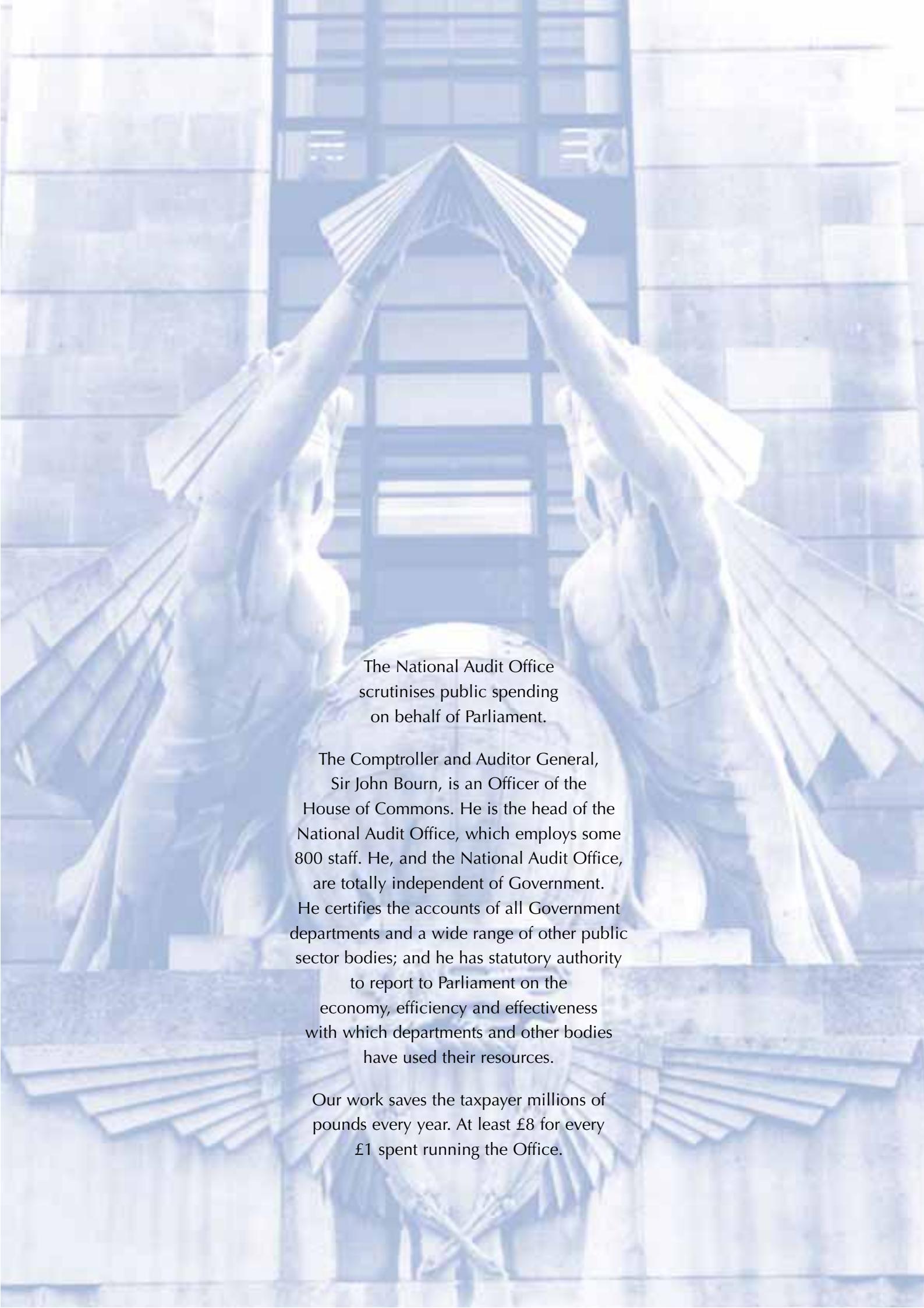


Department of Health

# Improving Emergency Care in England

REPORT BY THE COMPTROLLER AND AUDITOR GENERAL  
HC 1075 Session 2003-2004: 13 October 2004





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This report has been prepared under Section 6 of the  
National Audit Act 1983 for presentation to the House  
of Commons in accordance with Section 9 of the Act.

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# Summary

- 1** A visit to accident and emergency (A&E) is many people's only contact with the NHS hospital sector. There were some 12.7 million visits to these major A&E services in the last year, and in around a fifth of these, patients were admitted to hospital. Emergency admissions both through A&E and direct to hospital wards in 2002-03 totalled 4 million; by comparison non-emergency admissions were 3.7 million<sup>i</sup>. A&E departments are only one in a variety of NHS emergency care providers which include: ambulance services; GPs; primary care trusts; out-of-hours services; NHS Direct; and open access minor injury centres<sup>ii</sup>.
- 2** In 2000, the Department of Health (the Department) set a range of emergency care access targets in *The NHS Plan*.<sup>1</sup> Patients had identified the reduction of A&E waiting time as the improvement they would most like to see and the Department gave a high priority to ensuring that, by December 2004, no-one would spend more than four hours in A&E<sup>iii</sup>. The *Reforming Emergency Care* policy document<sup>2</sup> of 2001 set the targets in a wider context of modernisation, envisaging increased capacity, reduced fragmentation, wider access and consistency of services as well as new professional roles and ways of working.
- 3** We examined (Appendix 1) whether there had been progress against the key target for maximum total time spent in A&E as well as with the wider modernisation of emergency care. We found that:
  - in A&E departments there has been a significant and sustained improvement in waiting times and also improvements in the environment for patients and staff. There are, however, groups of patients such as people requiring admission (often older people) who still have a higher risk of spending longer in A&E than the four-hour maximum, and the worst performing trusts are some way behind the rest (Part 1);
  - these beneficial changes have come largely through improved working practices and local investment within A&E departments. Further major improvements in care and patients' experience within A&E departments will depend on further improving the way the whole hospital and other health and social care providers work to manage the flow of patients. There is also a need to ensure that staffing and infrastructure for A&E departments are adequate for modern care provision (Part 2);
  - amongst other providers of emergency care, there are good examples of services becoming more patient-centred, but full integration of services has not yet been achieved. The provision of new sources of emergency care has had a positive response from patients but is mainly addressing previously un-met demand rather than taking pressure off existing services (Part 3);
  - as a means of securing necessary integration of services, local emergency care networks are a promising development. Many networks are still in their infancy and lack the authority and funding to bring about co-operation across the various providers of emergency care (Part 4).

*i* Includes waiting list, booked and planned cases, but excludes day cases.

*ii* Such as Walk-in Centres and Minor Injury Units, referred to by the Department as Type 3 A&E departments.

*iii* The Department has announced that from April 2005 the four-hour maximum total time in A&E will no longer be considered a national target but will be part of the framework of health and social care standards that organisations and health economies will be expected to meet, and performance will be assessed by the Healthcare Commission along with the other standards.

## Improvements in time spent and patients' experience in A&E departments

- 4** Since 2002, all trusts have reduced the time patients spend in A&E, reversing a previously reported decline in performance. In 2002, 23 per cent of patients spent over four hours in A&E departments, but in the three months from April to June 2004 only 5.3 per cent stayed that long<sup>iv</sup>. Some trusts now treat nearly all their patients within four hours and the variation among trusts has reduced significantly. The Department's use of financial incentives, active management of performance and support for trusts has helped achieve this.
- 5** The four-hour target focuses on reducing long stays in A&E. However, there is a risk that undue focus on meeting the target could mean less attention being paid to the timely completion of treatment for patients who could in fact be safely managed in far less than four hours, or those who had already exceeded that threshold. We noted some risks to arrangements for accurately measuring and reporting patients total time. The Healthcare Commission is carrying out work in 2004 to assess the quality of the data on performance against the target and has yet to report.
- 6** The reduction in total time spent in A&E does not appear generally to have been achieved at the expense of other key objectives. For example many trusts have been able to sustain significant reductions in time spent in A&E while also reducing numbers of cancelled operations.
- 7** These notable achievements overall in improving time spent in A&E mask differences for specific groups of patients. Very few children and "minor" patients<sup>v</sup> now spend longer than four hours. But there remains some room for improvement as regards patients with more complex needs (who include many older people and some with mental health needs). For example, 23 per cent of the patients needing admission to hospital, many of them older people, still spend more than four hours in A&E.



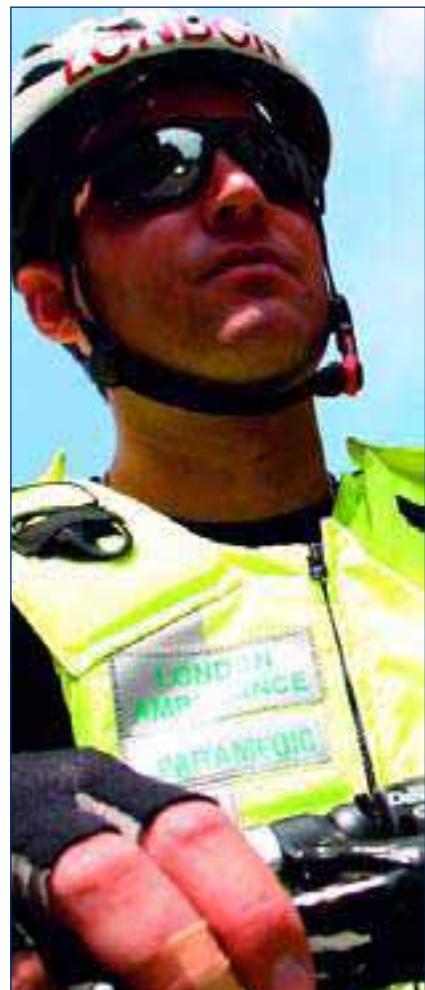
- 8** There is evidence that reducing the time patients spend in A&E has led to increased patient satisfaction. The Department has also funded physical improvements to the environment in A&E to help reduce stress for both patients and staff, and this contributes to an improved perception of the quality of care.
- 9** Measurement of the quality of clinical care and national benchmarking has been much more limited. A full range of formal measures/care pathways, which would help staff, patients and the Department judge the quality of care provided, has yet to be put in place for A&E. Not all trusts contribute to national audit of trauma care. However, work on quality measures is now beginning to gain momentum.

<sup>iv</sup> In all types (1, 2 and 3) of A&E department.

<sup>v</sup> Patients who can be treated and discharged relatively quickly, often following a simple diagnostic assessment. These patients often have a minor injury or illness.

## Modernising A&E departments, and the remaining obstacles

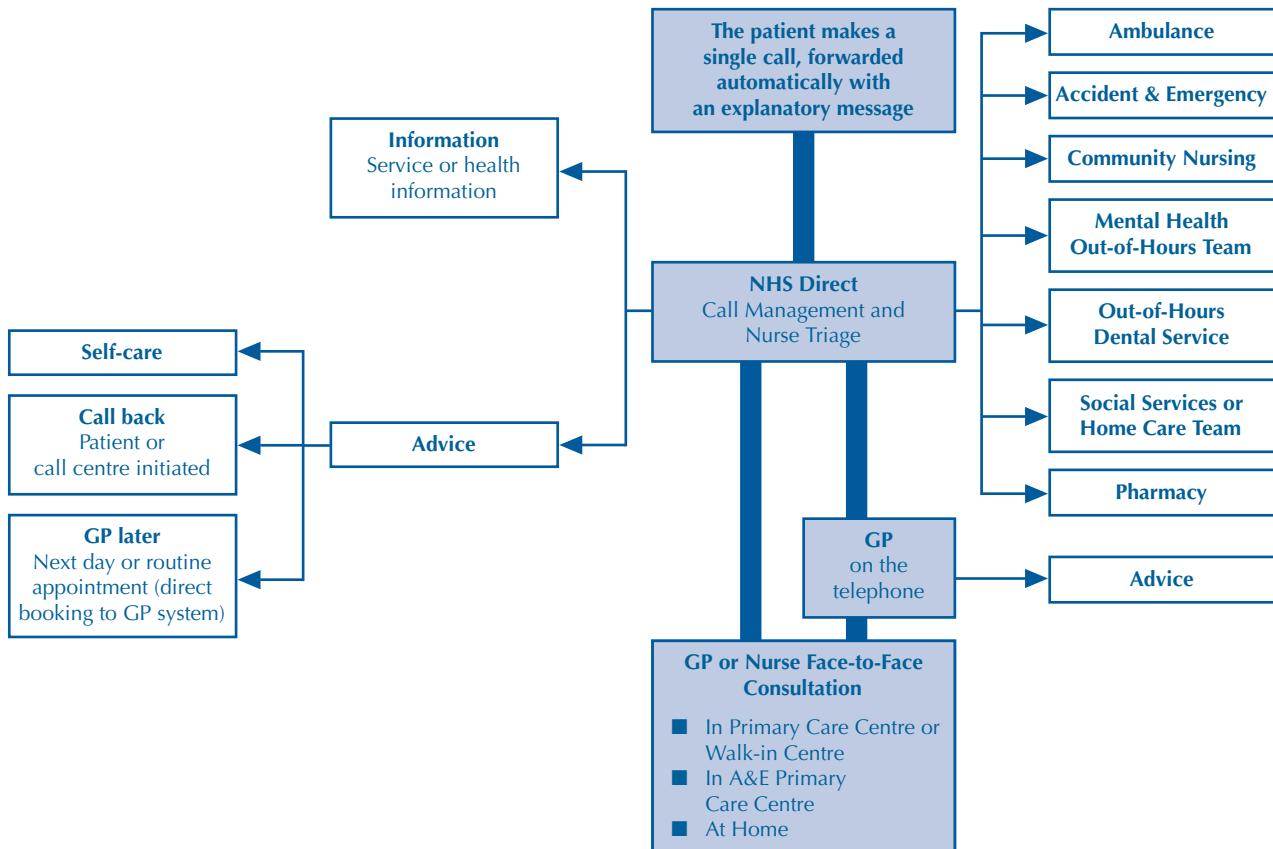
- 10** The Modernisation Agency's Emergency Services Collaborative (the Collaborative) ended as planned after two years, in September 2004. The Collaborative encouraged A&E departments to work with other parts of the system to identify their own causes of delay and trial practical solutions. The improvements that have occurred cannot be attributed to any single solution, but rather have resulted from numerous changes to traditional working practices. Key improvements include: separating patients into parallel streams with dedicated staff; and improving access to diagnostic services, this despite a national shortage of radiology, radiography and pathology staff. Many changes have been relatively low in cost though there has also been central and local funding for modernisation.
- 11** The bottlenecks which still cause delay, in particular for patients in A&E who need to be admitted to the hospital, go beyond those working practices under the control of A&E departments and reflect constraints in the health and social care system as a whole. These include:
- avoidable peaks and troughs in the availability of beds, caused by the way non-emergency admissions and discharges are managed;
  - delays in accessing a specialist opinion, caused by conflicts with specialists' elective work, and difficulties in obtaining authority to admit patients to wards;
  - gaps in liaison arrangements with psychiatrists or delays in accessing psychiatric beds for patients with mental health needs (estimated numbers are variable but these patients may average 1.5 per cent of A&E department users<sup>3</sup>).
- 12** The NHS workforce is growing across the board. However, we found that obtaining sufficient suitably qualified staff remains a problem for many A&E departments and there is no accepted model for staffing them. More than half of the trusts we surveyed reported shortfalls in consultants or other medical staff and a quarter were concerned about recruiting or retaining the right mix of experienced nurses to support new working practices. The problem is complex, as modern approaches focus on using staff in a better way, rather than increasing numbers, and various studies have failed to show a direct relationship between staff numbers in A&E and delays to patients. There are, however, clear gaps in the provision of staff with the specialist skills needed to deal with children, vulnerable older patients and patients with mental health needs.
- 13** Buildings cannot be modified as quickly as working practices and the design of A&E buildings often reflects now outdated arrangements. Most trusts were less than satisfied overall with their buildings and facilities, particularly those built in the 1980s. Even some new buildings did not always reflect good design practice, which had a negative effect on the flow of patients through the department and the quality of care provided.



## Modernisation of wider emergency care services around patients' needs

- 14 A&E is not the only source of emergency care, nor the most appropriate for all patients. The public continue to expect to be able to access unscheduled care via A&E and recorded attendance at major (Type 1) A&Es remains high. The Department stated in *Reforming Emergency Care*<sup>2</sup> that NHS staff should not consider any patient attending A&E as "inappropriate", but that its aim was to provide the most appropriate type of services at the location most convenient for patients.
- 15 The Department in 2001<sup>4</sup> envisaged all services linked through a single point of access in NHS Direct (**Figure 1**). Some progress has been made towards this in areas where NHS Direct is integrated with local GP out-of-hours services and the department plans to extend such integration across the whole of England by December 2006. The revised arrangements for NHS Direct to provide locally-commissioned services, as well as the recent changes in responsibility for GP out-of-hours services, provide an opportunity for primary care trusts to integrate emergency care services better. The implementation of these changes also presents risks, but the Department's Out-of-hours Exemplar Programme provides a set of models of out-of-hours access to draw on.<sup>vi</sup>

### 1 The Department's vision for access to emergency care



Source: Department of Health, 2000

<sup>vi</sup> The 34 different service models in the Out-of-hours Exemplar programme cover 20 per cent of the population of England.

- 16 With its increasing emphasis on unscheduled care, the Department has brought in a range of new open-access minor injury and illness providers, of which the programme of 81 Walk-in Centres has the highest profile. These were introduced to complement GP and A&E services for patients with minor injury or illness. Patients' response has been generally positive and attendances continue to rise: 1.6 million people used Walk-in Centres in 2003-04. More recently, some Walk-in Centres co-located with A&E are helping to manage demand at these sites. However, the Department consider that the initiative is in many places satisfying a demand that was previously un-met, and the impact in terms of reducing attendance at A&E nationally is minimal.
- 17 Locally there are examples of practitioners and organisations redesigning the way they work around patients' needs. There are also examples of re-routing ambulance callers or A&E patients to a more suitable provider. Some ambulance trusts have taken the lead locally to glue the whole system together, particularly through the development of the Emergency Care Practitioner who has autonomy to treat and make decisions about patients. Ambulance trusts already have the freedom to avoid taking patients to A&E if there is a more appropriate option. By giving local health economies the freedom to set local standards for non-urgent (Category C) calls from 1 October 2004, the Department is aiming to encourage greater flexibility in the way they manage demand.
- 18 We noted initiatives, both locally and under National Service Frameworks<sup>vii</sup>, to manage chronic disease in primary care and to improve mental health services for people at risk of psychiatric crisis. Locally, these have achieved reductions in attendances at A&E by specific groups of patients. More generally, the reductions in waiting times for planned hospital treatment mean that patients are being treated more quickly and may also help in some cases to reduce the need for emergency care.

## Promoting joint working in emergency care through stronger emergency care networks

- 19 In line with its view of emergency care as a whole-system issue, the Department in 2001 advocated emergency care networks<sup>2</sup> (cross-organisational and multi-disciplinary groups) to take a leading role in developing local delivery - and provided some funding to pay for clinicians' time in the development of these networks. There is a clear need for improved joint working but many networks are still in their infancy. Unlike, for example, those for cancer services, emergency care networks do not usually have dedicated managers or have any direct control over funding of services, and we found they lacked a well-defined role in influencing decision-making. Few could point to truly cross-organisational successes.

<sup>vii</sup> There are currently eight National Service Frameworks, covering Coronary Heart Disease, Cancer (The Cancer Plan), Paediatric intensive Care, Mental Health, Older People, Diabetes, Renal Services and Children. A framework for Long Term Conditions is being developed. Each framework sets out national standards and strategies to drive improvement in a defined service area or group of patients.

# Recommendations

- 20** The Department and the NHS have made significant and sustained improvements in A&E waiting times, though more needs to be done. Achieving the Department's vision for whole-system modernisation of emergency care will require greater integration and more effective joint working.



## Achieving and sustaining further improvements in time spent and patients' experience in A&E:

- 1 Avoidable peaks and troughs in inpatient numbers, which are one of the main causes of delays for patients awaiting admission to a bed, can be identified using simple bed management tools. The Department provides one; there are others. All **acute trusts** should use them to reduce the significantly higher incidence of delays to A&E patients requiring admission. The *Wait for a Bed Checklist* and the NHS Modernisation Agency's *Making Best Use of Beds* programme should also be used by trusts to improve the flow of patients.
- 2 To help reduce any remaining delays caused by A&E access to diagnostic services, **acute trusts** should draw on approaches such as widening traditional staff roles and greater use of information technology and remote access, always ensuring that these are properly risk-assessed. This should be a key part of the NHS-wide programme of improvements to diagnostic services scheduled to be completed by 2008.
- 3 The four-hour total time is a measure of the maximum time any patient should require in A&E or a minor injury service. Many patients, particularly those with minor injury or illness, require much less time in A&E. **All service providers** should monitor their processes and performance and make use of local benchmarking, to ensure that no patient spends more time there than is clinically necessary.
- 4 To contribute to modernisation of working methods in A&E, and to improve the experience for patients, **acute trusts and primary care trusts** commissioning any emergency care new-build or refurbishment projects should incorporate the latest good design practice which has been developed by NHS Estates. They should include as matter of course consideration of patient safety aspects and effective consultation with staff and users.
- 5 **Primary care trusts** should use the setting of objectives and allocation of funding to require both A&Es and minor illness/injury providers to sustain and build on achievements in reducing time spent by patients, and to encourage organisations to work together.
- 6 There is now considerable evidence of what works well in the management and staffing of A&E departments, but trusts felt that they needed more central assistance in obtaining the right number and type of staff. **Strategic health authorities/ Workforce Development Confederations** should promulgate as soon as possible the results of trials of the A&E department workforce planning model. They should also agree plans to address the shortfalls in skilled staff through workforce planning.



## Improving the integration of emergency care services around patients' needs:

- 7 In view of the particular needs of children, older people and patients with mental health needs in A&E, **acute trusts** should assess their services for these groups against the requirements of the National Service Frameworks in terms of facilities, specialist advice and staff training, and set in train action plans to meet any shortfalls.

- 8 **Emergency care networks** should analyse the care pathways of vulnerable patients, including frail older people, children and those with mental health needs who attend A&E to identify improvements to the clinical quality, safety and experience of their journey through the emergency care system. Improvements may involve design of new working arrangements between partner organisations or making better use of existing systems.
- 9 To contribute to the aim of patients being treated by the most appropriate professional and in the most cost-effective setting, **emergency care networks** should achieve maximum flexibility in the range of emergency care providers to which ambulance services transport or refer patients, working within clinically appropriate pathways and guidelines. They should eliminate any real or perceived barriers to achieving this.
- 10 Given the key role envisaged by the Department for NHS Direct in routing patients to emergency care, **emergency care networks** should involve NHS Direct fully in local emergency care planning, drawing on the lessons learned from the Out-of-hours Exemplar Programme. This will be key in achieving the plan for full integration by 2006.
- 11 Increasingly, emergency care practitioners are delivering emergency care in settings in and out of hospital. The range of models of this role in use, however, makes it hard for practitioners to transfer from place to place. **The Department** nationally should now draw together and publish the evidence on the contribution of these practitioners and clarify the skills and competencies of the role to provide a greater degree of consistency nationally.
- 12 The standard for "call-to-needle" time before administration of thrombolysis to a heart attack patient is one example of a whole-system quality measure. **The Department** should support the development by emergency medicine experts of performance indicators, care pathways and associated measures for emergency medicine. These should cover at least the main emergency care groups of patients.
- 13 **Health economies**, when introducing new emergency care facilities such as Walk-in Centres, should make explicit their financial and quality of service assumptions and objectives, and model the likely impact of the new service on all local healthcare organisations. The modelling should ensure value for money is being achieved by drawing on best practice and current evidence. They should set a timescale for evaluating the actual impact and validity of the assumptions.

### Improving joint working in emergency care

- 14 Where they have not already done so, **emergency care networks** should clarify by April 2005 their role in supporting primary care trusts and strategic health authorities in relation to emergency care commissioning, accountability, governance and performance management. Networks should agree any resource implications with all partners.
- 15 The objectives of emergency care networks should reflect national delivery and quality standards but focus on local priorities for the whole of the emergency care system of the health economy. **Emergency care networks** should agree measurable network objectives, which support delivery of the Local Delivery Plan, with all partner organisations at board level, and publish these for staff and patients.
- 16 **The Department through strategic health authorities** should maximise opportunities for the dissemination of good practices by supporting links between the individual networks both within strategic health authorities and across England.



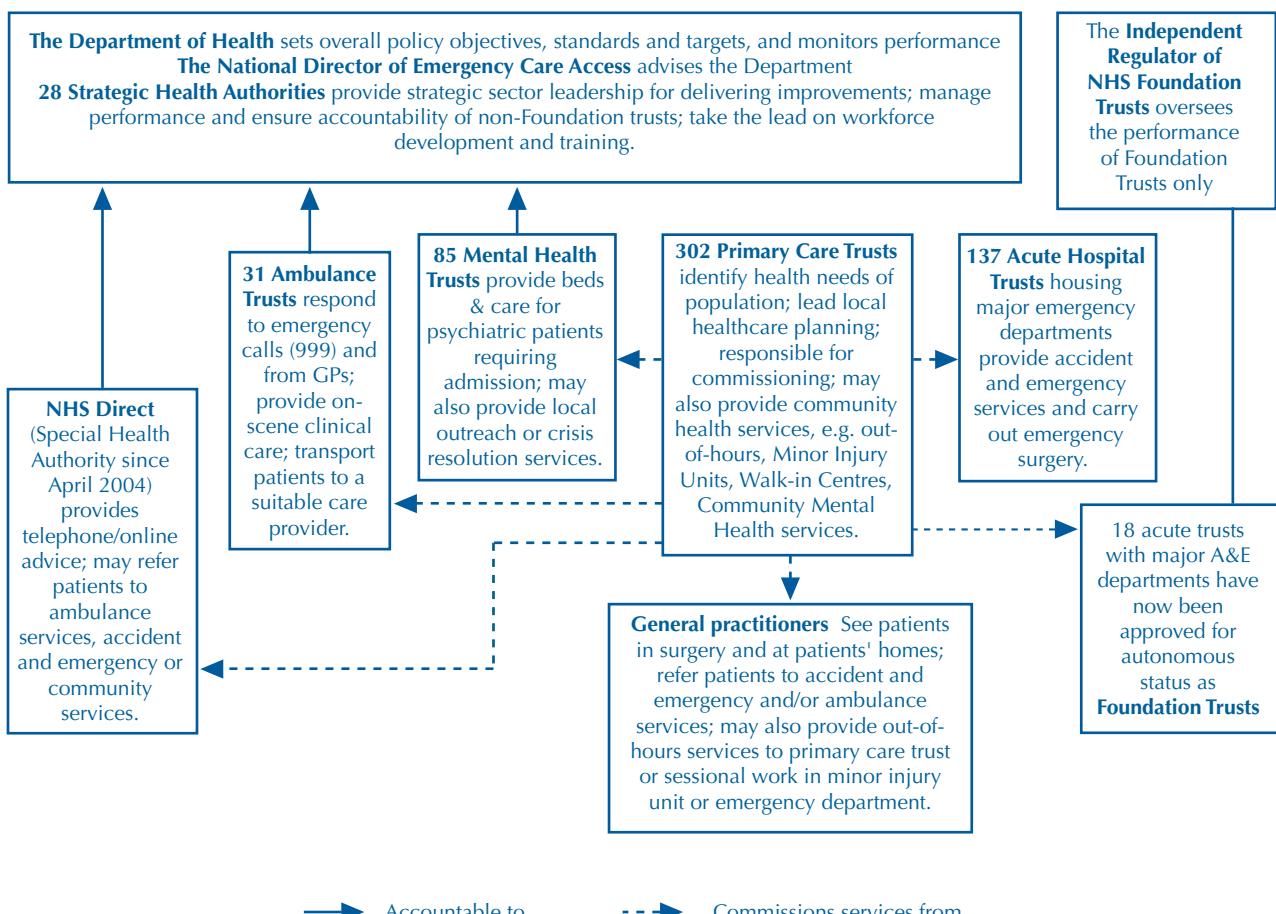
# Part 1

**Against a high level of demand, A&E departments have achieved significant improvements**

- 1.1 Emergency care, as opposed to elective (planned) care, is a very large part of the NHS's work (**Figure 2**). For several years annual new attendances at A&E have been around 13 million; in 2003-04 the total (including for the first time attendances at the smaller Type 2 and Type 3 Services) reached 15 million. Ambulance trusts now

make nearly 3.5 million journeys a year (Appendix 2). Accurately estimating the overall annual cost of emergency care is difficult, but A&E services alone cost more than £1 billion. For many people, visiting A&E is their only contact with the NHS hospital sector.

## 2 Healthcare organisations involved in emergency care in England



### NOTE

There are also 13 independent air ambulance services tasked by ambulance trusts and 4 police helicopter services with medical crew and equipment. Aircraft capital and running costs are provided by independent charitable trusts, while crews (paramedics or doctors) are usually from acute or ambulance trusts.

Source: National Audit Office

- 1.2 We reported in 1992 on Accident and Emergency Services in England<sup>5</sup> (Appendix 3) when we recommended measures to improve the management of A&E departments' rising workload, at that time 11 million a year<sup>viii</sup>. By 2000, there were well-documented problems with lengthy waits for treatment in A&E, especially by older patients, though there were then no accurate national measures of total time spent. Patients with minor problems often waited longest, as the triage system meant all patients were treated in priority order. Research showed that reducing waiting times in A&E was the second most important indicator for the public of improvement in NHS services (after increased numbers of doctors and nurses)<sup>6</sup>. Among patients actually using A&E, waiting time was the aspect they considered *most* important.
- 1.3 In The NHS Plan (2000)<sup>1</sup> and subsequently, the Department set a range of emergency care targets (**Figure 3**), of which reducing delays in A&E had a high profile. The Department also recognised that to reduce waits in a sustainable way, at the same time as improving the standards of care, there was a need to address a range of issues in the whole system of delivering emergency care. Their proposed modernisation approach was set out in *Reforming Emergency Care* (2001)<sup>2</sup> and envisaged a system where:

- all services are designed from the point of view of the patient;
- patients receive a consistent response, regardless of where, when and how they contact the service;
- patients' needs are met by the professional best able to deliver the services they need;
- information on patients is shared across the system for the benefit of patients;
- assessment and treatment is not delayed through the absence of diagnostic or specialist advice; and
- emergency care is delivered to clear, consistent and measurable standards.

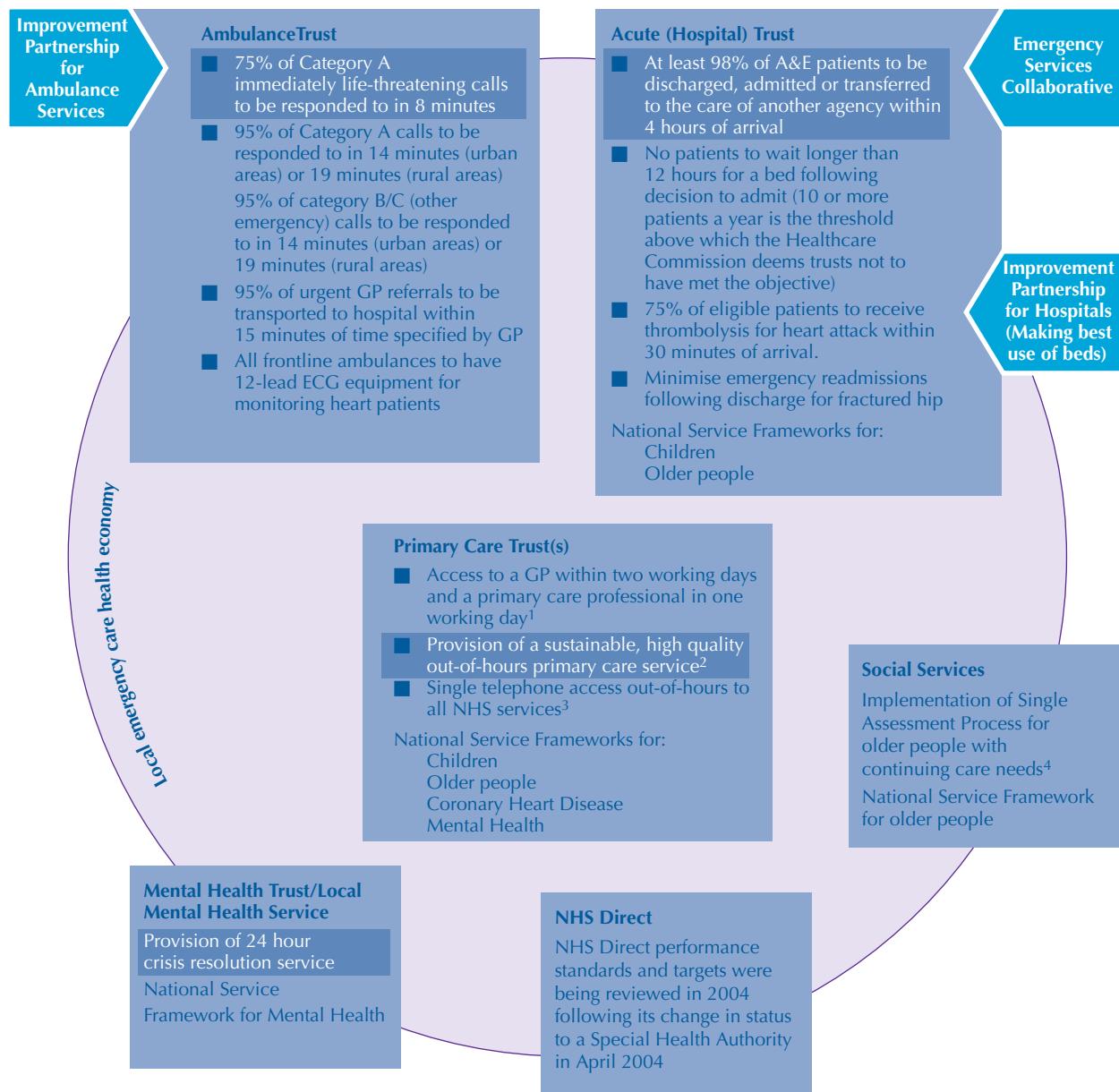
**This part** of the report sets out the Department's achievements in reducing time spent at A&E departments as well as in improving the quality of service to patients in A&E.

## Significant progress has been made against a key *NHS Plan* target

- 1.4 The target requires acute trusts in England<sup>x</sup> by December 2004 to ensure no patient spends longer than four hours in A&E from arrival to admission, transfer to the care of another agency, or departure. There had been previous attempts to reduce the time from arrival to first contact with a clinician, but the new measure recognised that patients wanted to see the *total* time they spent in A&E reduced. When the Audit Commission<sup>7</sup> reported on performance in 2000 they concluded that time spent in A&E varied widely and appeared to have worsened since 1998. There was also a lack of clear information about the causes of delays at that time.
- 1.5 Since then the Department has focused strongly on driving improvements, using a combination of financial incentives, close performance management of trusts and support for those requiring it (for example the Emergency Services Collaborative and the Improvement Partnership for Hospitals' "Making best use of beds" programme). Achievement of a March 2003 milestone of 90 per cent performance was linked to trusts' star ratings and achievement of further thresholds entitled them to performance incentive payments.
- 1.6 There has been both significant progress overall and a reduction in variability between trusts since formal measurement began (**Figure 4**). In April 2004, the four-hour target was also extended to cover all NHS Walk-in Centres and Minor Injury Units. All organisations covered by the four-hour target measure their own performance weekly, as well as providing quarterly returns which are published. Inclusion of attendances at Walk-in Centres and Minor Injury Units from April 2003 has contributed to a rise in published data on attendances. At the same time, the data on major A&Es alone show a rise of 5% in recorded attendances when Quarter 1 of 2004/05 is compared to Quarter 1 of 2003/04, from 3.21 million to 3.38 million. An initial comparison of Quarter 2 of 2004/05 with the same period last year, however, shows an estimated rise of only 2%. Published data is not yet available for Quarter 2 so this may be subject to minor change when final figures are available in November. The Department considers that the fluctuation in major A&E attendances data is at least partly caused by improved measurement techniques and generally improved reporting and is monitoring the situation.

<sup>viii</sup> Note that direct comparison with 2004 attendance is difficult because data collection has become more comprehensive and accurate since 1992. The NHS in Scotland does not have a similar target but measures the length of time within which 90 percent of patients are dealt with in A & E. The NHS in Wales introduced a target for 95 per cent of patients to be dealt with in four-hours in September 2003. In Northern Ireland, the Department of Health, Social Services and Public Safety introduced a different target designed to reduce, by one third in the year to March 2005, waits of more than two hours for patients requiring admission.

### 3 A range of standards, targets and performance incentives have driven providers of emergency care



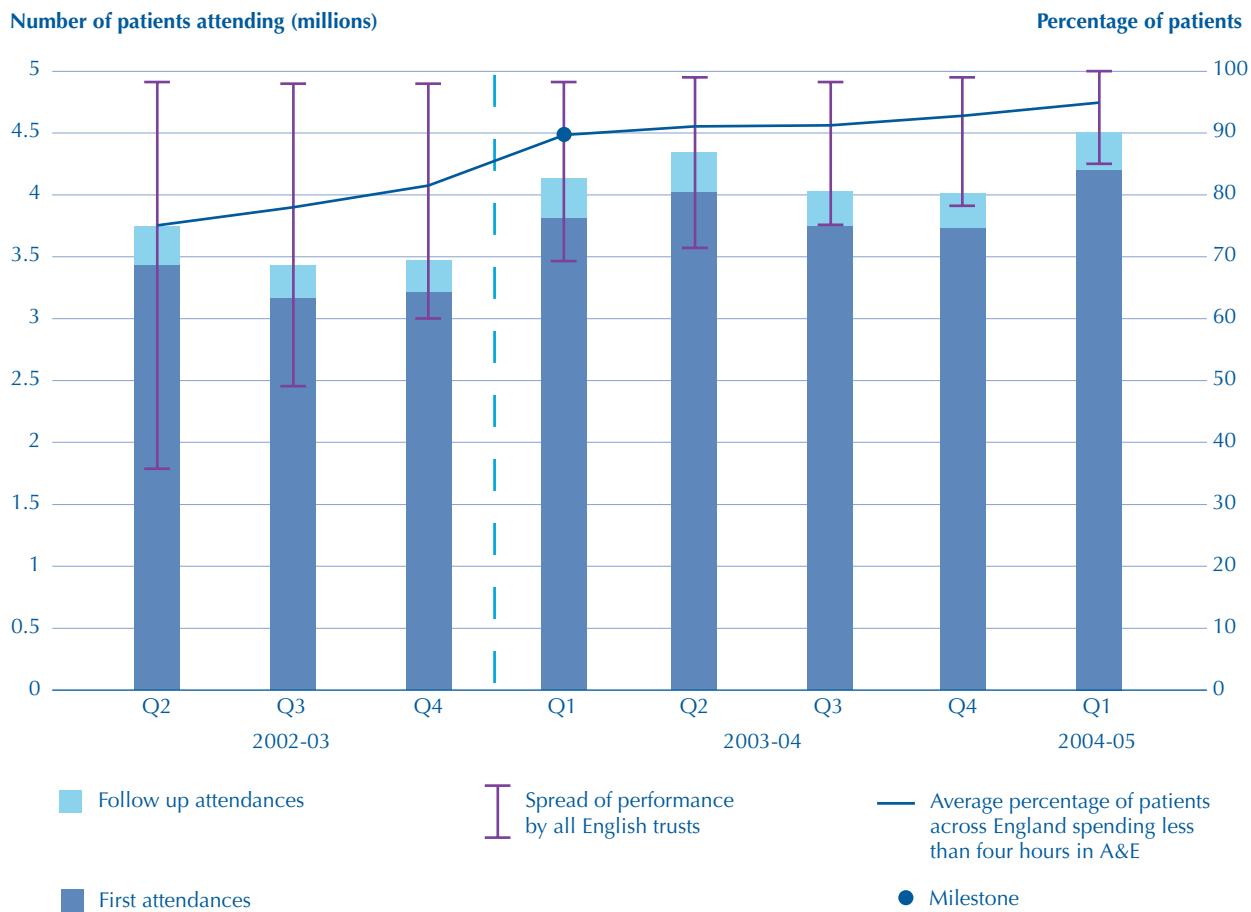
■ Part of star ratings 2003-4   ■ Department of Health capital incentive scheme applies   ■ National improvement initiative or scheme

#### NOTES

- 1 100% delivery by December 2004.
- 2 Primary Care Trusts are responsible for out-of-hours services where GPs opt out, from April 2004.
- 3 By December 2004.
- 4 From April 2004.

Source: National Audit Office

**4 Against continuing high levels of attendances, the proportion of A&E patients dealt with in less than four hours has risen steadily**



**NOTE**

Complete national data on performance against the target was collected by the Department from quarter 2 of 2002-03 only; data on performance from Q1 2003-04 onwards includes all types (1, 2 and 3) of A&E departments while before this date only Type 1 departments were included (see paragraph 1.6).

*Source: National Audit Office analysis of Department of Health data*

The target has become widely accepted by clinicians

- 1.7 The four-hour target was initially criticised by clinicians who felt that pressure to achieve it could conflict with clinical priorities, resulting in adverse effects on patients such as being discharged precipitately or admitted unnecessarily. No suitable data are available to demonstrate conclusively whether or not this has in fact occurred. National data shows the proportion of A&E patients admitted has risen slightly since 2001 from 16 per cent of attendees to around 17 per cent.
- 1.8 Clinicians were also concerned that the four-hour maximum did not reflect an appropriate cut-off point for some patients. After discussions with clinicians' representatives, the Department in December 2003 agreed that there were certain clinical exceptions where only an A&E department offered the facilities and expertise that are most suited to the patient's condition

and that such a patient might reasonably need to stay longer than four hours. To allow for this small number of exceptions, the Department agreed that it would consider providers to be meeting the target from January 2005 if they ensured that at least 98 per cent (rather than 100 per cent) of patients stayed less than four hours.

- 1.9 At the time of the first milestone in March 2003, a number of clinicians expressed concern about the sustainability of extra staff resources put in place by some trusts to boost performance<sup>8</sup>. The data showed there was indeed a sharp rise in performance at virtually all trusts at that period with most managing to meet the target, followed by a small fall at the end of March. But average performance in general remained around eight per cent above previous levels and has risen steadily since January 2004. We found a general consensus among clinicians and managers that the four-hour target had a beneficial effect through focusing attention on reducing delays.

## The Department used financial and other incentives to drive progress

1.10 Between March 2004 and March 2005, trusts which can maintain 94 per cent and gradually improve to the 98 per cent minimum performance requirement will be able to claim up to £0.5 million in incentive payments. Under the incentive scheme (which is optional to NHS Foundation Trusts) by July 2004, some 107 acute trusts had been awarded a total of £17.4 million, to be spent on capital projects only.

1.11 As an indication of the importance the Department attaches to achievement of the target, all trusts in England were asked by strategic health authorities to provide an analysis of cases where patients spent more than four hours in A&E during February 2004 and details of the plans they had in place to reach the target of 98 per cent. In June the Department wrote to all strategic health authorities recognising progress to date but stating that performances of less than 90 per cent were no longer acceptable. From October 2004 this level is to be raised to any performance below 96 per cent. Strategic health authorities require trusts to report weekly on any failure to reach this level.

1.12 The Department has announced in *National Standards, Local Action*<sup>9</sup> that, from April 2005, the four-hour maximum total time in A&E will no longer have the status of a national target but will become a national standard against which all trusts will be expected to perform. The Healthcare Commission will measure performance.

## Reducing time spent in A&E does not appear to have adversely affected other goals

1.13 Traditionally A&E has lacked a strong profile or status within trust management, compared with medical or surgical departments. But we found much evidence that the focus on the four-hour target has increased the amount of senior management attention devoted to managing this part of the hospital.

1.14 With bed availability at a premium at many trusts there is a potential tension between the four-hour target and other key targets, such as reducing waiting times for elective operations. Trusts must balance these objectives within overall budgets and demands on clinicians' time. We found that there was a weak but significant relationship between trusts performing well against the emergency care target and performing well in terms of cancellations of operations and optimum bed availability, suggesting that successful trusts were not meeting the A&E time target at the expense of other targets.

1.15 We also looked to see if there was a link between the ability of trusts to make progress against the target and the number of patients attending their A&E departments, on the basis that larger departments might be under greater pressure or conversely might have greater flexibility to make improvements. We found no correlation - both high and low volume departments had been able to achieve reductions in delays.

## There are risks to using a maximum limit on time spent in A&E

1.16 The Department also stated in 2000 that it expected average total time spent in A&E to fall to 75 minutes, though it later dropped this average total time target because it considered that, as with a 100 per cent target there could be potential conflict with clinical judgement. Many trusts have achieved significant reductions in average total time, some to well below two hours, but because there is no national target for average total time, no national data is collected. The focus on a maximum rather than average time does itself carry risks:

- a small number of patients may still be waiting a long time for a simple procedure;
- staff attention may be switched to dealing with patients who are in danger of breaching the four-hour target rather than with those in greater clinical need; and
- once a patient does breach four hours there may be less incentive to expedite their admission or transfer, particularly where there is pressure on beds.

## There are some limitations on the quality of the performance data

1.17 Management information systems in A&E departments were mostly designed well before the four-hour target was introduced and some are more than ten years old<sup>10</sup>. Strategic Health Authorities are responsible for managing the quality of data and the Department carries out cross-checks on it but this does not amount to full validation - trusts are responsible for the quality of their own data. Our small sample review of arrangements for recording time spent indicated weaknesses, including lack of real-time data-entry, but some trusts had allocated extra resources for generating and checking data. For example, St Thomas' Hospital had two part-time validators and two of five A&E departments we visited were planning replacement IT systems. In April 2004 the Healthcare Commission assumed responsibility for assessing the quality of the data from the Audit Commission but it has yet to report.

## There are significant differences for different groups of patients

1.18 The published data does not break down trusts' waiting time performance by type of patient, such as children and older people, but the Department required trusts to analyse breaches of the four-hour maximum by three groups (**Figure 5**). While the great majority of patients with minor injury or illness were dealt with in less than four hours, a larger proportion of patients who had more serious conditions or required admission stayed in A&E for longer than that.

### **5 Patients who require admission to hospital more often spend longer than four hours in A&E, compared with other patients**

Type of patient	Proportion of total attendees	Percentage of this group waiting more than four hours in A&E
Minor	57 per cent	2 per cent
Major not admitted	23 per cent	7.5 per cent
Admitted to hospital	20 per cent	23 per cent

#### NOTE

The classification of patients into "major" and "minor" categories is at the discretion of trusts treating them and is therefore subject to some variation. Admitted patients are clearly distinguishable.

*Source: Department of Health data from a small, representative survey of trusts in August 2004*

1.19 The age distribution of patients between the groups (around a quarter of admitted patients are over 75 although over-75s make up only ten per cent of total attendees) means older patients are more likely to spend longer than four hours in A&E. Minor patients (who are predominantly younger) experience fewer delays. The Department's data showed that 18 per cent of patients aged 75 and over spent longer than four hours, compared with 2.4 per cent for under 14s.

1.20 Departmental data from 2004 showed that one in three patients with mental health needs also spent more than four hours in A&E, accounting for ten per cent of the delays in some trusts<sup>11</sup>, though these patients comprised on average only 1.5 per cent of attendances.

## Patients' experience in A&E departments is improving and formal quality of care measures are developing

1.21 The first national survey of A&E patients was conducted by the Commission for Health Improvement in 2003<sup>12</sup>. It found 32 per cent of patients rated the care they had received in the emergency department as excellent, 35 per cent as very good and 18 per cent as good. Nine per cent rated it as fair and five per cent said it was either poor or very poor.

1.22 Some trusts have been carrying out their own patient surveys for some years and for A&E departments with higher percentages of patients handled within four hours, patients' satisfaction has indeed risen. For example, at St Thomas' Hospital, where the proportion of patients spending less than four hours in A&E had increased from less than 60 per cent to more than 90 per cent between 2002 and 2004, complaints from patients had fallen by half.

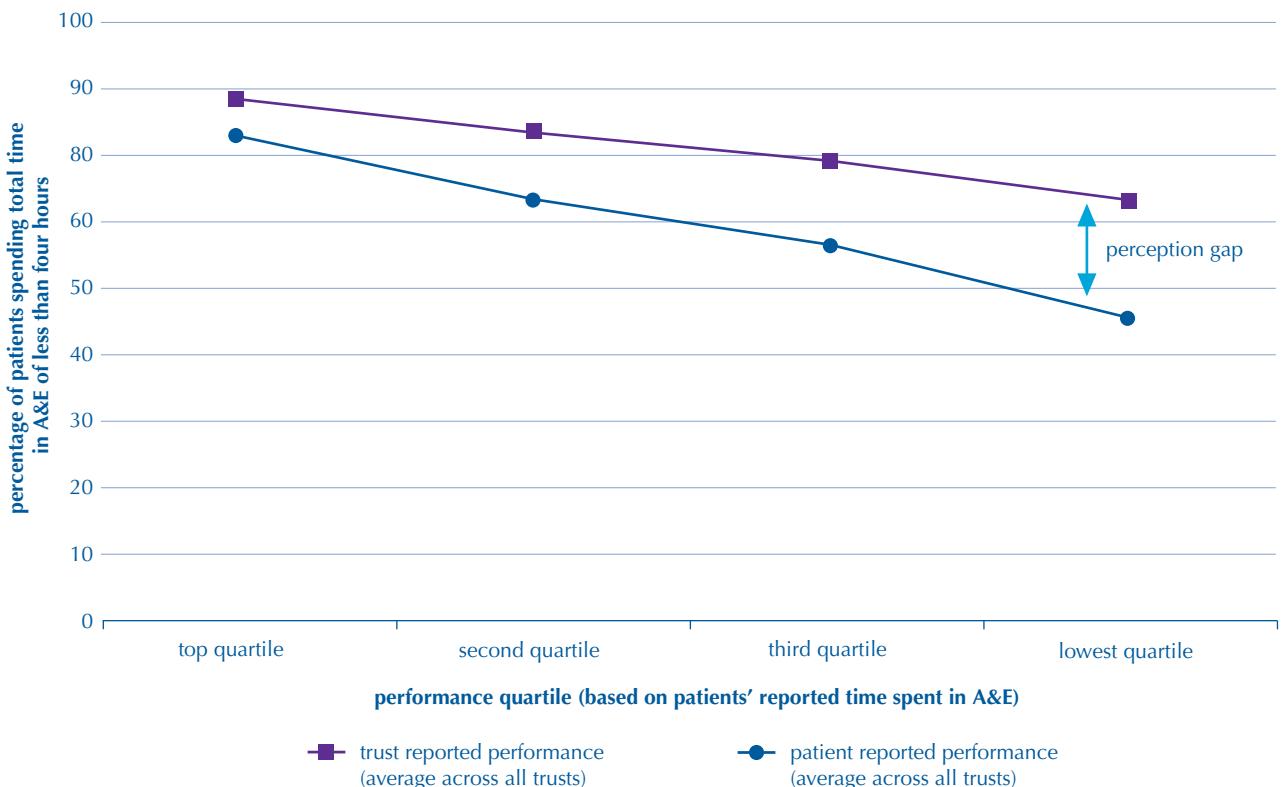
1.23 Studies show patients waiting inactively for a service report longer delays than were actually the case<sup>13</sup>; this effect may be greater if they are suffering pain or worry or do not understand why they are waiting. The Department found, despite improvements in total time spent overall, a perception gap between the time patients feel they waited and the time they actually spent. This was greater, the longer the actual wait (**Figure 6**).

## The Department provided funds to improve patients' experience in A&E

1.24 Departmental research<sup>14</sup> showed that patients in pleasant and welcoming surroundings felt calmer, more respected and valued, and better cared for, and **Case example 1** shows how one trust has improved the environment of its A&E department. In April 2003, the Department awarded £10,000 each to A&E departments with Modern Matrons to improve facilities and information for patients<sup>15</sup>. In deciding how to spend the money many trusts consulted staff; some also used feedback from patients and reviews from NHS Estates and the Commission for Health Improvement. For example:

- North Bristol NHS Trust elected to purchase high-seated chairs for older patients, provide hot and cold water dispensers in waiting rooms and new trolley toppers and curtains for both its A&E departments. It also plans to purchase electronic display boards with real-time information on waiting time ; and
- Queen's Medical Centre, Nottingham University Hospital NHS Trust decided to improve examination facilities for minor patients and buy appropriate furniture for the adolescents' waiting area.

## 6 Perception gap between trust performance and patients' perception of performance, as regards time spent in A&E



*Source: Department of Health data, January 2003*

### CASE EXAMPLE 1 Improving the environment for patients

Hillingdon Hospital's A&E Department was Highly Commended in the NHS Estates Building Better Health Care Awards, 2000, after it was refurbished and expanded. Natural light was increased by using structural silicone glazing and by cladding the main entrance and waiting area with white curtain-and-block work. The Trust used its grant from the King's Fund "Enhancing the Healing Environment" Programme to improve the arrangement of the department, introducing circular fixed seating, an upgraded reception and lavatories, and a redesigned interior with integrated artwork, planting, murals and photographs to provide positive distraction for patients.

1.25 All trusts used the money for improving patients' experience; we also found some had used the money for basic treatment and diagnostic equipment. Not all trusts had appointed an A&E department Modern Matron and some had had difficulties obtaining the funding through primary care trusts - by March 2004 only 58 per cent of departments had claimed and received it. By September 2004, however, 127 A&E departments had claimed and received their entitlement.

1.26 Particularly for some trusts, dealing with patients who require urgent attention in A&E but do not speak English as first language can be difficult. The NHS sponsored the British Red Cross to produce in February 2004 a booklet of key phrases in 26 languages which could help aid diagnosis and care of the patient.

## Quality of care measures are developing

1.27 The measurement and national benchmarking of quality of care provided in A&E departments has been very limited, compared with inpatient services. Outcome indicators have been difficult to construct because in many cases the outcome may not be apparent when the patient leaves A&E. A&E clinicians only follow up a small proportion of patients, for example in review clinics and the lack of integrated patient records means that it is not normally possible to track their progress.

1.28 One well-established but voluntary measure is for trauma patients. In 2003-04 half of all hospitals forwarded data to the United Kingdom Trauma Audit and Research Network. The Network keeps a database to record patient mortality in trauma cases and provides reports to NHS trusts showing the comparison between their trauma care arrangements and those of other trusts in an anonymised way. It also compares expected probability of survival and actual outcome, by patient. Clinicians can use this information to review and find ways of improving their trauma care systems at trust or regional level.

1.29 Further measures of quality of care are now being developed. Research during 2001 invited a group of 33 emergency care experts to identify potential indicators<sup>16</sup>. They agreed on 36 indicators, which need to be tested for reliability, validity and responsiveness before being proposed for national implementation. The Healthcare Commission, in conjunction with the British Association for Emergency Medicine, has since developed three clinical audit tools on the indicators for paracetamol overdose, pain in children and fractured neck of femur (broken hip). Trusts have audited their own performance against these indicators; the Healthcare Commission is aggregating the findings.

1.30 The National Patient Safety Agency has carried out risk assessments to identify patient safety issues in emergency care and priority areas for action. Some examples of potential risk areas which are being considered as part of the prioritisation process for work in 2005 and beyond are:

- issues relating to transfer of care such as insufficient patient information to enable the receiving clinician to deliver timely and appropriate treatment;
- failure to diagnose patient's condition because of delays in receiving test results or inadequate assessment by the clinician;
- difficulties in obtaining an accurate patient history because of language interpretation problems;
- patients being given inappropriate treatment because of misidentification or test samples incorrectly labelled.

# Part 2

**A collaborative approach has helped modernise A&E departments, but there are still some obstacles**

- 2.1 This part examines the methods used to achieve the improvements in time spent in A&E, and identifies the remaining bottlenecks to providing good quality care to all groups of patients without delay. It shows that beneficial changes came initially through improved working practices within A&E departments. Further major improvements for patients attending A&E departments will depend much more on improving the way the whole hospital and other health and social care providers work together. It also examines the remaining obstacles faced by trusts in terms of staffing and infrastructure.
- 2.2 The Department expected trusts to meet the four-hour target through modernisation not just of A&E but of the way whole healthcare systems work, rather than simply speeding up existing processes or increasing the number of staff carrying out the same roles. It provided some central funding to help achieve this. Overall, however, additional central funds allocated over a five-year period to A&E departments were relatively small compared with the recurring spend on A&E services in the same period (**Figure 7**) and many improvements made by trusts have been relatively inexpensive.
- 2.3 The NHS Modernisation Agency led, from October 2002, the Emergency Services Collaborative (the Collaborative), a self-improvement programme for trusts based on a method previously used for cancer services and primary care. The Department allocated £30 million to supporting the Collaborative while trusts covered some of the costs of developing and trialling improvements. The Collaborative:
- included all acute trusts, spread over six staggered implementation waves of around 35 sites each, and ended in September 2004;
  - provided £115,000 per site to pay for a dedicated programme manager, statistical analysis input and clinical time on the project;
  - encouraged trusts to map and measure processes and flows of patients to identify the causes of delays, and use operational research techniques to help reduce variation in patients' journey time (**Figure 8**);
  - gave trusts access to academic research and sharing of best practice in A&E management with overseas services;
  - brought key staff from all trusts in a wave together;
  - provided an internet-based source of information and ideas for change for trusts;

## 7 Additional central funds spent on improving A&E departments

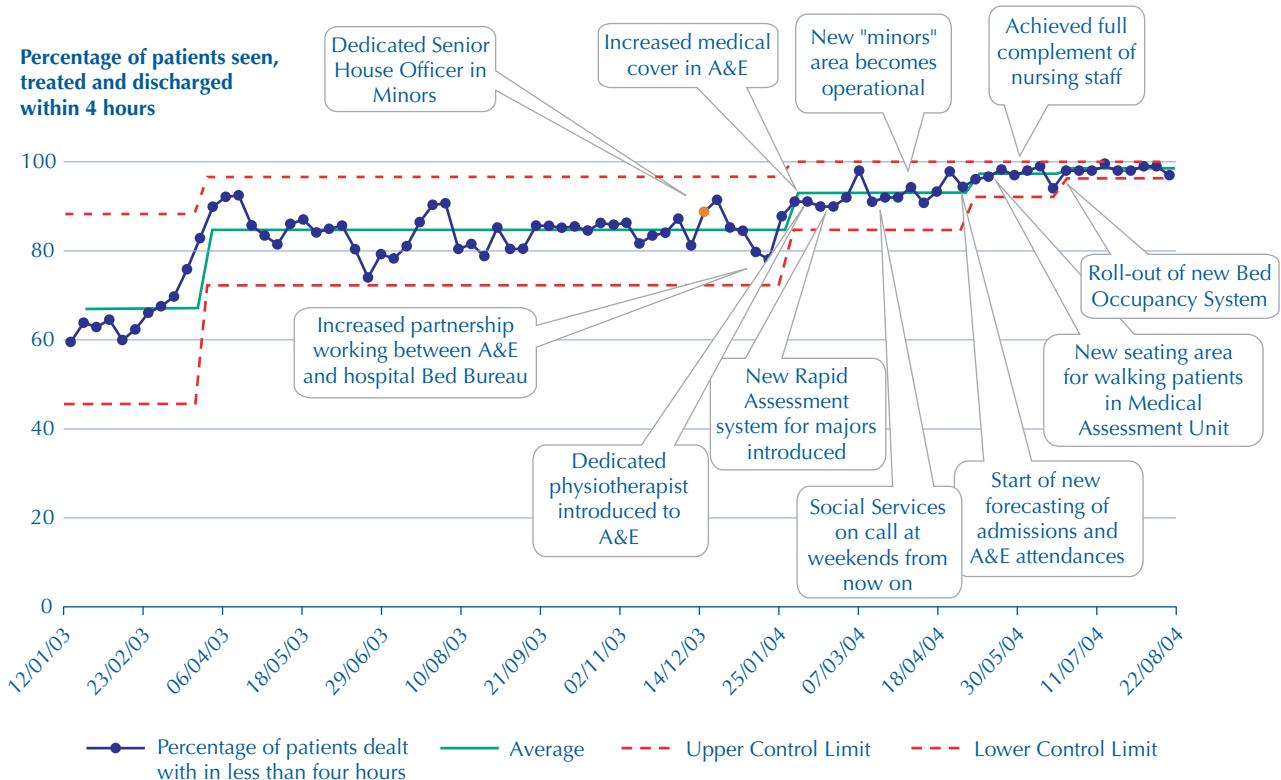
Extra central funds allocated since 2000 on improvements to A&E services	Cost (£m)
Capital incentive payments to trusts (paragraph 1.9)	17.4
"Patient Experience" Fund (paragraph 1.23)	2
Emergency Services Collaborative improvement programme (paragraph 2.3)	30
Extra nurses (paragraph 2.24)	40
Infrastructure improvements to 42 A&E departments (see note) (paragraph 2.38)	35
Piloting of new IT clinical assessment system (see note)	18
<b>Total extra central funds allocated to A&amp;E departments (non-recurring)</b>	<b>142.4</b>
<b>Estimated recurring spend on A&amp;E services in the same period (at £1bn a year)</b>	<b>5,000</b>

### NOTE

Trusts have not yet claimed all the possible incentive payments. By March 2005 the total could reach a maximum of £64m. Infrastructure funding was allocated in three waves between 1999 and 2001 and totals £150 million. The new IT clinical assessment system was not rolled out as it was overtaken by subsequent national IT developments.

*Source: National Audit Office*

**8 Example of a trust's analysis showing increases in both the number of patients dealt with in four hours and the predictability of their journey time**



- provided monthly national reports so trusts could benchmark their performance;
  - provided £80,000 to each Strategic Health Authority to provide support for the Collaborative across their area.
- 2.4 It is difficult to measure the impact of the Collaborative. There were no set changes for trusts to achieve and they started from widely differing baselines. There was also much variation in the extent to which changes made were rigorously evaluated. The programme provided time, resources, data and shared best practice for trusts to focus on understanding and modernising processes, though involvement in it could not be directly correlated to improvements against the four-hour target.

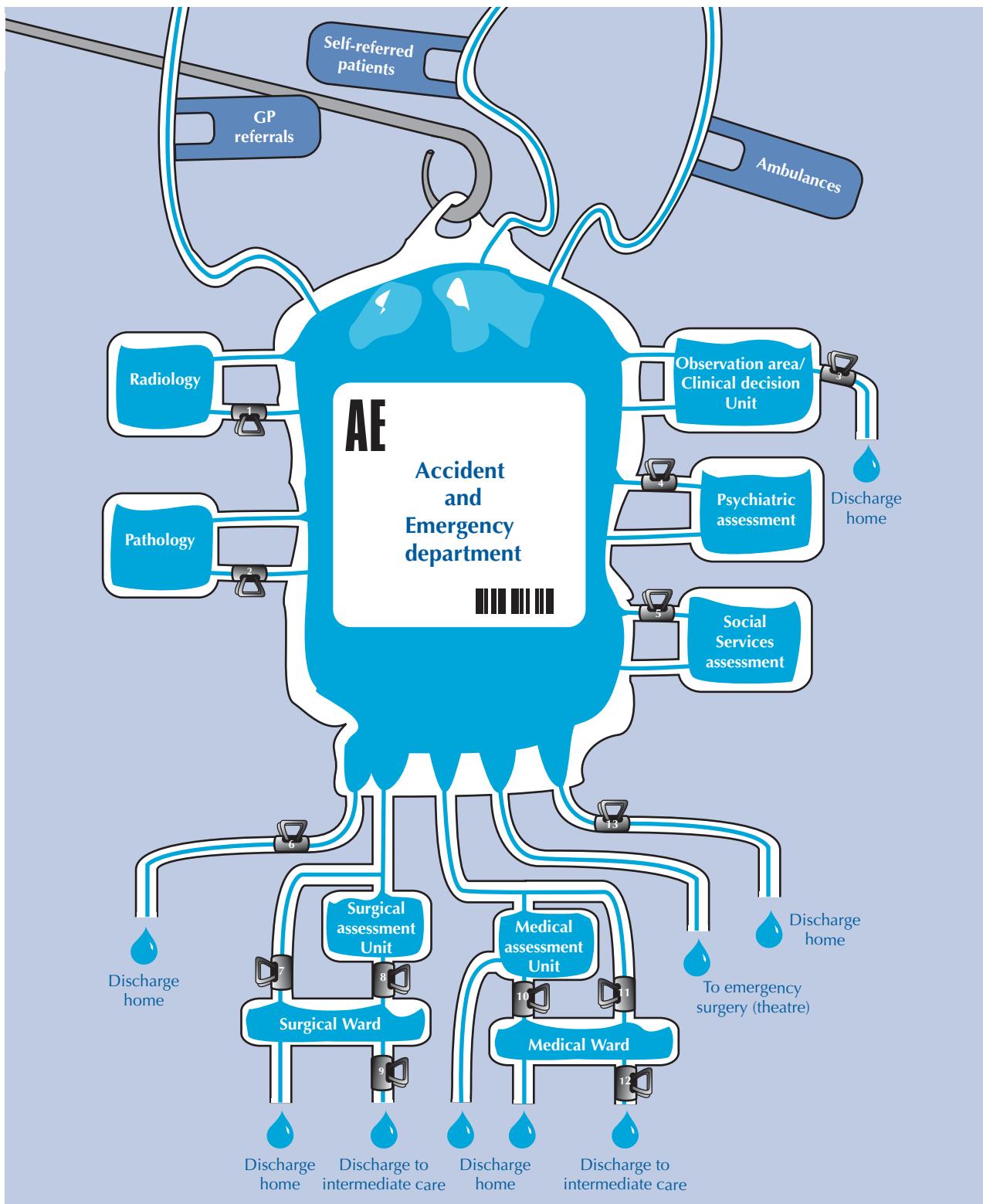
### Several key innovations have helped reduce delays

- 2.5 The pressure to meet the four-hour target and the opportunity of the Collaborative forced trusts to look closely at the bottlenecks in patients' journeys through the system (**Figure 9**). Trusts themselves identified many different innovations; three in particular have been proven to reduce delays:

### See and Treat

- 2.6 Traditionally A&E departments used a system known as triage that involved sorting patients according to priority and focusing on the most serious first. Those with minor injury or illness were continually pushed to the back of the queue. Patients often had to answer the same questions more than once, with successively more senior staff. "See and Treat" empowers the first practitioner who sees a patient with minor injury or illness to assess, treat and discharge that patient safely without the need to refer to other clinicians. It requires autonomous practitioners with certain competencies, rather than specifically doctors or nurses.
- 2.7 Some 30 per cent of the 126 trusts responding to our census cited variants of See and Treat among their three key changes as a result of the *Reforming Emergency Care* agenda. For example, Epsom and St Helier NHS Trust calculated that using it reduced average journey time for minor illness or injury patients from two hours 49 minutes to 90 minutes. The Department reported in February 2004 that 160 of the 202 A&E departments were testing or using the approach for some part of the working day. All five trusts we visited were using See and Treat at peak times (such as Friday and Saturday early evenings) and/ or when senior staff were available.

## 9 Flows of patients and potential bottlenecks around an A&E department

**Key**

- |                                                                                                    |                                                                                                    |
|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 1 backlogs in radiology delay turnaround or interpretation of results                              | 7 delay in surgeons accepting admission or no available bed                                        |
| 2 backlogs in pathology delay turnaround or interpretation of results                              | 8 no available bed in surgical ward                                                                |
| 3 waiting for ambulance or other transport; waiting for medicines; waiting for doctor to discharge | 9 no available bed in intermediate care                                                            |
| 4 delay in response to request for psychiatric assessment                                          | 10 no available bed in medical ward                                                                |
| 5 delay in response from social services for needs assessment                                      | 11 delay in medical staff accepting admission                                                      |
| 6 no available bed in intermediate care                                                            | 12 no available bed in intermediate care                                                           |
|                                                                                                    | 13 waiting for ambulance or other transport; waiting for medicine; waiting for doctor to discharge |

Source: National Audit Office

## Clinical Decision Units/Observation areas

- 2.8 Some patients (for example those who have taken an overdose) need a period of observation before a decision on whether to admit them to a ward, but it is neither patient-centred nor clinically appropriate for this observation to take place in A&E itself, and in many cases these patients are unlikely to need admission. Other patients (e.g. those with chest pains, asthma or epilepsy) may need a series of investigations over a period of hours before being allowed to go home. Some trusts have therefore introduced Clinical Decision Units or Observation Areas to provide space for observation in ward-style conditions. Patients placed in the units are no longer counted as regards the four-hour maximum time.
- 2.9 There is good evidence that Clinical Decision Units/Observation Areas help to reduce delays<sup>13</sup>. St Thomas' Hospital introduced a Clinical Decision Unit in November 2003 and consider that it ensures patients are managed in the most appropriate setting, releases capacity on admission wards for the most acute patients only, and provides swifter diagnostic investigation for all its patients. They pointed to the fact that the unit was clearly distinct from an inpatient ward as 90 per cent of patients spent less than 24 hours there. The Trust consider that the likely saving in bed-occupancy on main hospital wards is of the order of 5,000 bed-days a year, but a full year's data is not yet available.
- 2.10 To guard against the risk that trusts could use a Clinical Decision Unit as a way of reducing delays in A&E while keeping patients in similarly unsuitable conditions elsewhere, the Department set out criteria for the facilities that must be in place for a Unit to qualify. In our survey, 21 trusts specifically cited Clinical Decision Units or Observation Areas as one of their three most important improvements.

## Improved access to diagnostic services

- 2.11 The Department set out plans in 2001<sup>2</sup> to develop NHS diagnostic services, including those of A&E departments. It stated that in the interim trusts should improve diagnostic services out of hours by extending the working day, making use of the private sector, using new technologies and introducing near patient testing.

2.12 The Department's own survey data showed that delays to diagnostic tests still accounted for some 11 per cent<sup>x</sup> of long stays in A&E in 2004, though this is reducing. Many trusts have made efforts to address the problem of access to diagnostic services but there are still gaps:

- 90 trusts (71 per cent) responding to our survey had a dedicated radiology facility for at least one of their A&E departments, of which nearly all were co-located as recommended by the Department<sup>17</sup>. With a national shortage of radiographers<sup>18</sup>, only 72 of these dedicated radiology facilities had a radiographer 24 hours a day. The rest had access either in working hours only or up to around midnight.
- 114 trusts (90 per cent) had arranged some form of access to a consultant radiologist at all times to interpret results and make diagnoses, despite shortages of these specialists too. At least ten trusts had developed telemedicine systems for CT scans<sup>xi</sup> and six trusts had or planned remote access digital x-ray facilities. Eight trusts had expanded the roles of radiographers and other A&E staff to do the first line reporting, with radiologists reviewing their work.
- Thirteen trusts specifically identified their lack of x-ray equipment as a key problem and ten trusts acknowledged that they needed to invest in "near-patient-testing" equipment (**Case Example 2**).

## CASE EXAMPLE 2

### Reducing delays with a one-stop diagnostic area

**Situation:** University Hospital Lewisham NHS Trust's A&E department wished to improve the efficiency with which diagnostic tests were processed for the department, as part of reducing delays to patients.

**Action:** The Trust created a dedicated area of the department where Clinical Technicians now carry out phlebotomy, with facilities for near-patient testing of blood samples, and ECGs. They also coordinate the testing of any A&E samples that need to go to the main laboratory to ensure efficient processing.

**Outcome:** The Trust now aim for patients' blood tests to be carried out in the first hour of their time in A&E and consider that delays to patients needing blood tests have been reduced. They plan to improve the service further when funding is available by employing additional clinical technicians and by refurbishing the diagnostic area using capital funds.

<sup>x</sup> Department of Health representative survey of trusts in August 2004.  
<sup>xi</sup> Computed (Axial) Tomography imaging, also known as "CAT scanning", a diagnostic imaging method.

## The focus is now on bottlenecks in the wider system around A&E

2.13 To reduce the remaining delays for key groups of patients requires trusts to look wider than A&E at the way the whole hospital, and to a lesser extent the whole health and social care system, operates.

### Waiting for a bed

2.14 Waiting for a bed on a ward accounted for 24 per cent of all four-hour-and-over stays in A&E in 2003-04 and over 42 per cent of those for patients needing admission<sup>xii</sup>. Our reports on *Inpatient admission and bed management* (2000)<sup>19</sup> and *Ensuring the effective discharge of older patients* (2003)<sup>20</sup> highlighted issues for trusts and the wider health economy to take into account to optimise bed availability and avoid bottlenecks developing. We found many of these were in place at trusts we visited, although greater use could be made of existing "discharge lounges" where patients ready to go home can wait when they no longer need to be in a bed.

2.15 The Department and Modernisation Agency have led work in 2004 that shows that:

- demand for beds depends not only on the absolute quantity of beds but primarily on how well numbers and timing of admissions and discharges are matched and how long patients spend in hospital; and
- emergency admission numbers and timings show considerably less variation than elective (planned) admissions.

Trusts have historically planned elective flows not against the known emergency demand, but around traditional staffing schedules and timing of consultant ward rounds. Discharges tended to peak in the afternoon rather than the morning creating a short-term mismatch between beds required for new arrivals and beds not yet vacated by those being discharged that day. The Department has made available to trusts a diagnostic model<sup>21</sup> which allows them to identify any mismatch and address it (usually by moving the peak in discharges to the morning). **Figure 10 overleaf** shows an example of a diagnostic done in May 2004 before the programme was launched. The Department also issued a checklist in June 2004 setting out the diagnostic and management action required to improve bed management.

2.16 Action on waits for beds is further being developed through the Modernisation Agency's "Making Best Use of Beds" programme and the Department's "Discharge Toolkit" launched in July and August 2004 respectively. These develop and support the checklist launched in June. The Department expects all trusts to implement the principles set out in the checklist, and to have a dedicated bed management executive lead, and are providing support for them where required including through the Improvement Partnership for Hospitals' *Making best use of beds* programme. The Department consider that this has brought a level of focus to bed management not seen previously in trusts, reflecting the fact that unless bed management is efficient trusts will not be able to reach the target of 98 per cent of patients dealt with in four hours in A&E

2.17 Part of the problem of bed shortages still lies outside acute trusts, in intermediate care or in arrangements to help patients return to their own homes. While reductions have been achieved in blocked beds at acute trusts through legislation<sup>xiii</sup> to levy charges on local authorities, community hospitals were not included in the scheme and are still suffering bed blocking, which causes bottlenecks for the health economy. **Case examples 3, and 4 on page 23** show the approach of two trusts to improve the flow of patients.

## CASE EXAMPLE 3

### A joined-up approach to paving the way home from hospital

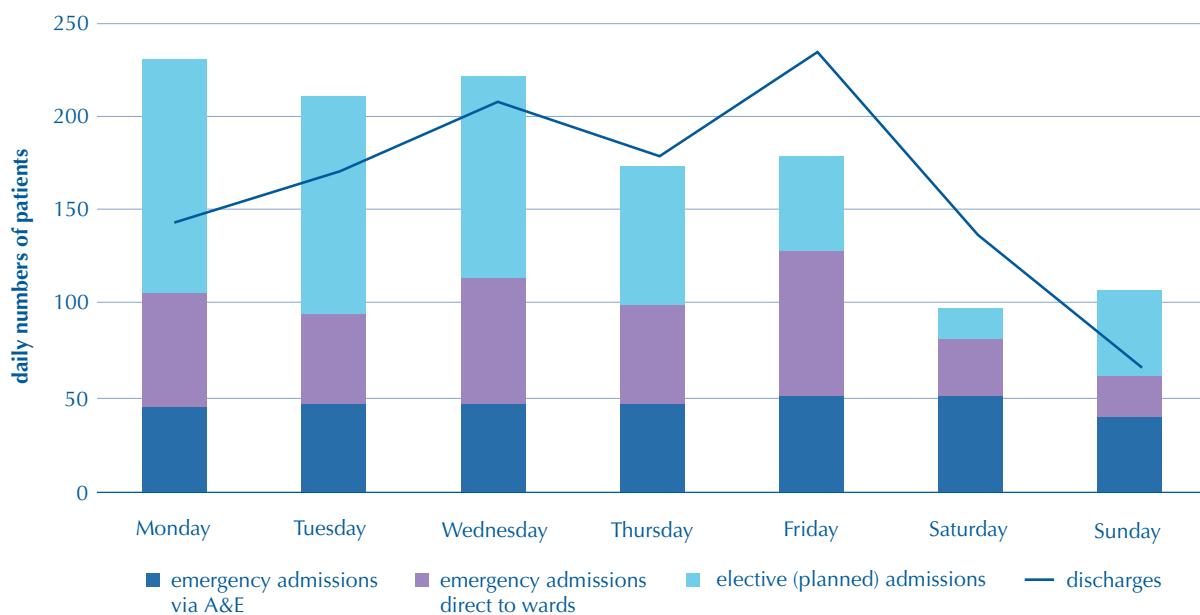
**Situation:** One of the most common causes of delays to patients leaving hospital is awaiting the completion or assessments of their needs by a variety of health and social care professionals and the assembling of a package of care.

**Action:** Preston Integrated Intermediate Care Services is an initiative by Preston Primary Care Trust and Lancashire County Council Social Services involving multi-disciplinary teams of social workers, physio - and occupational therapists, who devise time-limited care plans (one to twelve weeks), to enable patients leaving hospital to return to independent living at home. It has three residential rehabilitation units with a total of 33 beds. Referrals to the Service are generally accepted from any health or social care professional. The teams are currently piloting a 'fast track' referral system, which will improve access from both hospital and community-based services to the residential rehabilitation service.

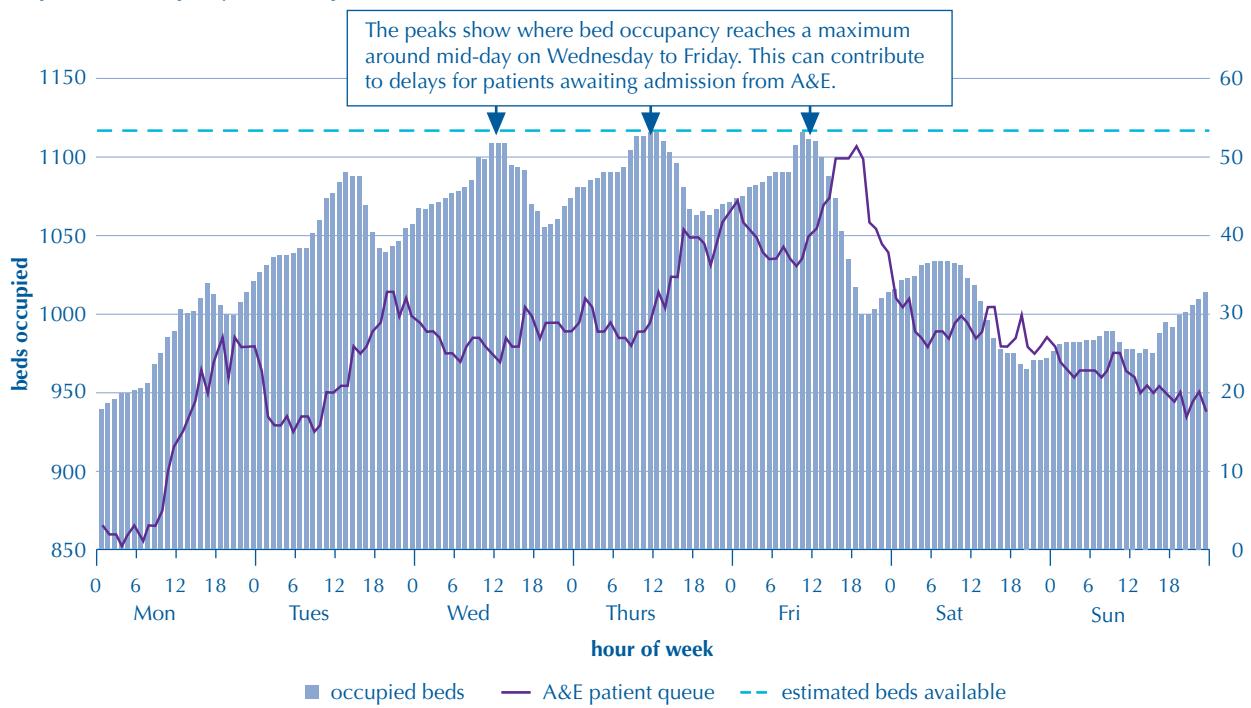
<sup>xii</sup> Department of Health representative survey of trusts in August 2004.  
<sup>xiii</sup> Community Care (Delayed discharges etc) Act 2003.

**10 Peaks in bed use caused by mismatches between arrivals and departures from hospital and the potential impact on patients' total time in A&E**

**Daily mismatch between arrivals and discharges**



**Implied bed occupancy and A&E queue**



Source: Department of Health - based on real trust data (May 2004)

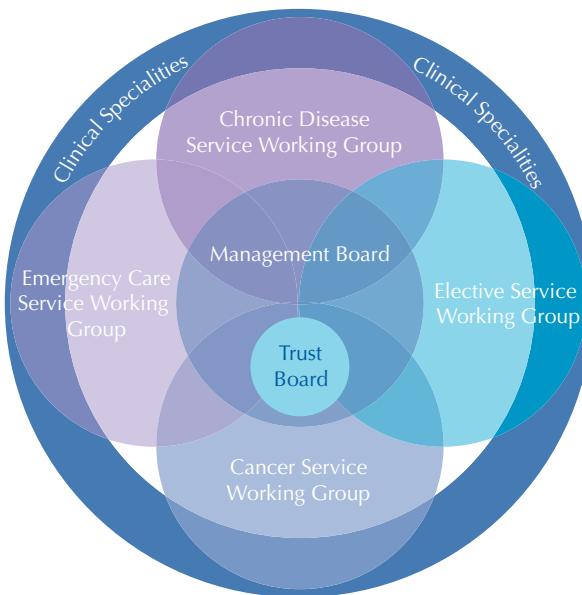
### Obtaining a specialist opinion

- 2.18 Twenty-four per cent of all stays over four hours and 27 per cent of those for admitted patients were caused by delays in obtaining a specialist opinion<sup>xiv</sup>. A&E medical staff are usually able to decide whether a patient needs admitting and to which ward, but traditionally they have

had to seek approval from a physician on the relevant admitting team, sometimes more junior than themselves. With some trusts still scheduling specialists to cover elective lists in the same period when they are nominally available to respond to A&E, delays can be caused by conflicts with ward rounds.

## CASE EXAMPLE 4

Revised management structure at Airedale NHS Trust improved both joint working between clinical specialties and focus on managing the flow of patients



Source: Airedale NHS Trust

### Situation

A directorate-based management structure was in place with clinical directors for each specialty. This tended to encourage a "silo" type approach in the trust.

### Action (see left)

The structure was changed to a series of "service working groups" with multi-disciplinary and cross-departmental team members, based around groups of patients including one for emergency care. Each reports to the Board every month.

### Outcome

Despite some initial concern from clinical directors, the change helped to reduce the "silo" mentality and improve focus on managing flows of patients.

2.19 There is evidence that widening admission rights to include emergency physicians can reduce delays<sup>13</sup> and traditional ways of working are beginning to change. For example:

- medical teams at Homerton hospital had agreed to accept referrals quickly from any member of the A&E team if there was an obvious need for medical admission. All referrals are coordinated by the on-duty middle-grade A&E doctor, to ensure that they are appropriate and safe for the patient;
- James Paget Healthcare NHS Trust had arrangements for nurses to admit patients diagnosed with fractured neck or femur, and considered that this helped streamline the patient pathway for this group; and
- at St Thomas' Hospital, A&E consultants, registrars and, in some cases, junior doctors were able to admit patients, to medical wards only.

2.20 In June 2004 the Department issued a checklist of guidance for trusts on improving access to specialist opinion, encouraging them to focus on; releasing specialist staff from competing commitments to respond to the A&E department; restructuring ward rounds in the early evenings; extending the emergency team's admitting rights; and making local arrangements to improve access to assessment for lower volume specialties (**case example 5**).

## CASE EXAMPLE 5

Softening the boundaries between A&E department and ward staff to improve access to specialist opinion

**Situation:** There were delays in obtaining senior opinions for acutely sick children in the A&E department at Addenbrooke's NHS Trust, because of the paediatric team's ward commitments. Paediatric cases accounted for ten per cent of all patients waiting for longer than four hours for admission or discharge.

**Action:** During the Emergency Services Collaborative programme the Trust ran a pilot scheme where a paediatric clinical fellow was relocated to A&E to support the senior house officers in their decision making.

**Outcome:** Since the beginning of 2004 the hospital has based one of its paediatric specialist registrars in the paediatric area of the A&E department between 11 am and 6 pm. Additionally paediatric nursing staff are now working alongside their colleagues in A&E. This has facilitated more joint working between the two disciplines, patients are seen by the specialist team earlier in their journey and the number of paediatric patients breaching the four-hour target has reduced from 51 in November 2003 to seven in July 2004.

## Waiting for mental health assessment

2.21 Where A&E staff identify a patient with psychiatric needs, they request assessment by a suitably qualified psychiatric liaison team member, provided either by the local primary care mental health service or by the mental health trust, sometimes at the same hospital site. Trusts without co-located mental health services often face delays caused by lack of liaison psychiatry services and confusion over responsibilities<sup>22</sup>.

2.22 Trusts we visited had agreed a range of local standards for a response time by psychiatric staff from 30 minutes to one hour, but there was evidence that these informal standards were not always met. Other factors that can delay assessment or treatment include patients being deemed unfit for assessment through injury or intoxication, and waiting for admission to a bed on a psychiatric ward. **Case example 6** shows one mental health trust's approach to improving emergency care for patients with mental health needs.

## CASE EXAMPLE 6

### "Swift assessment" for patients with mental health needs arriving at A&E departments in Manchester

**Situation:** Patients with mental health needs were presenting at Manchester A&E departments in crisis, at which point admission to an inpatient ward was often the only option. There was pressure on psychiatric inpatient beds and an overspend on paying for out-of-area beds.

**Action:** SAFIRE (Swift Assessment for the Intensive Resolution of Emergencies) is an initiative set up by Manchester Mental Health and Social Care NHS Trust. It is a city-wide resource for Manchester Mental Health services, with six places for patients, open six days a week. It is primarily staffed by nurses, plus a staff grade doctor and support from a consultant and a clinical services manager. The SAFIRE unit is similar to a medical assessment unit and its patients are still considered to be in the A&E department, as they have been neither admitted nor sent home. Patients may spend a maximum of 48 hours in the unit, and the average length of stay is one and a half days.

**Outcome:** Fifty-eight per cent of patients treated at SAFIRE have been sent home without requiring admission to an inpatient bed. The SAFIRE unit was recently recognised at the North West NHS Innovation Awards as an innovative service.

2.23 The Royal College of Psychiatrists and the British Association for Emergency Medicine issued new guidance in June 2004 recommending that attendance by a psychiatric professional should take place no longer than 30 minutes from time of referral in urban areas and 90 minutes in rural areas. The Department has published a mental health good practice checklist for NHS organisations, and mental health trusts are also included in the Department's improvement incentive scheme.

## There remain staffing constraints in A&E

2.24 A&E departments traditionally depended upon junior doctors to provide much of the direct care for patients, but for See and Treat to operate effectively and to better match staffing to peaks in demand, the way A&E departments are staffed has had to change. More input from senior medical and nursing staff is required and in 2001, recognising that A&E departments were stretched, the Department allocated £40 million to fund an extra 600 nurses by March 2003, and undertook to provide an additional 183 emergency consultants by 2004.

2.25 By 30 November 2002, an additional 679 nurses were in post, according to centrally collated data, but the additional consultants provided were trainee doctors already in the system and so do not represent an uplift in overall numbers. Additionally, since August 2004, trusts must meet restrictions on junior doctors' hours, under the European Working Time Directive (the Directive), and alter rotas because of changes in training requirements. New shift systems are now in operation for many staff, but 17 per cent of trusts responding to our survey raised concerns about the impact of the Directive on the working hours of other clinicians within A&E and on their ability to achieve a satisfactory and flexible level of medical cover 24 hours a day, seven days a week.

### Trusts have difficulty recruiting suitably qualified clinical staff

2.26 **Figure 11** shows the level of clinical shortages reported by 126 trusts responding to our survey.

#### 11 Shortages in A&E clinical staff are common

Staff group	Number of trusts reporting shortages compared with funded posts
Permanent consultants	52 (43 per cent) out of 121 responses
Other medical staff	66 (55 per cent) out of 120 responses
Nurses	99 (84 per cent) out of 118 responses
All types of clinical staff	11 (9 per cent)

*Source: National Audit Office survey of acute trusts*

2.27 The Department considers that major A&E departments should not be staffed by a single-handed consultant - most no longer are. The British Association for Emergency Medicine has independently recommended that all departments have at least three consultants and that those with more than 70,000 new patients a year have daily 12-hour and on-call cover, suggesting a rota

of eight full-time consultants<sup>23</sup>. In our survey just nine trusts had the funding for this number, with only two having eight or more consultants actually in post. We calculate that, on average, trusts are funded for 4.3 consultants and have 3.7 actually in post, and as yet there are few emergency and acute physicians to fill newly created posts.

2.28 Though nursing numbers have increased - in our survey 52 per cent of trusts reported that one of the three most important changes in the delivery of emergency care was nurses working as autonomous emergency nurse practitioners - getting the right skill mix is difficult. Only two-thirds of trusts were able to operate See and Treat seven days a week<sup>24</sup> and we found 13 per cent of trusts were concerned about the shortage of experienced nurses required to run this service. A similar number were concerned about their ability to retain these skilled nurses, or to compete with GP practices for doctors to provide alternative cover for minor illness or injuries.

2.29 Some trusts were of the opinion that the Department, through Strategic Health Authorities' Workforce Development Confederations, could do more to provide sufficient staff with the right skills for A&E departments. There were concerns about shortfalls in training places and how to ensure the workforce was equipped to deliver modern emergency care, particularly with regard to nurse practitioners. We found at least 32 different providers of emergency nurse practitioner training, delivering a wide variety of courses, and trusts felt guidance from the Department was required.

### Workforce requirements are complex but models are being developed

2.30 In 2004, the British Association for Emergency Medicine and the Faculty of Accident and Emergency Medicine independently proposed the concept of "workload units" as a basis for staffing different sized A&E departments<sup>23</sup>. Using annual attendance data we assessed against these models 116 trusts that provided us with information on their actual complement of consultants, other medical staff and emergency nurse practitioners. Our calculations suggest that under the model:

- 30 departments (25 per cent) of the 117 that provided complete data had a workforce that was appropriate for their annual attendance level, to within 1,000 patients; and
- the remaining 87 departments were understaffed and 81 (70 per cent of the total) were treating at least 5,000 more patients a year than the staffing model suggested they should be expected to see. Nine of these would have been adequately staffed, however, if they had been able to fill all their funded posts.

2.31 There is insufficient evidence to determine whether there is a direct relationship between the time patients spend in A&E reducing delays and number of staff. The Department has formed a senior-level Access Care Group Workforce Team and announced that it is to commission Trent Workforce Development Corporation to assess the workforce implications of See and Treat and identify an appropriate workforce baseline. In the meantime the Emergency Care Access team have developed a computer-based model to enable trusts to input typical demand at their trust (broken down by type of patient and by time of day), along with assumptions about the average time spent with each type of patient by each "decision making" staff group, and hence test different scenarios to optimise their staff allocations. It is currently being piloted in the NHS and the Department is awaiting feedback from those trusts that have used it.

### There are gaps in staff with specialist skills

2.32 Children, those with mental health needs and older people have particular needs in A&E and we asked trusts whether they had specialist cover or provided specific staff training. Over 90 per cent of medical staff and nurses had some form of paediatric training, but specialist cover was often lacking. The Royal College of Paediatrics and Child Health has issued guidelines<sup>25</sup> for medical staffing in A&E departments. According to these, we estimate around 60 of the trusts replying to our survey should have at least one paediatric A&E consultant because of their level of annual attendances. Only ten specifically said they had. A number of departments have no liaison with senior paediatric inpatient staff and others have no cover at night.

2.33 The Department recommends at least one registered children's nurse (RSCN) is available 24 hours a day to advise each A&E department. Some trusts have exceeded this standard by appointing trained paediatric nurses to work directly in A&E. Thirty-nine trusts told us they had trained paediatric nurses on some shifts, but five of these were concerned about their ability to recruit and retain. Five trusts have embarked on specific paediatric emergency nurse practitioner programmes.

2.34 The number of staff in departments with mental health training and experience is growing. Of the 68 trusts which outlined their actions with respect to patients with mental health needs, just over 30 per cent had employed Community Psychiatric Nurses or Mental Health Liaison Nurses in the department. A further six were developing roles or teams to provide this expertise, and most indicated that they had access to a Psychiatric Liaison Team. In addition we found that 75 per cent of doctors and nurses were provided with training in treating patients with mental health needs, though most support staff were not.

2.35 The special, and sometimes complex, needs of vulnerable older people were less often met. There was access to training in caring for older patients for doctors and nurses in just over 50 per cent of departments and for support workers in a third. A few departments have been able to attract the assistance of volunteers to support older patients in the department.

### There is considerable variation in the support skills available to departments

2.36 Over 90 per cent of trusts had administration and clerical support from one person at least three days a week in A&E. Healthcare assistants are commonly employed and some trusts were piloting new support worker roles, e.g. A&E department assistants who cover clerical, portering and healthcare assistant duties. However, fewer than half the trusts could provide details of any dedicated domestic staff and few had access to their own porters.

### Basic infrastructure can be an obstacle to modernising care

2.37 Over half of the A&E departments in English hospitals were built in the 1980s or before and they were originally designed to accommodate far fewer patients: University Hospital of North Staffordshire and Milton Keynes General Hospital see three and four times more patients respectively than originally planned. The Department updated guidance on the appropriate design and services of A&E departments to reflect modern approaches in 2003 (Appendix 4). It does not enable trusts to calculate the optimum provision of diagnostic and treatment facilities or layout for efficient flow of patients as it is targeted specifically at trusts with attendances of 50,000. Around 70 per cent of hospitals now receive more patients than this annually.

### Despite some central capital investment, few departments are well designed to provide modern emergency care

2.38 Between 1999 and March 2002, the Department allocated £150 million of central funds in three waves to improve 165 A&E departments. The enhancements covered decoration, children's facilities, dedicated treatment facilities and diagnostic equipment. Additionally, 18 PFI and three publicly funded new-build A&E schemes are complete, with rebuilding work ongoing in 2004 on at least a further 14.

2.39 Most departments were designed to treat patients in priority order and so some have had difficulty providing separate treatment areas for See and Treat whilst ensuring modern standards of privacy and dignity for patients. We found from our survey and data from hospital estates departments that:

- forty per cent of those responsible for emergency care in their trust were not satisfied with the quality of the environment in their hospitals' A&E departments;
- the majority of those not satisfied with the environment of their A&E were in departments that came into operation before the 1990s and received less than £1 million of A&E Modernisation Programme money; and
- although all the hospitals built in the 1980s received A&E Modernisation Money, they were rated as being a lot more unsuitable than was to be expected, suggesting that A&Es built in that period may be less flexible in design. Conversely those departments opened since 2000 were more highly rated than predicted statistically<sup>xv</sup>.

2.40 We also found evidence that:

- as numbers of patients, case mix and staffing fluctuate, trusts with inflexible "minors" and "majors" areas may have valuable space which is not fully utilised<sup>26</sup>. For example, at Hereford Hospitals NHS Trust we observed that staff had difficulty using triage, resuscitation and observation areas efficiently because of lack of fit between layout, activities and staff numbers;
- not all departments have a suitable area for conducting mental health assessments, often using rooms designed for bereaved families or staff rest areas; and
- departments have little space to accommodate a Clinical Decision Unit or Observation Area (ten per cent of trusts in our survey specifically mentioning this deficiency).

While many trusts are examining ways of improving space usage in A&E to fit with modernised working practices, they are often constrained by existing buildings. **Case example 7** examines some design aspects of a small recently-opened private sector provider which also has similarities with the NHS Walk-in Centre approach.

## CASE EXAMPLE 7

### A private sector approach to building design

**Situation:** Casualty Plus is a small private sector walk-in "casualty" service which opened in Brentford, West London in 2003. It offers diagnosis and treatment for non life-threatening conditions only, for which patients pay, according to a tariff of charges. The company told us it treats around 2,000 patients a month.

**Action:** In designing the purpose-built premises, Casualty Plus made use of publicly available NHS Estates guidance on room sizes, but aimed to reduce the need for patients to move from area to area by bringing services and equipment to them. All rooms are seen as "the patient's room" and staff keep no personal equipment in them. Clinical consumables have been reduced to "just-in-time" supply and use only a very small storage room. All but the most expensive and heavy equipment is moveable and can be taken from room to room as required.

**Outcome:** There is little need for patients to move around the building, which the company consider reduces the risks of patients getting lost, crime and the spread of infection.

*Source: Casualty Plus Limited*

### Recent research on design has provided some good practice

2.41 To understand the influence of layout on the care of patients, NHS Estates commissioned computer modelling in 2004 to benchmark design characteristics in eight existing A&E departments. Key recommendations covered better way-finding, physical and visual contact between staff and patients and flexibility of facilities (see Appendix 4). Our own examination of the impact of building design on security in 2002<sup>27</sup> showed that general lack of space, blind corners and stair wells can exacerbate risks of violence and aggression.

**Case example 8** details the latest approach at one large teaching hospital.

## CASE EXAMPLE 8

### Redesign of an A&E department to tackle violence and crime

**Situation:** Birmingham Heartlands Hospital A&E department was refurbished in 1994 but, by 2003, staff were dealing with double the planned number of patients. The department saw 31 per cent of all crimes on the hospital site of which three fifths took place in the 'majors' treatment area. Assault and aggressive behaviour was more evident here than any other part of the trust with a high frequency of serious crimes. Despite an integrated and proactive approach to the issue, reported incidents in the department were still rising.

**Action:** In 2003 the department participated in the Home Office-sponsored Safer Hospitals Initiative to reduce the risk of crime and fear of crime. Space management experts, Intelligent Space Partnership, undertook desktop modelling and surveyed the department one Monday in May between 8am and 8pm to evaluate the use of entrances, circulation routes and space usage. They identified a number of potential causes of frustration and opportunities for criminal activity: people were commonly entering by the paramedic doors, thus avoiding reception; there was separation between the location of staff and the patients/ visitors; and access to the 'majors' area was not controlled, compromising privacy and dignity as well as safety of the staff, patients and visitors.

To increase interaction between patients and visitors and hospital staff the hospital has used the Ward Housekeeping Service to drop into the waiting area every few hours to talk to and bring drinks to patients.

Under the Safer Hospitals initiative the department underwent a rebuilding project. External way-finding was changed to separate ambulance arrivals from ambulatory attendees and floor signage was introduced. Reception was moved to the centre of the lobby and public phones and vending machines relocated to the waiting area. The clinical perimeter is controlled through door locks and an additional three CCTV cameras have been installed in the most heavily used corridors.

**Outcome:** The project has helped the hospital further improve its targeted approach to crime prevention and reduction of the fear of crime, as well as make the environment more welcoming to patients, visitors and staff.

# Part 3

**Emergency care services are beginning to be designed more around patients' needs but there is more to do**

- 3.1 The Department recognised in *Reforming Emergency Care*<sup>2</sup> that modernisation and integration not just of A&E departments but of the whole system was needed. This part of the report looks at the extent to which patients currently experience services designed around their needs and the progress in modernisation through creation of new services and redesign of existing arrangements. It shows that new types of provider have been well received; services provided vary and attendances are sometimes low. Full integration of emergency care services has not yet been achieved. New arrangements for out-of-hours care present both challenges and opportunities for integration.

## New types of provider have been well-received and services vary

- 3.2 The majority of patients requiring hospital-based emergency care access treatment through A&E departments, but historically patients have also been able to use minor injury services located in community hospitals and rural health centres. Following reviews of A&E provision the number of Minor Injury Units has grown and there are now around 260 in England<sup>28</sup> offering various services at various opening times. They may be headed by a GP or nurse and they may have access to x-ray and other diagnostic services.
- 3.3 The NHS Direct telephone service, which became a national service in 2000, has been well used and is valued by many groups, particularly parents of young children, though there is evidence of lower levels of use by some groups such as older people and those from lower socio-economic groups<sup>29</sup>. Reduction of attendances at A&E was not stated as an explicit management objective for NHS Direct and there is no clear evidence of the impact of the service on demand for A&E. In some areas NHS Direct has worked closely with A&E departments, for example by handling A&E advice calls, but in general the service would benefit from greater integration and joint working, such as regular follow-up of patients referred by NHS Direct to A&E and protocols for referral to a greater range of local services.

- 3.4 Since July 1999 the Department has funded the establishment of some 43 NHS Walk-in Centres across England (Appendix 5) at a capital cost of £45.4 million. They have been designed to improve access to emergency care. Initially the Department requested some primary care trusts to bid for a Centre, but the impetus is now beginning to come from local health economies themselves. Some of the most recent Centres have been deliberately located to relieve pressure on A&E departments. Co-location with a larger site has also the advantages of prompt referral to specialists if needed, shared support services, and safety for staff, as well as a well-known location for patients (**Case example 9**). In August 2004 the Department announced<sup>30</sup> that the number of Centres is to increase to 81, bringing the total central funding allocated to £71 million.



## CASE EXAMPLE 9

### Use of a Walk-in Centre to complement A&E

**Situation:** Newcastle upon Tyne Hospitals NHS Trust needed to improve the way patients with minor illness and injury were managed in its main A&E department.

**Action:** An NHS Walk-in Centre was opened in March 2000, run by the acute trust in consultation with local primary care, and co-located with the A&E department.

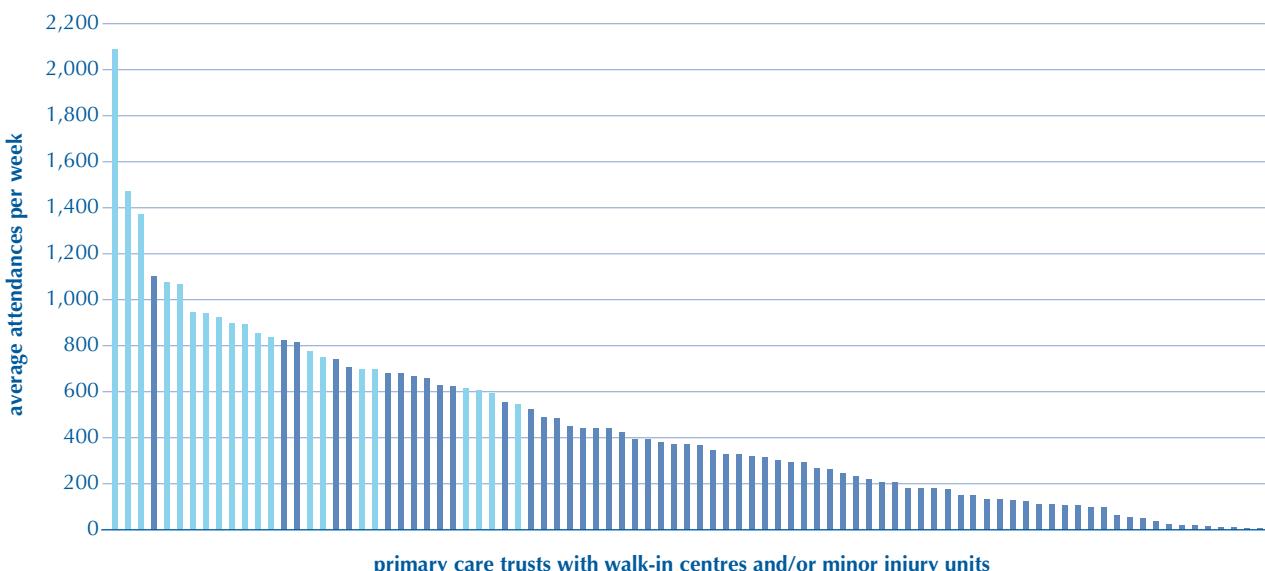
**Outcome:** Staff advise suitable patients before they enter A&E that there is an alternative co-located service. The Walk-in Centre also has two entrances to allow patients to access it directly or via A&E. Staff rotate between the Walk-in Centre and A&E. Ninety-six per cent of patients at the combined site were dealt with in less than four hours in April to June 2004. Performance at the main A&E improved from 88 per cent in July to September 2002 to 92.6 per cent in April to June 2004.

- 3.5 The Centres are generally nurse-led and treat minor injuries and illnesses; several include other services, for example psychiatric liaison, asthma services and sexual health clinics. Formal evaluation commissioned by the Department has shown they provide as safe and good quality a service as GPs and NHS Direct for minor conditions<sup>31</sup>, with positive reactions from patients.
- 3.6 Attendance at Walk-in Centres nationally has risen steadily (Appendix 2). Most Centres are open seven days a week but only two are open 24 hours a day. Five of the 31 English ambulance services told us they had specific arrangements to take patients to local Centres if appropriate. However, we found ambulance staff were sometimes reluctant to use this option because of concerns about the Centres' opening hours and services and that patients generally expected to be taken to A&E (see paragraph 3.13).
- 3.7 The Centres' running costs are provided by primary care trusts. Early evaluations of NHS Walk-in Centres indicated they were meeting previously unmet demand as well as complementing A&E and GP services and hence brought an extra cost<sup>31</sup>. NHS Walk-in Centre costs are estimated<sup>31</sup> at £20-30 per consultation, higher in general than those of GPs (£15) though lower than A&E departments (£55-65). But attendance at services run by each primary care trust is variable (**Figure 12**), ranging from single figures to more than 2,000 a week, and indicating a potentially wide variation in unit costs.
- 3.8 NHS Walk-in Centres and Minor Injury Units (mainly city-centre or hospital co-located) if managed in an integrated way with hospital and primary care services, can create a hub of emergency care activity on one site and save cost relative to A&E. Others may be less cost-effective, but local commissioners may consider that those providing services in rural areas justify higher unit costs. There is a need for local health economies, when establishing these Centres, to look at costs and benefits for the whole health economy. Assuming the initiative is effective in diverting patients, they also need to consider the effect on the acute trust of lost income through the loss of minor injury/illness cases that cost less to treat than major cases, but are funded to a similar level. The risk of competing for staff with A&E departments and ambulance trusts should also be taken into account (in our survey 13 per cent of acute and ambulance trusts highlighted their concerns on this issue).

### Patients may not be accessing the most appropriate service

- 3.9 A large number of studies have found that some patients attend A&E for primary care needs. The proportion of patients in this group varies widely between different trusts<sup>13</sup>. Use of A&E for primary care needs is associated with urban departments where there may be a larger than average proportion of patients not registered with a GP. Though the great majority of people in England are registered with a GP (97 per cent of patients in our

#### **12 Attendances at some primary care trust services are low**



#### NOTE

Lighter coloured bars indicate that the total includes an NHS Walk-in Centre, and/or Minor Injury Unit(s); darker bars indicate Minor Injury Unit(s) only.

Source: National Audit Office analysis of Department of Health published data

survey said they were registered) and could in theory access primary care, they may nevertheless choose to go to A&E for a range of reasons, including relative travelling distance, availability of GP appointments, perceived seriousness of injury or illness and belief that A&E staff will provide better care. We asked members of the public in our omnibus survey about the relative importance to them of a range of factors when choosing which emergency service to contact initially (**Figure 13**).

3.10 We also found from ambulance services that a significant percentage of callers did not in fact need an emergency ambulance (**Figure 14**). Only half of ambulance trust chief executives we surveyed agreed or

strongly agreed that working arrangements encouraged them to refer patients to the most appropriate care provider and only 17 of the 31 said they were encouraged to take patients elsewhere than A&E.

3.11 Re-routing callers saves time and money and can help save more lives by freeing staff time for emergency calls. Ambulance services have been under pressure to meet their key targets for emergency as well as non-emergency calls (**Figure 15**) while demand overall has been rising steeply (Appendix 2). We found London and Dorset Ambulance Services were the only trusts that reported a formal policy for *not* sending a vehicle where there was clearly no need for one. The London

### **13 Factors affecting people's actual choice of emergency care provider within the previous year**

Factor	Mean rating out of 5
You thought you would get the best quality of care	4.49
You thought it was the most appropriate type of medical help/advice	4.45
Speed of being dealt with	4.44
You thought the people providing the service were the best qualified to do so	4.41
Service had suitable opening times	4.40
Location of the service	4.29
You were familiar with the service/people	4.19
Prior experiences with the service	4.10
Previous advice from a healthcare professional	4.01
Prior experiences with other services	3.81
Quality of non-medical facilities	3.57
Publicity/advertising campaigns	2.66
The media	2.44

#### **NOTE**

Respondents had all used emergency care services within the last year and answered on the basis of the decision they made the last time they used these services. Sixty-eight per cent first sought help by telephone (72 per cent called a GP, eight per cent an ambulance and seven per cent A&E) and 27 per cent attended an emergency care provider in person (52 per cent to see a GP and just over a third to A&E).

*Source: Omnibus survey of 1,623 adults aged 15+ by Ipsos for National Audit Office*

### **14 A significant proportion of 999 Ambulance calls are not emergencies**

	Minimum trust percentage	Average trust percentage	Maximum trust percentage	Most common response
Hoax calls (31 trust responses)	0.0	2.3	10.0	1.0 (9 trusts)
No ambulance required (27 trust responses)	0.0	22.7	60.0	30.0 (4 trusts)
Transport required but not an emergency (26 trust responses)	0.0	30.5	80.0	30.0 (4 trusts) AND 40.0 (4 trusts)

*Source: National Audit Office survey of 31 English ambulance services*

## 15 Ambulance Services have struggled to meet key targets in the face of rising demand

	Target	Number of trusts meeting target in 2003-04 (out of 31)
Category A (immediately life-threatening) calls	Ambulance response within 8 minutes in at least 75 per cent of cases	22
Category B/C (other emergency) calls	Ambulance response within 14 minutes (urban services) or 19 minutes (rural services) in at least 95 per cent of cases	11

*Source: Department of Health data*

Ambulance Service policy followed strict criteria and had been used on 317 occasions in its first six months to June 2004. Each time, advice was given to the caller about suitable alternative care, for example self-care or visiting a GP. The Department since August 2004 is encouraging all ambulance services to work with primary care trusts and others to develop different types of more appropriate response to genuine but non-urgent (Category C) calls.

## There are good examples of redesigning services around patients

### (a) Re-routing patients to the right service

3.12 We found examples of services at local level routing patients away from one provider to a more appropriate one, including:

- diverting patients from A&E to primary care, for example an out-of-hours service near Chelsea and Westminster Hospital A&E department, to which patients can be directly referred;
- GPs are increasingly referring patients direct to Medical Assessment Units for a decision on admission, instead of going first through A&E;
- Lancashire Ambulance Service NHS Trust ran a pilot in the Fylde area where paramedics could contact a GP, by mobile telephone, instead of automatically taking them to A&E. Data, for the first three months to January 2004, showed around 40 per cent of these patients were safely dealt with after GP advice and only 12 per cent of patients required hospital treatment. The Service is looking to extend this approach to vulnerable groups, especially those with mental ill-health; and
- fifteen ambulance services had arrangements to take patients to local Minor Injury Units and 13 to transport patients directly to an acute assessment units (such as a specialist cardiac units) instead of A&E, when the diagnosis was clear.



3.13 Half of ambulance trusts highlighted alternative responses rather than transporting the patient to A&E, among the three most important examples of modernising their working practices. Though they reported a positive response from patients to these initiatives, there is still a widely-held public perception that the main function of ambulance services is to transport patients to A&E (**Figure 16**) and raising awareness about what to expect may also help.

### (b) Redesigning first contact services around patients

3.14 In line with changes across the NHS, health professionals' roles in emergency care are becoming more flexible. We found that strategic health authorities had promoted the development of new community paramedic roles, first contact practitioners and intermediate care teams to deal with urgent patient needs. Half of ambulance services agreed or strongly agreed that they were now being

## 16 The public still expect to be taken to A&E if they call an ambulance

Scenario	Percentage of people who found scenario acceptable
The ambulance comes and takes you to A&E no matter what	58
The ambulance personnel arrive and treat you themselves and do not take you to hospital unless required	40
The 999 telephone operator connects you to another service (such as a GP or NHS Direct) if your condition is non-life threatening	30
The ambulance personnel assess you and call for someone else to come and treat you in your home	29
A GP or other medical professional comes instead of the ambulance	26
The ambulance service decides your problem is not serious enough to send a vehicle and gives you advice including to visit your GP or to contact another service, such as NHS Direct	21
The ambulance takes you to another type of medical care provider that is not a hospital (such as a GP surgery or Minor Injury Unit)	21
The ambulance takes you to another part of the hospital (not A&E)	19

Source: Omnibus survey of 1,623 adults aged 15+ by Ipsos for National Audit Office

encouraged to treat patients themselves and more than half also pointed to the development of the new emergency care practitioner role as an important change (**case example 10**).

3.15 Our survey showed that, in April 2004, 22 ambulance trusts were in the process of training emergency care practitioners, of which seven already had trained staff in the role. We found varying levels of training were provided, with some trusts running 18-week courses, and others more extensive BSc programmes. For example Coventry and Warwickshire Ambulance Service NHS Trust had developed certificate, diploma and degree level courses in conjunction with Coventry University. As with emergency nurse practitioners, there was a view among our interviewees that a greater degree of consistency was needed to facilitate the further development of the role across the country.

3.16 We found acute trusts' A&E departments too were redesigning the services they provided around the type of patients presenting. Increasingly, trusts were employing physio- and occupational therapists in A&E to deal with patients with ongoing needs (**case example 11**). In trusts with a large proportion of primary care-type patients presenting, GPs were being employed during fixed sessions to deal with those patients where their expertise was most appropriate. Our public survey confirmed that patients attending A&E were generally content to be seen by a GP, and trusts find that GPs order fewer unnecessary tests than junior hospital doctors.

## CASE EXAMPLE 10

### Redesigning roles around the needs of patients - development of the Emergency Care Practitioner

**Situation:** Ambulance services primarily train their staff to deal with serious and life-threatening emergencies, yet a large proportion of calls are for relatively minor problems. Many of these patients do require a face to face assessment and/ or physical assistance but might be better and more quickly cared for elsewhere, rather than being conveyed to an A&E department.

**Action:** London Ambulance Service NHS Trust's Emergency Care Practitioner programme trains experienced paramedics to work autonomously - diagnosing, treating and discharging patients whose condition is not life threatening. The Trust, in partnership with primary care trusts and St George's Hospital Medical School, has provided significant additional education in additional assessment and referral skills, minor illness and minor injuries so that the staff can determine the most appropriate care pathway for the patient and treat them at home where possible.

**Outcome:** Emergency care practitioners are deployed as single responders in cars working in specific primary care trust areas. In London, the average rates of conveyance to A&E have fallen from 70 per cent (normal ambulance service) to 50 per cent for patients seen by Emergency Care Practitioners and a wide range of care pathways are being used.

## CASE EXAMPLE 11

### Redeploying professionals around the needs of patients

**Situation:** Patients may be admitted to hospital unnecessarily because there is no alternative care pathway.

**Action:** In partnership Preston Primary Care Trust and Lancashire County Council Social Services have set up a Rapid Response Team, consisting of a social worker, district nurse, occupational therapist and physiotherapist to respond to referrals from variety of sources including A&E departments (usually within two hours). It operates during office hours Monday to Friday currently but the partnership is looking to extend this. The multi-disciplinary team assesses each referred patient, solving problems, providing equipment, information and advice and input to prevent further deterioration or unnecessary admission to either residential or hospital care. As well as promoting their services to GPs and acute hospitals, the team spent time out with ambulance crews.

**Outcome:** 95 per cent of referrals have been deemed successful - that is, the patient has been discharged home with the appropriate level of service support and equipment, thus avoiding the need for further hospital or nursing home care. 318 patients were referred from A&E in the year to August 2004.

#### (c) Reducing the need for emergency care by managing illness

3.17 Ministers during 2004 announced their intention to focus greater attention on the management of chronic disease and introduced a target to cut emergency bed days by five per cent by 2008. Management of chronic disease is also a key strand in the new GP contract introduced in April 2004. We found examples of good practice locally in some major disease areas.

3.18 Work was underway in a number of areas to improve the management of patients with chronic obstructive pulmonary disease (COPD)<sup>xv</sup>, where there is evidence that proactive approaches can reduce A&E attendance. (The disease costs the acute NHS sector some £300m for emergency admissions and inpatient care and has been estimated to cause 26,000 deaths annually<sup>32</sup>.) We found:

- in North Derbyshire multi-disciplinary primary care teams were improving primary care and information to patients on managing their disease;
- in Leeds the emergency care networks were developing integrated care pathways for patients encompassing diagnosis, disease management, early discharge and pulmonary rehabilitation; and
- Guy's and St Thomas' Hospital Trust had an outreach team to manage the care of COPD patients and provide home support to prevent unnecessary hospital admission.

3.19 Sixty-four acute trusts and eight ambulance trusts provided details of innovations on reducing emergency admissions for older patients. One major cause of such admissions is falls at home and the National Service Framework for older people requires integrated falls services across England by April 2005. Six acute trusts responding to our survey had falls project groups and six ambulance services have developed alternative responses for patients who have fallen at home. Surrey Ambulance Service NHS Trust listed their work on falls in older patients as one of the three most important changes in working practice as a result of the *Reforming Emergency Care* agenda.

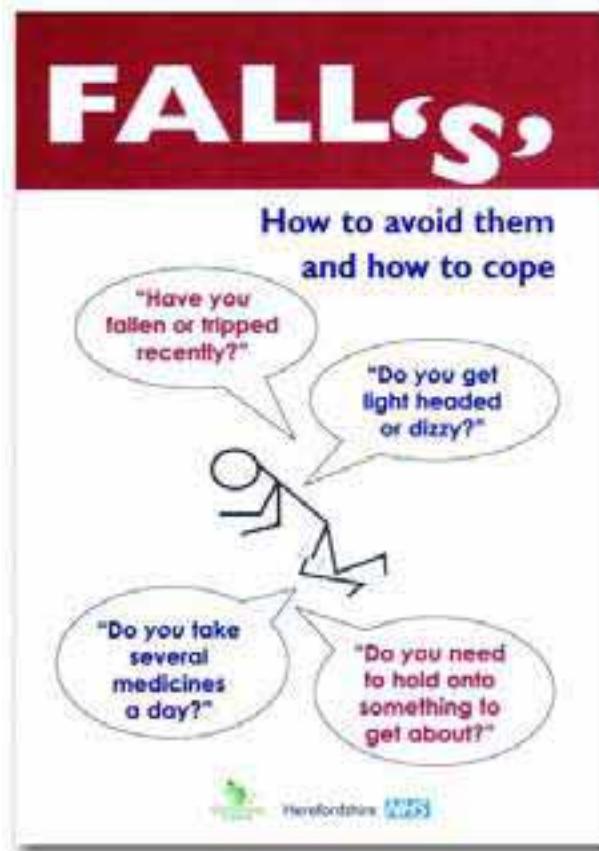
## CASE EXAMPLE 12

### Reducing emergency admissions for older patients at risk of a fall

**Situation:** Falls in older patients result in a significant proportion of A&E attendances and the after-effects can reduce the patients' ability to live independently.

**Action:** At King's College Hospital, London, older patients attending A&E with a fall are assessed by a specialist falls practitioner and, where necessary, referred to a specialist clinic and/or a rapid response team.

**Outcome:** The approach was shown to reduce falls by more than half in a randomised controlled trial.



<sup>xv</sup> COPD covers a range of progressive airflow obstruction symptoms, usually caused by smoking. It includes chronic cases of bronchitis, emphysema and asthma.

- 3.20 To reduce hospital attendances by patients with urgent mental health needs the Department has promoted the use of crisis resolution teams and the Care Programme Approach. These approaches aim to identify people at risk of psychiatric crisis before they need emergency care. Mental health trusts or primary care trusts with lead responsibility for mental health will be able to qualify for £200,000 incentive funding each, by demonstrating progress in achieving effective 24-hour crisis services for people with mental health problems. Strategic health authorities will assess eligibility for the awards after December 2004. In March the Department reported that there were 174 crisis resolution teams, of which 137 were operating 24 hours a day and seven days a week<sup>33</sup>.
- 3.21 As attendance-reduction initiatives become more widespread and successful, primary care trusts will need to ensure that the reduction in funding flows to acute hospital trusts consequent on fewer emergency admissions does not adversely affect the provision of emergency care services overall.

### Changes in responsibilities for out-of-hours GP services present both a challenge and an opportunity

- 3.22 From April 2004 GPs began working to a new contract under which they may opt out of providing out-of-hours services with agreement from primary care trusts. By December 2004 primary care trusts need to have arrangements in place to provide these services and the Department has allocated cash incentives for primary care trusts which can achieve sustainable out-of-hours services.

3.23 There is already a range of different out-of-hours providers, including local GP co-operatives, private sector contractors, ambulance trusts and primary care trusts themselves. The Department's Out-of-hours Exemplar Programme supported 34 pre-existing out-of-hours services to help them develop integration with NHS Direct and provide patients with access to GP out-of-hours services through a single telephone number, as models for the rest of England. The Department has now tasked NHS Direct to work with primary care trusts to extend this integration across the country by December 2006, according to the model which best fits locally<sup>34</sup>.

3.24 The full effect of the changes in out-of-hours services on the rest of the emergency care system has yet to be felt and there are risks. From our visits and surveys we found concerns that failure to integrate the new services adequately could result in increased pressure on A&E departments. However, the changes also provide an opportunity for addressing some of the issues around integration of emergency care in configuring new services.

3.25 The House of Commons Health Select Committee reported<sup>35</sup> on out-of-hours services in August 2004 and concluded that forward planning was taking place across England. Their recommendations highlighted the need for collaborative working between previous and new out-of-hours providers, GPs, NHS Direct and A&E departments in the transition period and beyond, and for clear information to be provided to patients on the whole range of services. There was also a need to monitor the financial effects of the new arrangements on health economies as a whole.

# Part 4

## Emergency Care Networks need to develop further to promote joint working

- 4.1 This part sets out why joint working is essential to further modernisation and integration of emergency care services and the scope for Emergency Care Networks to assist in this regard, and examines the development of their role so far. It shows that there is a degree of joint working between different providers but some obstacles remain and organisational leaders believe it could be improved. There is also a need to measure quality on a joined-up basis to drive improvements and this has been slow to develop. Emergency Care Networks, which were seen as a way of promoting whole system working, have yet to reach maturity and many lack power and influence.
- 4.3 Of 157 acute and ambulance trust chief executives who responded to our survey, 95 per cent thought that emergency care provider organisations in their area had worked together since *Reforming Emergency Care* was issued in 2001. Seventy-nine per cent believed that though joint working was quite effective there was scope for it to be more so, with about ten per cent feeling it was not effective. Five chief executives, of acute trusts only, thought it was extremely effective.

### Some obstacles remain to further joint working

- 4.2 Delivery of emergency care is still based around separate organisations - acute trusts, mental health trusts, ambulance trusts, air ambulance services, primary care trusts, GP out-of-hours, NHS Direct - each with separate management, budgets, objectives, professional roles, skills and protocols. In *Reforming Emergency Care*<sup>2</sup> the Department acknowledged that the whole system of emergency care provision is fragmented and when there is a lack of co-ordination, patients with similar symptoms may receive different treatment, depending on where they make their initial contact with the system. Disjointed working also has implications for efficiency and effectiveness. However, recently some jointly-funded NHS Walk-in Centres have emerged, crossing organisational boundaries.

- 4.4 Over three-quarters of both acute and ambulance chief executives agreed that organisational boundaries were one of the main obstacles to the different emergency care organisations working together. They stated that conflicting different performance indicators for the organisations resulted in individual priorities taking precedence over whole-system planning. Structural reform of the NHS was also cited as a problem, with mismatches between local organisational catchment areas and the relative immaturity of some of the organisations involved. Over 70 per cent of the chief executives also agreed that the availability of funding was a significant obstacle, concern for future funding streams being the most common.

### There is demand for more performance and quality indicators for emergency care as a whole

- 4.5 While further improvements against the four-hour target require joint working, our survey and interviews confirmed that it was still seen by some as a target for acute trusts, and there was demand for some more explicitly holistic goals for whole health economies. One whole-system indicator that has been developed measures how well ambulances and acute trusts work together to treat patients who have suffered a myocardial infarction (heart attack)<sup>xviii</sup>.

<sup>xviii</sup> A myocardial infarction occurs when blood supply to the heart muscle (myocardium) is reduced or stopped by a blood clot.

- 4.6 Ambulance service trusts are expected to have installed 12-lead electrocardiogram (ECG) monitors in all emergency ambulances by December 2004. Using these, paramedics can monitor the patient, transmit the results to A&E for medical confirmation and start injecting thrombolytic (clot-busting) drugs, rather than waiting for a doctor to do this in A&E. Measuring overall *call-to-needle* time (the time from the call for help by the patient or relative to the start of treatment) against a target of 60 minutes<sup>36</sup> is a better indicator of the effectiveness of care than measuring only the *door-to-needle* time (the time from arrival at A&E to the start of treatment<sup>xix</sup>). This has already encouraged progress by ambulance trusts. Of the 31 ambulance services, 22 had already provided pre-hospital thrombolysis by September 2004 and a further four were planning to introduce it. Difficulties with collecting accurate data meant the Healthcare Commission removed this measure from star-ratings for 2003-04, however.
- 4.7 Developing measures of emergency care as a whole system has been made difficult by the absence of integrated data collection systems for different providers or an electronic patient record to follow the patient's care through the system. Moreover, the National Institute for Clinical Excellence has yet to publish the patient pathways for emergency care that were looked for in *Reforming Emergency Care*<sup>2</sup>, and the National Patient Safety Agency's work around developing emergency care pathways in the pre-hospital arena is at an exploratory stage. **Case examples 13 and 14** illustrate approaches to measuring performance across the local emergency care system and to reducing variations in patient pathways to improve the efficiency and effectiveness of care.

## Emergency Care Networks have yet to reach maturity

- 4.8 In *Reforming Emergency Care*<sup>2</sup> the Department envisaged the role of Emergency Care networks as developing whole systems solutions to achieve the targets of *The NHS Plan*<sup>1</sup>. Clinical networks in the NHS are seen as an effective way of improving services that involve more than one group of professionals. Unlike clinical networks in other fields, those in emergency care are not formally managed and the objectives, size and scale of a network were for local determination. The Department outlined potential members, the data and measures to be considered and provided a checklist of issues for networks to address. Each acute and primary care trust received an allocation of £20,700 over two years as a contribution towards supporting emergency care networks and appointing local leaders.

## CASE EXAMPLE 13

### Local whole-system quality evaluation

**Situation:** In Norfolk, Suffolk and Cambridgeshire information on clinical outcomes and even numbers of patients needing treatment for major trauma was not available to help measure the performance of the system in delivering this care.

**Action:** The Norfolk, Suffolk and Cambridgeshire Strategic Health Authority's emergency care group set up a trauma review group in September 2003 to assess the current management of trauma care in the region, particularly for those sustaining major injuries, and identify ways of improving patient outcomes. The group involved GPs, ambulance trusts, A&E departments, orthopaedic and trauma surgeons, neurosurgeons, critical care physicians and public health specialists.

**Outcome:** The group obtained sign-up by all local acute trusts to participate in the National Trauma Audit and Research Network (see paragraph 1.27), to provide baseline data and identify changes in trauma care systems, as part of a wider review of trauma care.

## CASE EXAMPLE 14

### Better co-ordination of an air ambulance service improves the targeting of this service

**Situation:** Yorkshire Air Ambulance responds to calls from three different ambulance trusts. Staff in the three trusts were not always familiar with the criteria for dispatching the helicopters most effectively. The flexibility and speed of the air ambulance means it can make a significant difference to the outcome for the patient, but the costs are much greater, so tasking the service appropriately is important to avoid abortive journeys (stand downs) and maximise its impact.

**Action:** The usage and outcomes of the air ambulance were examined over the same six week period in both 2002 and 2003. During weeks three and four of 2003, volunteers from the aircrews monitored calls and influenced dispatching decisions in the three communication centres.

**Outcome:** During the two week period with aircrew intervention, stand downs were reduced by around a fifth. Usage of the air ambulance was also increased by 42 per cent compared with the same period in 2002. It was also up by 40 per cent and 25 per cent compared to the two weeks either side of the intervention period.

<sup>xix</sup> *The NHS Plan and the National Service Framework for Coronary Heart Disease (2000) set a target for the NHS: by April 2002 75 per cent of eligible patients should receive thrombolysis within 30 minutes of arrival at A&E. This was achieved across England as a whole by the first quarter of 2003 and virtually all acute trusts individually were meeting it by March 2004.*

4.9 We interviewed all 28 strategic health authority emergency care leads about networking in their sectors. All were at different stages and had taken various approaches to facilitating joint working. We found 105 local Emergency Care Networks in existence: Birmingham and the Black Country; Cheshire and Merseyside; Norfolk, Suffolk and Cambridgeshire; and Surrey and Sussex all had eight networks in their sectors whilst North Central and North East London reported none. From the 90 networks that replied to our survey, 24 were set up prior to the July 2002 deadline when acute and primary care trusts were to have designated a manager/facilitator to develop, maintain and co-ordinate the local network. Seven came into existence only during 2004.

4.10 Thirteen strategic health authorities had brought together the key stakeholders from their local networks and formed a strategic emergency care group, each with a different remit:

- in Norfolk, Suffolk and Cambridgeshire the strategic group develops sector-wide projects, such as a common emergency care practitioner role and the introduction of a capacity management system;
- in West Yorkshire the group provides a discussion forum to prevent local networks duplicating work; and
- in Trent, the emergency care lead has focused on ensuring the five local networks are fit for purpose, by clarifying the roles, function and delivery of emergency care planning and commissioning, revising the performance management structure and encouraging more formally managed networks.

Networks do not always include participation by the relevant parties

4.11 Forty per cent of local Emergency Care Networks in place on 30 April 2004 involved both relevant NHS trusts and the local authority social care sector but we noted a lack of involvement from the out-of-hours and alternative providers (**Figure 17**). Additionally, despite Departmental advice that users and carers should be involved in planning emergency care and provision, we found only 17 networks had actively engaged their representatives in discussions about local services. We estimate 30 per cent of acute trusts and two ambulance services did not belong to a network.

4.12 Networks averaged 18 members, incorporating both clinical and managerial staff across the professions, with representatives from a range of 26 types of organisation, but the bulk from acute and primary care trusts. Eighty-eight per cent (78) of networks met monthly or bi-monthly, but attendance, particularly by mental health trusts, was variable (**Figure 18**).

Many networks are still determining their role and responsibilities

4.13 Eighty-one networks had set their own local objectives and most had gained approval from member organisations at board level for them and had identified specific actions to be taken (64 and 69 networks respectively). We found some confusion about how the role and responsibilities of a network fit locally. For example, many health economies already had winter planning and improvement groups in existence, and there was an overlap with the work of the Emergency Services Collaborative. In many cases it was clear that the development of a network had been delayed because it was seen as a way to take forward the work of the Collaborative, rather than a complementary approach.

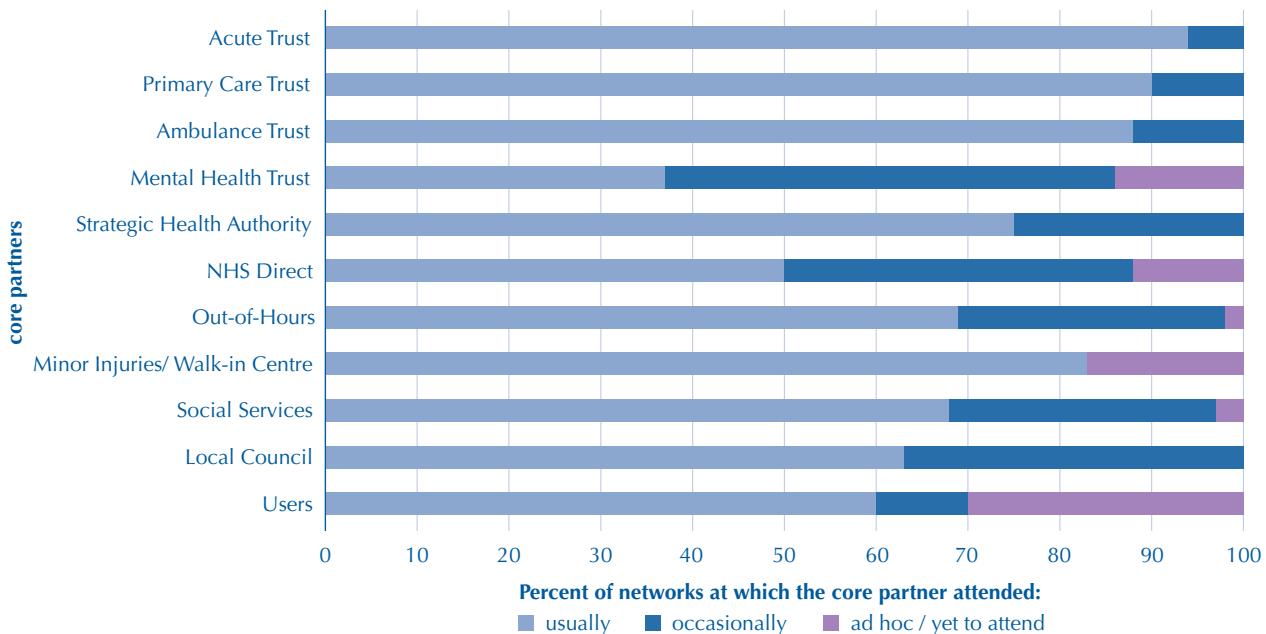
## 17 Not all core partners were included in every network

	Core Partners											
	NHS Organisations									Social Care Organisations		Users
	Acute Trust	Primary Care Trust	Ambulance Trust	Mental Health Trust	Strategic Health Authority	NHS Direct	Out-of-Hours	Minor Injuries/Walk-in Centre <sup>1</sup>	Social Services	Local Council		
Networks that involve this party	89 100%	88 99%	86 97%	59 66%	51 57%	51 57%	42 47%	6 <sup>1</sup> 9% <sup>1</sup>	64 72%	19 21%	19 22%	

### NOTE

1 Only 70 networks had access to a local NHS Walk-in Centre or Minor Injury Unit.

## 18 Attendance at network meetings is poor by some groups



*Source: National Audit Office*

Networks had not yet all addressed all the issues identified for them

4.14 Our survey found that virtually all networks routinely examined data on time spent by patients in A&E, underlining the level of importance attached to this target, but fewer regularly considered data on the other NHS Plan emergency care targets: twenty-eight networks considered ambulance response times, primary care access, and thrombolysis treatment times, but key data on delays in transfer of care and ambulance turnaround times were considered by fewer than eight per cent. Fewer than half monitored any of the data on service usage, bed occupancy, capacity plans, breaches or untoward incidents that the Department considered would support achievement of the targets. The most comprehensive reviews were undertaken by four networks which looked at measures of bed occupancy, service usage and untoward incidents.

4.15 Seventy-seven networks had begun to look at redesigning existing systems, the majority through analysing flows of patients. Nearly all the networks reported that they had considered the impact of changes in out-of-hours services, with 58 per cent making changes to the local situation as a result. For example, 14 networks had developed an agreed service model for out-of-hours care.

4.16 Reflecting the fact they were at an early stage of breaking down barriers to joint working, we found networks had most consistently addressed organisational and professional boundaries and care pathways, with 40 per cent of networks tackling all three. We found no networks had yet addressed all the issues on the Department's original checklist (**Figure 19**). The National Director for Emergency Access also recommended some additional areas networks could monitor including: admission avoidance; divert protocols improving intermediate care; reducing delayed discharge and joint planning of emergency and elective work. More than three-quarters had yet to look at any of these.

Networks tend to lack power and influence to improve joint working

4.17 Half of the networks reported they had been able to develop locally agreed protocols for joint working between organisations, but over a third reported that the performance targets for different organisations militated against true joint working, because they were not necessarily complementary.

**19 Networks had not yet addressed all the key issues identified by the Department for their attention**

Department of Health Network Checklist issue	Percentage of networks addressing issue
New working practices across organisational boundaries	81
New working practices across professional boundaries	71
Care pathway guidelines	69
Optimisation of data transfer	15
Patients' experience being adversely affected by developments	12
Referral guidelines	11
Emergency care capacity management	8
Bed management systems	4

**NOTE**

Checklist points on reducing duplication of documentation had not, we judged, been considered by any of the networks

*Source: National Audit Office*

4.18 Funding streams for delivering services also are still mainly based around individual organisations. Forty per cent of networks said they had access to some funding for their co-ordination role, but not all of this money was annually recurring. In only eight cases had member organisations contributed funds. More than 60 per cent of networks said that funding availability was a significant barrier to improving emergency care access and delivery. They foresaw problems in reallocating funding to deliver whole-system improvements because of the financial pressure on many trusts and a lack of transitional funding once the Collaborative ended.

4.19 Networks themselves are expected to achieve change by influencing decision-making in member organisations, but despite getting approval at trust board level for their objectives and planned actions, network chairs were concerned that they had no formal role within decision-making structures.

4.20 Nearly half the achievements cited by networks involved acute trusts only, and were often based on the work of the hospital-based Collaborative. Few initiatives were truly cross-organisational. Exceptions were the introduction by four networks of computerised joint capacity management systems which monitor demand in real time across acute trusts and ambulance services, and of joint escalation plans for managing high demand.

### The Department is encouraging further development of networks

4.21 Despite considerable progress in some areas, there is still some way to go to achieve the full transformation of emergency care from organisational 'buildings-based' care to a 'service-based' model with joint working the norm. The Department's allocation of incentive funding in March 2004 to individual trusts and not to whole health economies or networks was also seen by some as a missed opportunity to boost networking. From April 2004 trusts have been required to agree the use of this funding with their lead primary care trust. And the Department has now recognised that attention has to be widened if targets are to be met in a sustainable way. In August 2004 it issued a revised checklist to help networks focus their efforts which was jointly produced by emergency care and primary care teams, indicating the emphasis on a whole system approach.

# Appendix 1

## Methodology

This study has aimed to assess the impact of the key four-hour A&E total time target, and more widely the progress in modernising the emergency care system which surrounds A&E. In doing so we sought to identify good practice among a variety of NHS organisations involved in the delivery of emergency care, making use of existing information wherever possible. For example, the detailed work done by the Commission for Health Improvement in 2003 on ambulance service trusts performance in its clinical governance reviews examined the accuracy of performance data and made a number of recommendations regarding management of these trusts, which have since been undergoing major modernisation. We did not seek to duplicate this or other recent work carried out by other organisations.

We used the instruments detailed below to gather the information used in the report.

### Advisory panel

We invited a panel of individuals with a range of experience and expertise in emergency care to advise on the scope of our study, methodologies and emerging findings. There were two formal meetings of the panel and we approached the panel members throughout the study period for advice. We are grateful to panel members:

Dr Tina Ambury, General Practitioner	Clinical Adviser in unscheduled care, North Manchester Primary Care Trust; Vice-Chairman of Council, Royal College of General Practitioners
Dr Matthew Cooke, Consultant in Accident and Emergency Medicine	Emergency Medicine Advisor, Department of Health
Dr Rob Crouch, Nurse Consultant (Accident and Emergency)	Southampton University Hospitals NHS Trust
Dr Ffion Davies, Consultant in Emergency Medicine	Royal College of Paediatrics and Child Health
Professor Adrian Dixon, Consultant Radiologist	Royal College of Radiologists
Mr Brian Dolan	National Executive of Royal College of Nursing Emergency Care Association
Mr John Heyworth, Consultant in Emergency Medicine	Immediate past-President, The British Association for Emergency Medicine
Professor Kevin Mackway-Jones, Consultant in Emergency Medicine	Central Manchester and Manchester Children's University Hospitals NHS Trust and Medical Director of Greater Manchester Ambulance Service NHS Trust
Ms Sue Page	Chief Executive, Northumbria Healthcare NHS Trust
Mr Paul Phillips	Vice-President, Ambulance Service Association
Mr Simon Robbins	Chief Executive, Surrey and Sussex Strategic Health Authority
Dr David Williams	Clinical Adviser in A&E to the Health Service Commissioner (Ombudsman)
Mr Simon Williams	Patients' Association
Mr Wilf Williams	Chief Executive, Canterbury and Coastal Primary Care Trust

## Visits to health economies

We carried out visits in February and March 2004 to emergency care provider organisations in five health economies, in each case centred around an acute hospital trust. The selection of acute trusts was based on a number of factors, including annual number of visits to A&E, geographical location, performance as measured by published Department of Health statistics and the phase of the Emergency Services Collaborative with which they were involved. The organisations visited were:

- **Brighton and Sussex University Hospitals NHS Trust;** Surrey and Sussex Strategic Health Authority; Brighton and Hove City Primary Care Trust; Sussex Ambulance Service NHS Trust; South Downs Health NHS Trust (mental health care provider).
- **Guy's and St Thomas' Hospital NHS Trust;** South East London Strategic Health Authority; Southwark Primary Care Trust; London Ambulance Service NHS Trust; South London and Maudsley NHS Trust (mental health care provider).
- **Hereford Hospitals NHS Trust;** West Midlands South Strategic Health Authority; Herefordshire Primary Care Trust and Mental Health Partnership; Hereford and Worcester Ambulance Service NHS Trust.
- **King's Lynn and Wisbech Hospitals NHS Trust;** Norfolk, Suffolk and Cambridgeshire Strategic Health Authority; West Norfolk Primary Care Trust (also provider of mental health services); East Anglian Ambulance NHS Trust.
- **Lancashire Teaching Hospitals NHS Trust;** Cumbria and Lancashire Strategic Health Authority; Chorley and South Ribble and Preston Primary Care Trusts; Lancashire Ambulance Service NHS Trust; Lancashire Care NHS Trust (mental health care provider)

During our visits we conducted semi-structured interviews with senior staff at key organisations involved in the provision of emergency care in these regions. The visits provided us with examples of good practice which have been included in the report, as well as providing a more detailed level of understanding of how NHS organisations work to deliver emergency care services, both individually and in partnership, than could be gained by questionnaires alone. We are grateful to all the above organisations for their help.

## Case examples

We have included a number of case examples in the report as a means of identifying and recognising the diverse and often innovative techniques trusts employ to improve performance. In the course of our visits to local health economies we sought to identify examples of good practice from which other trusts and organisations may be able to learn lessons and improve their own performance. We also identified a number of such examples from the Emergency Services Collaborative web-based reporting tool, which allows trusts to share experiences and learn from one another. Further examples were identified through other direct contacts with practitioners and organisations including Casualty Plus Ltd.

## Censuses of health service organisations

Key among our methodologies were four censuses, covering strategic health authorities, emergency care networks, acute trusts with A&E departments and ambulance trusts. Details of each survey are set out below. Copies of all survey questionnaires used may be found at <http://www.nao.org.uk>.

### (a) Strategic Health Authorities

We conducted structured interviews by telephone with the designated emergency care lead of all 28 strategic health authorities, with a 100 per cent response rate. The survey was designed to assess the level of joint working at the strategic health authority level, whether authorities had established strategic Emergency Care Groups and if so, how well developed they were and what activities the group had undertaken to evaluate and improve performance in their region.

### (b) Emergency Care Networks

We sent questionnaires via e-mail to 111 emergency care network chairs. Fifteen networks did not reply and six disputed that they constituted a network, giving a total of 90 responses. Excluding the six disputed groups, this gives a response rate of 86 per cent. The questionnaire aimed to assess: the coverage of networks; the number of organisations involved; the networks' maturity; what they were doing to improve services; and difficulties they were experiencing. It also sought to identify good practice examples to improve partnership working.

### (c) Acute Trusts

Acute trusts with an A&E department were notified of the need to complete our questionnaire by e-mail in the Department of Health Chief Executive's Bulletin for the week of 5 to 12 March, 2004 with a reminder in the bulletin for the week 26 March to 2 April, 2004. The questionnaire was available for download by selecting a link in the electronic bulletin. Seventy-six per cent of trusts (126 of 166) representing 153 separate A&E departments, returned completed questionnaires. The questionnaire sought to elicit the views of trusts regarding the impact of the *Reforming Emergency Care* agenda, joint-working amongst providers of emergency care and the level and suitability of non-financial resources available for emergency care, including buildings, staffing and training.

### (d) Ambulance Trusts

We e-mailed our survey questionnaire to the Chief Executive of every English Ambulance Trust, including the Isle of Wight Healthcare NHS Trust, who provide both acute and ambulance services to the Isle of Wight. We achieved a 100 per cent response rate. As with the acute trust questionnaire, we sought the views of trusts regarding the impact of the *Reforming Emergency Care* agenda, joint-working amongst providers of emergency care and the level and suitability of non-financial resources available, including staffing and training.

### Public survey

We commissioned from Ipsos a survey of the general public to assess their awareness of the availability of emergency services and how to access them. Interviews took place in March 2004, covering a sample of 1,623 adults in England, aged 15 and over, weighted across sex, age, social grade and working status to achieve a nationally representative sample size of 1,612. Findings from this survey are used in our report to illustrate public attitudes towards emergency care services, and how people make decisions about which services they use. The survey assessed the views of those who had sought urgent healthcare or advice within the past year, as well as those who had not. The survey measured what services people chose to use, the reasons for using these services and what, if anything, people would do differently the next time they needed urgent care. The survey also measured the views of people who had not required urgent care in the previous year as to which service they might choose, if required to do so, in specific circumstances. Key findings and a copy of the questionnaire used can be found at <http://www.nao.org.uk>.

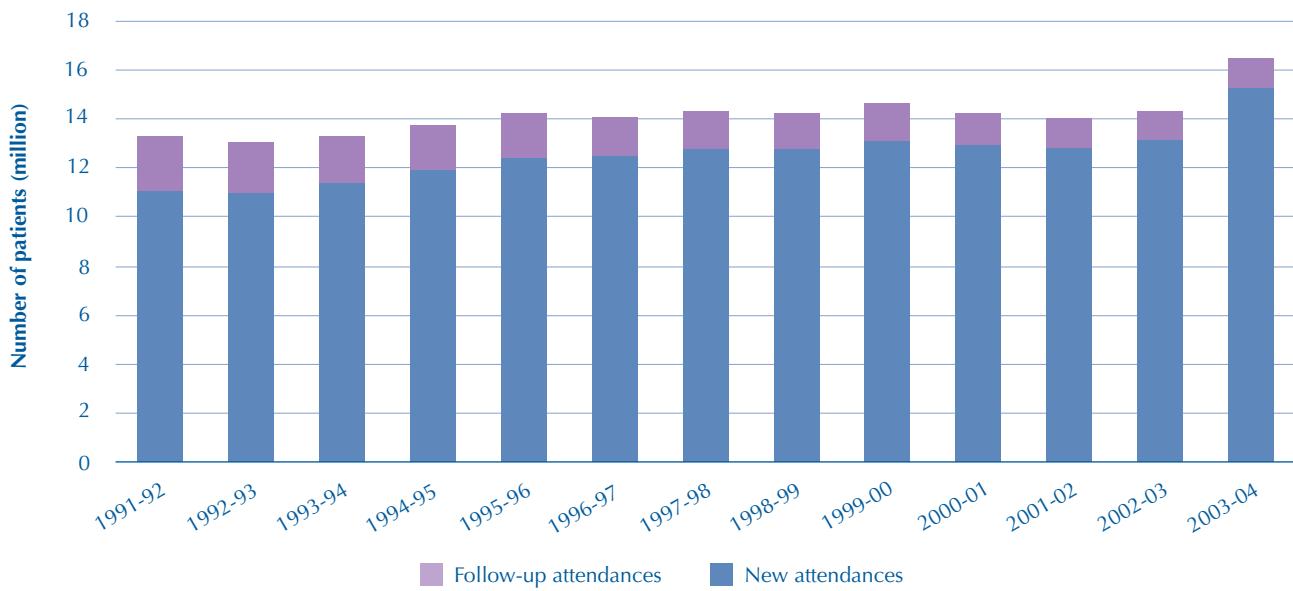
### Department of Health Performance Data

We made use of published Department of Health performance data available from <http://performance.doh.gov.uk> in order to evaluate trusts' performance over time and to make comparisons with data collected in our acute trust survey.

# Appendix 2

## Trends in demand for emergency care in England

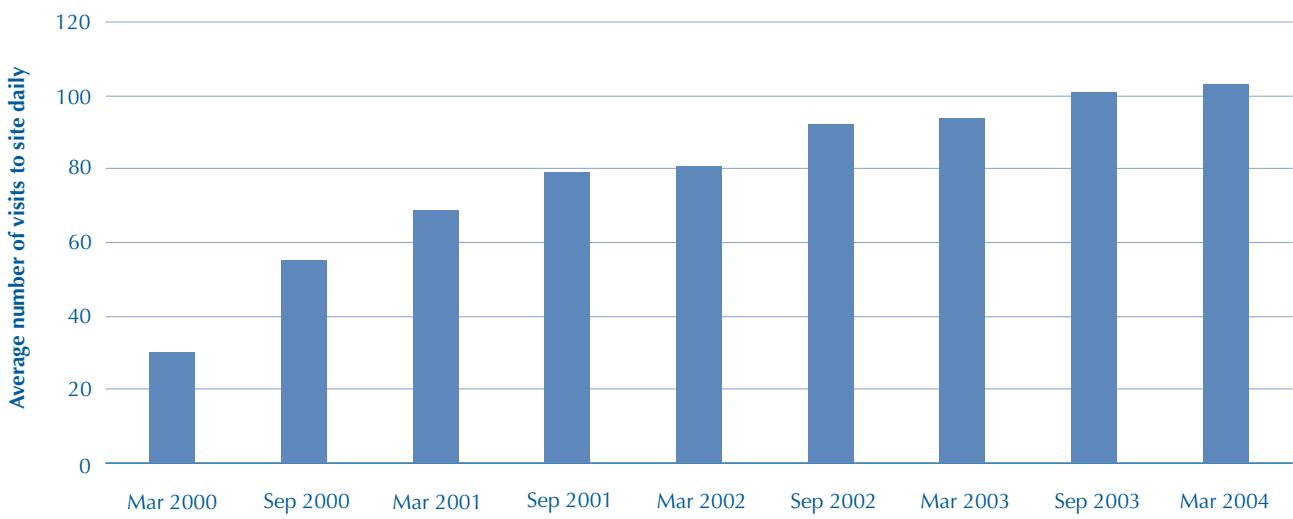
### New and follow-up attendances at A&E departments



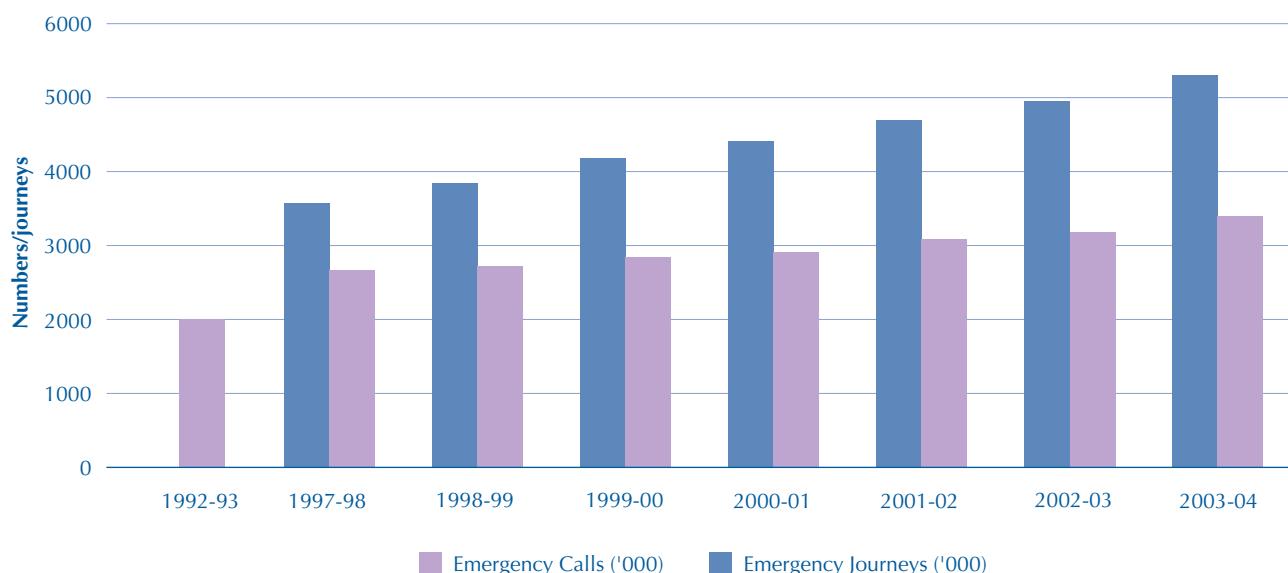
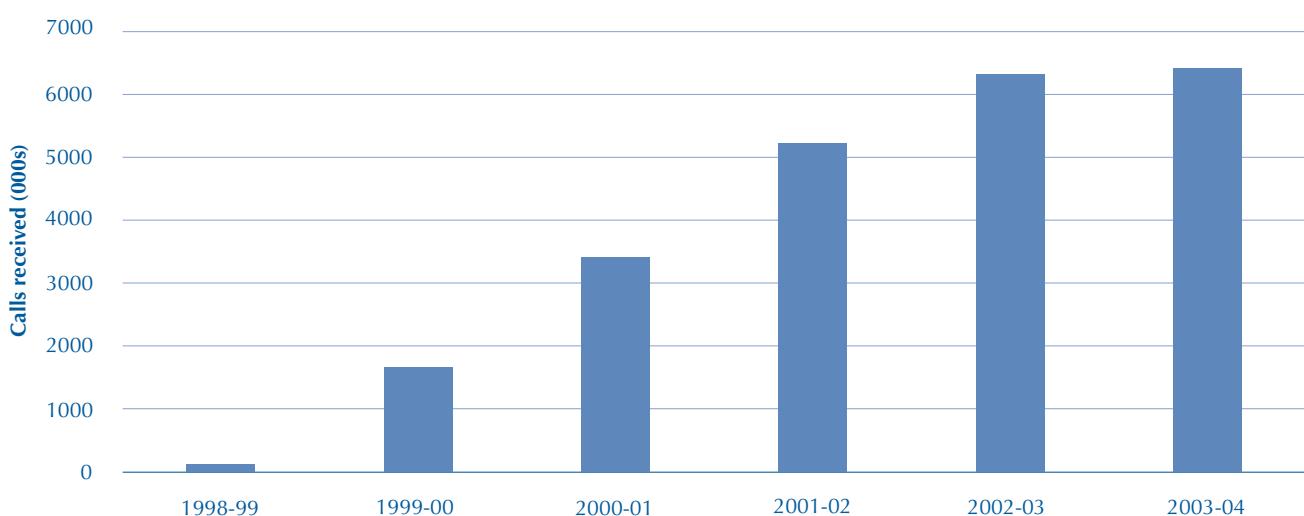
#### NOTE:

From April 2003 Type 2 and 3 A&E services including Walk-in Centres (below) are also included in A&E attendances (above).

### Average activity in Walk-in Centres



Source: Department of Health data

**Emergency calls and journeys, ambulance services****Calls received by NHS Direct**

# Appendix 3

**Main findings and conclusions from the Comptroller and Auditor General's 1992 report *NHS Accident and Emergency Departments in England*, (HC 158, Session 1992-93)**

## On management and organisation of Accident & Emergency departments:

The National Audit Office concluded that, allowing for constraints outside the departments' control, the Accident & Emergency departments they visited were being well run on a day-to-day basis. But the examination also pointed to opportunities for more positive management, which would be assisted by:

- stronger representation of Accident & Emergency departments in hospital management;
- much more flexible and capable computerised management information systems;
- measures to improve management of the departments' rising workload;
- consistently better use of nurses' skills;
- monitoring the adequacy and timeliness of support to the departments from other specialties and services;
- better communications with general practitioners; and
- development of systematic clinical audit.

Of these, better management information would pave the way for objective assessment of the efficiency and effectiveness of the departments' work. Extra resources would be required for the implementation of some of the measures listed above; additional resources need to be assessed at local level against the longer term benefits resulting from implementation and alternative uses.

Many of these issues were still relevant when we carried out our examination in 2004 e.g. adequacy and timeliness of support to A&E from other specialties (paragraph 2.18) and scope for further development of national clinical audit in emergency medicine (paragraph 1.26-8). However, the use of nurses' skills had moved on considerably in the health services as whole, with roles such as the Emergency Nurse Practitioner which did not exist in 1992 (paragraph 2.28). The focus on reducing waits had brought about a sea-change in understanding of and management of workload in A&E since that time.

## On planning and strategic issues:

Some of the measures need to be supported by action involving regional health authorities and, as purchasers, district health authorities. For example, regions need to develop policy frameworks (e.g. for location of Accident & Emergency departments) and purchasers need to continue to develop quality standards linked to contractual targets.

Numbers of new attendances at Accident & Emergency departments have continued to rise, currently to more than 11 million a year. Concerted action is needed to ensure that patients receive the most appropriate health care and that the departments are not overloaded with patients who might be better treated elsewhere. While some departments have made good progress in reducing numbers of return attendances, these could be further reduced in some places.

Significant structural changes in NHS management since 1992 had seen the demise of regional and district health authorities but the importance of strategic planning, now by strategic health authorities and primary care trusts still held in 2004. Attendances had continued to rise though return attendances had fallen. Part 3 of the report examines efforts to provide patients with the most appropriate type of healthcare for their needs and how fuller integration of all emergency care services (not just A&E) could make responding to rising demand more effective.

## Medical staffing

Towards the end of the National Audit Office examination, the Joint Planning Advisory Committee (which advises the Secretary of State for Health on the numbers of doctors in training) recommended that there should be an increased number of doctors in training in Accident & Emergency departments. This was intended to meet forecasts of appointments of an additional 72 Accident & Emergency consultants in England in the three years to the end of 1995. In May 1992 the Department of Health asked regions to provide details of their plans for implementing the increased numbers of training posts, which would have to precede increases in numbers of consultants.

The expected increase in numbers of Accident & Emergency consultants is consistent with National Audit Office findings that experienced medical staff in Accident & Emergency are overstretched. Health authorities and providers need to consider how quickly they can implement the planned increases, whilst taking account of other calls on their resources. They should ensure that new posts are deployed to achieve the greatest benefits to quality of service for patients.

Staffing was still an important issue for A&E departments in 2004, though the focus had shifted to using more senior doctors and nurses rather than mainly junior doctors (paragraph 2.24). There was still a shortage of Accident & Emergency consultants (paragraph 2.26).

## Severe Injuries

In 1998 the Royal College of Surgeons urged action to improve the care of patients with severe injuries, a view which professionals in Accident & Emergency have strongly endorsed. Taking account of these views and their own findings, the National Audit Office concluded that:

- early and continuing improvements are needed to ensure uniformly good provision for care of all severely injured patients;
- the Department of Health and the NHS should consider how trauma audit should be carried forward.

Trauma audit had been taken forward through the establishment of a UK national trauma audit and research network (paragraph 1.27). There was still scope for this work to be developed at the emergency care health economy level (Case Example 13).

## General conclusions

Accident & Emergency departments have been undergoing a long process of development, gradually moving away from the outdated concept of casualty departments. There has been good progress over the last 30 years, and the expected increases in numbers of experienced medical staff in Accident & Emergency departments should now pave the way for further substantial improvements. The National Audit Office examination suggested that potential benefits of the increased staffing include better training and supervision of inexperienced doctors. Other measures leading to improved quality of service to the public depend on better information systems and planning. While the implementation of some improvements will be subject to assessment of local priorities for Accident & Emergency services, and the competing claims of other specialties and services, purchaser/provider contracts offer a focus for agreeing priorities for action.

Whilst many of the issues we highlighted in 1992 were still important, the broader landscape was significantly different. The drive to meet the four-hour target had raised the profile of the specialty (paragraph 1.12) and led to reduced delays through modernisation and innovation (paragraph 2.5). Most importantly, emergency care was now being considered much more as a whole interdependent system, incorporating primary care services and inpatient specialist departments as well as A&E.

# Appendix 4

## Design guidance for an A&E department

For departments with 50,000 or more patients a year, from HBN 22, 2003:

- clearly signposted on major road routes and on hospital site, right up to entrance of department;
- united integral public transport system - adequate provision for safe transfer from bus stops, taxis ranks, drop zones and car parks;
- situated on the ground floor;
- well lit entrance, distinguished from ambulance entrance and protected by a canopy;
- access and facilities for disabled people;
- storage, equipment cleaning areas, ventilation, furnishings and finishes and hygiene practices to control risk of infection;
- housekeeping staff employed and cleaning equipment and waste disposal bins provided;
- major incident and decontamination facilities;
- personal and building security;
- environmentally friendly working;
- environment to help patients feel at ease, be conducive to efficient working and contribute to staff morale;
- natural light and art to be used;
- dedicated computed radiography facility and other scanning machines in close proximity to the A&E department;
- "near-patient-testing" for immediate analysis of bloods;
- accommodation for social care workers, mental health clinicians and therapy staff; and
- bereavement facilities.

From *The Impact of the Built Environment on Care within A&E Departments*, NHS Estates 2003 (carried out by Intelligent Space):

- building work should address the needs of visitors as well as patients;
- waiting areas should be observable from the reception desk to allow monitoring of patients and control access to clinical areas;
- layout should facilitate contact between staff, patients and visitors to increase communication;
- patient privacy and dignity should be better served;
- treatment rooms, where more extensive examinations can take place, should be of a similar size and specification so that usage can be changed and resources flexed to meet case mix demand; and
- layout should support natural way-finding and minimise time spent walking between different locations.

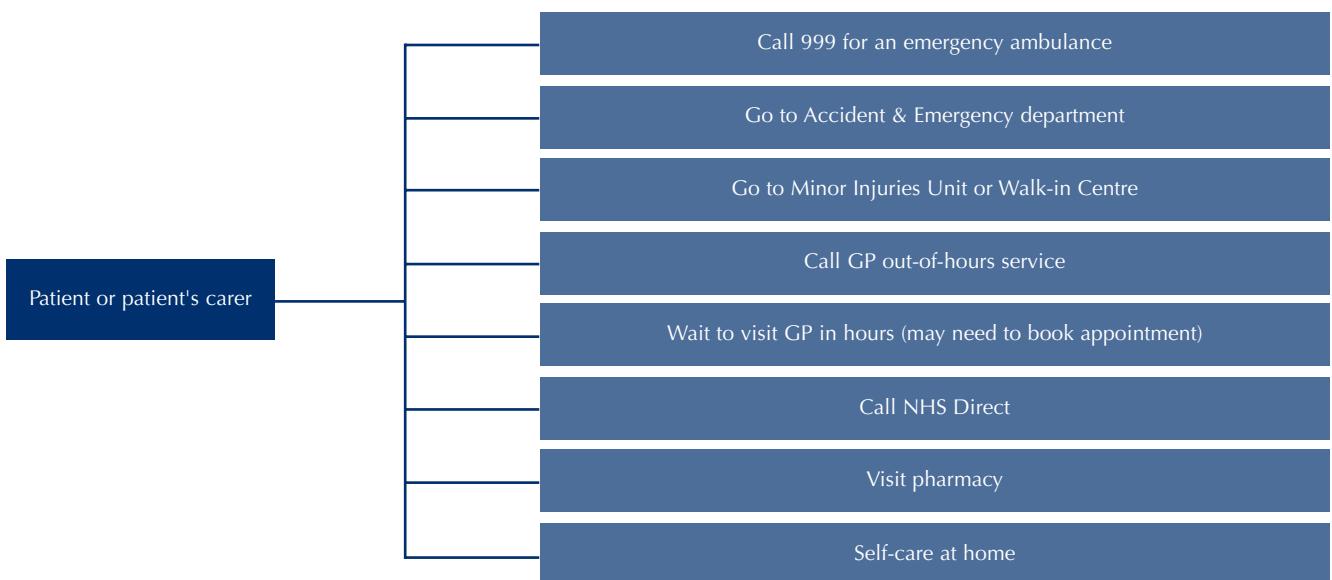
From *Modernising A&E environments*, NHS Estates, March 2004, patients want to see:

- a good standard of cleanliness;
- comfortable seating;
- no graffiti, litter or vandalism;
- appropriate colours on the walls;
- adequate lighting;
- practical floor coverings;
- drinks machines;
- electronic information screens; and
- hygienic and safe areas for children to play.

# Appendix 5

## Alternatives to A&E

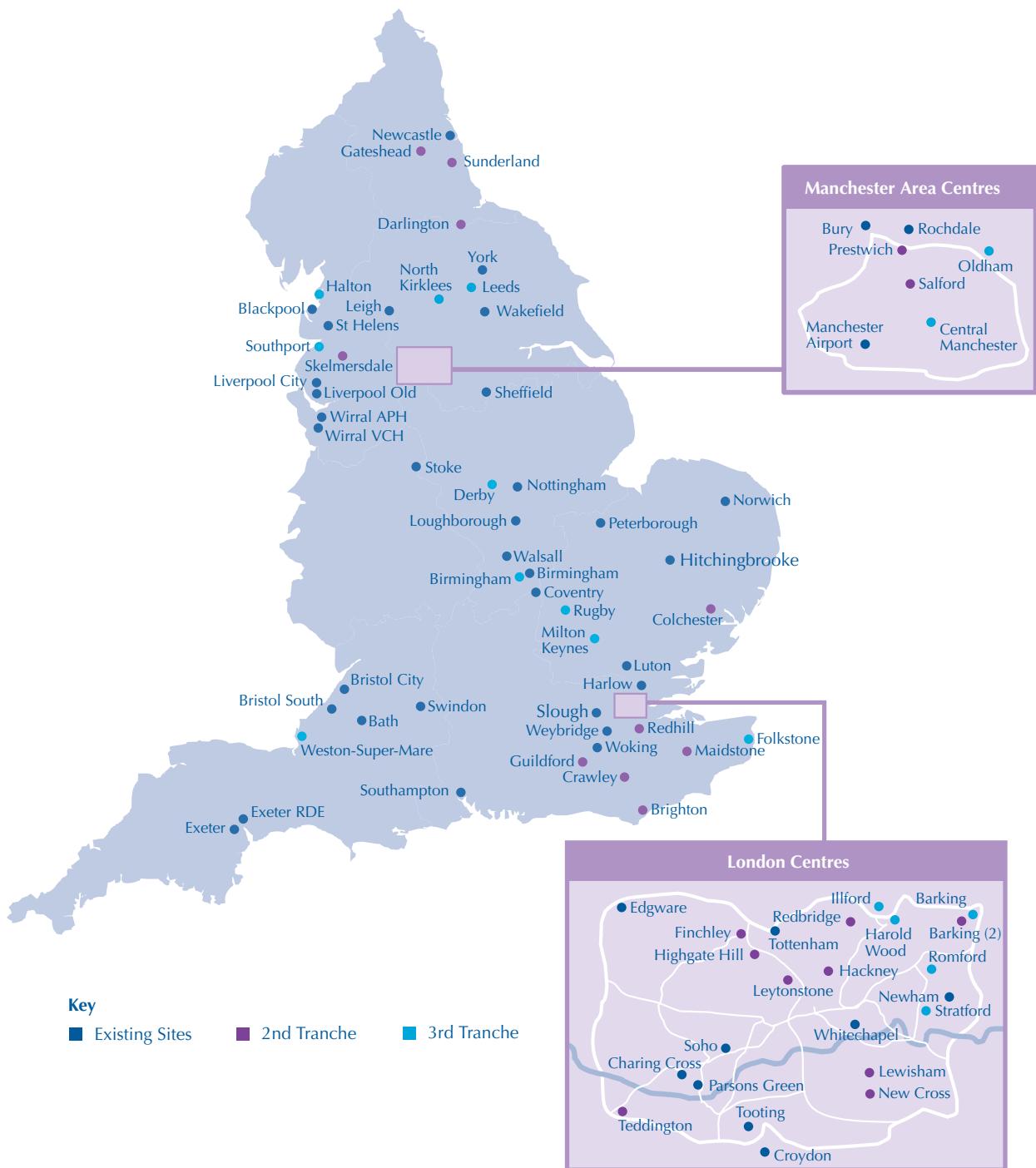
Patients requiring emergency care have a range of options



*Source: National Audit Office*

# NHS Walk-in Centres in England

*Map of existing and developing NHS Walk-in Centres in England*



Source: Department of Health

# Glossary of terms

Accident &amp; Emergency Department

**Type 1 A&E department** = A consultant led 24 hour service with full resuscitation facilities and designated accommodation for the reception of accident and emergency patients.

**Type 2 A&E department** = A consultant led single specialty accident and emergency service (e.g. ophthalmology, dental) with designated accommodation for the reception of patients.

**Type 3 A&E department** = May be doctor led or nurse led with designated accommodation for the reception of accident and emergency patients. A defining characteristic of a service qualifying as a Type 3 department is that it treats at least minor injuries and illnesses (sprains for example) and can be routinely accessed without appointment. Type 3 services include all NHS Walk-in Centres and other open access treatment services offering at least minor injury/illness services, whether located alongside a main A&E department or at another location.

A service mainly or entirely appointment based (for example a GP practice or outpatient clinic) is not a Type 3 A&E service even though it may treat a number of patients with minor illness or injury.

Clinician

Any health professional directly involved in the care and treatment of patients.

Clinical decision unit

An area under the control of the A&E department for patients who require a longer period of investigation and assessment than is appropriate to carry out in A&E, before a decision is made on whether to admit, transfer or discharge them.

Electrocardiogram

An electrical recording of the heart used in the investigation of heart disease or heart attack.

Inpatient

A patient who is admitted overnight to the hospital.

Minor Injury Unit

A unit dealing with non-life threatening injury, often led by experienced nurses or GPs.

Modern Matron

A nurse of senior sister or charge nurse grade with responsibility for the quality of patients' experience in a group of wards and charged with maintaining and improving the fundamentals of care.

Observation area

A small ward-style area run by the A&E department for patients needing to be admitted to a bed for a period of less than 24 hours for observation e.g. those with head injuries, asthma or poisoning.

Patient pathway

Guideline of care for a specific illness or injury that describes the events that are likely to happen during treatment.

Radiographer

A non-medically qualified healthcare professional. Diagnostic radiographers take and sometimes interpret images of the body, including x-rays, CT scans and MRI scans.

Radiologist	A qualified doctor specialising in the diagnosis and treatment of disease using x-rays, CT scans, MRI scans etc.
See and Treat	A modern approach to treatment of minor injury patients, avoiding the classification or triage (qv) stage.
Telemedicine	Provision of medical advice, diagnosis or care using electronic telecommunication links e.g. remote access to digital x-rays, transmission of ECGs.
Thrombolysis	The administration of "clot-busting" drugs to heart attack patients to reduce or avoid damage to the heart muscle.
Triage	The traditional system for classifying patients at A&E departments according to priority.
Users	Patients; parents or carers of patients.

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