# REFERRAL MANAGEMENT

## Lessons for success

Candace Imison
Chris Naylor

The King's Fund

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# Summary

GPs will be at the heart of commissioning under the policy direction set by the new coalition government. It is hoped that the new GP commissioning consortia will provide an effective counterbalance to the acute-sector providers which, supported by the new payment mechanism, Payment by Results, saw their resources and activity grow substantially under the last Labour government.

General practitioners (GPs) make more than 9 million referrals to hospitals for elective (planned) care each year (Hospital Episode Statistics 2008), referrals that then trigger billions of pounds of National Health Service (NHS) spending. Referral management schemes attempt to influence and control patient referrals, predominantly those by GPs, either directly or indirectly.

GP commissioning consortia are also about to enter into a cold, potentially arctic, financial climate. The need to control demand will be overwhelming, and many, if not all, might turn to referral management as a means of doing this.

## Different approaches to referral management

There are different approaches to referral management involving varying degrees of active intervention in the referral process (*see* Figure 1, page 2). At one extreme, referral management centres act as a conduit for all referrals and conduct clinical triage that may redirect or reject referrals. At the other, GPs are simply given clinical guidelines that are intended to influence their referral behaviour. In between these two extremes, there are more targeted approaches to clinical triage, focused on a specialty or condition, or the use of guidelines, reinforced through peer review and audit.

Yet there is a dearth of evidence about the impact the different approaches to referral management have.

> *We do not know whether referral management centres will increase or decrease risk, efficiency or choice, and little research evidence exists to support predictions of performance… These centres have appeared overnight in an evidence-free zone.*
>
> (Davies and Elwyn 2006, p 845)

## The different dimensions of GP referrals

We investigated three different dimensions of GP referrals:

- necessity: whether patients are referred as and when necessary without avoidable delay
- destination: where patients are referred to
- how the referral process is managed – for example, whether:
  - referral letters contain the necessary information in an accessible format
  - patients were involved in decision-making around the referral

  - all parties have a shared understanding of the purpose and expectations of the referral
  - appropriate investigations and tests have been performed before referral.

The available evidence suggests that:

- not all referrals are necessary in clinical terms, and a substantial element of referral activity is discretionary and avoidable
- there are patients who need a referral but fail to receive one
- a large number of those currently referred to secondary care could be seen in alternative settings
- many referral letters lack the necessary information
- there is frequently a lack of shared understanding of the purpose of the referral between the GP, the patient and the consultant
- appropriate investigations have not always taken place prior to referral.

This report aims to help fill the current evidence gap on referral management by answering the following questions.

- Can referral management effectively control demand and reduce unnecessary referrals?
- Can referral management influence other aspects of referrals – referral destination and process?
- Can referral management deliver savings?
- What are the other risks and consequences of introducing referral management, and how might these be overcome?

There were four elements in the research approach:

- a literature review
- two phases of qualitative research:
  - phase 1: interviews
  - phase 2: case studies
- quantitative research.

The literature review looked at evidence on the current quality of GP referrals and the impact of different types of referral management.

The first phase of the qualitative research consisted of semi-structured interviews with personnel from 21 of the primary care trusts (PCTs) known to be most actively engaged in referral management, with the aim of gaining an understanding of the different approaches to referral management being taken by PCTs and gauging at a high level their perceived impact. In the second phase, we selected four case studies to allow an in-depth look at some of the different approaches to referral management, and to provide a deeper understanding of the impact of referral management in a health economy, including some of the risks.

Finally, we performed some quantitative analysis of the last four years of outpatient data in order to compare the performance of the PCTs that had actively engaged in referral management with those that had not. The analysis also explored the PCTs that had seen the least referral growth to see whether there were any common features.

## What impact has referral management had?

The research showed that all referral management approaches have strengths and weaknesses (Table 1).

**Table 1** Strengths and weaknesses of different referral management approaches

| Approach | Strengths | Weaknesses |
|---|---|---|
| **Referral management centres** | ■ Can filter out inappropriate referrals<br>■ Can direct referrals to the most appropriate setting<br>■ Can help to fast-track diagnosis of possible cancer<br>■ Can improve the quality of referral letters<br>■ Can develop a body of expertise and guidance about local services<br>■ Can provide evidence to support commissioning decisions | ■ Might increase overall costs<br>■ Might demotivate local GPs<br>■ Might misdirect referrals (in the absence of full clinical information)<br>■ Might create a barrier to closer working between GPs and consultants<br>■ Might delay or lose referrals (in the absence of robust governance) |
| **Clinical triage and assessment** | ■ Can direct referrals to most appropriate setting<br>■ Can make services more accessible | ■ Might increase overall costs<br>■ Might misdirect referrals (in the absence of full clinical information)<br>■ Can delay access to a specialist |
| **Peer review and feedback** | ■ Can increase the likelihood of GPs referring when necessary<br>■ Can improve the quality of referral letters<br>■ Can increase the likelihood of GPs directing referrals to the most appropriate setting | ■ Might not always be effective in changing GP behaviour |
| **Financial incentives** | ■ Can change GP referral behaviour | ■ Might reduce appropriate referrals as well as inappropriate ones<br>■ Creates a conflict of interest for the GP |
| **Guidelines** (in combination with other support, such as structured referral sheets) | ■ Can increase the likelihood of GPs referring when necessary<br>■ Can improve the quality of referral letters<br>■ Can increase the likelihood of GPs directing referrals to the most appropriate setting | ■ Might not always be effective at changing behaviour |
| **Passive use of guidelines** | | ■ Evidence suggests it is not effective at changing GP behaviour |

Although half the PCTs studied believed that their referral management schemes had managed to curtail demand, the evidence from the quantitative analysis suggests that PCTs with active referral management were, in fact, no more likely to curtail demand than were other PCTs. At a national level, GP referrals to outpatients increased by 19 per cent between 2005 and 2009, while consultant-to-consultant and other sources of outpatient referral increased at double this rate, 39 per cent and 41 per cent respectively.

PCTs with referral management schemes vary widely across the national averages. Analysis at PCT level shows that even if a PCT manages to reduce the rate of GP referrals, these reductions can be negated by growth in activity from the other referral sources.

Referral management also has the capacity both to reduce and exacerbate the clinical risk inherent in any referral process. The research would suggest that PCTs might not be as aware of these risks as they should be. It was notable that few of the PCTs studied

were able to articulate clearly the governance processes they had in place for their referral management and triage services, appearing to rely on clinicians to manage the risk as part of their own clinical governance.

Another major issue is the risk of undertaking clinical triage in the absence of the patient and with limited supporting information, both about the presenting problem and the clinical history.

## Conclusion and recommendations

- A referral management strategy built around peer review and audit, supported by consultant feedback, with clear referral criteria and evidence-based guidelines is most likely to be both cost- and clinically-effective.
- The analysis suggests that the greater the degree of intervention, the greater the likelihood that the referral management approach does not present value for money.
- New and old technologies provide important opportunities to increase the support for decision-making available to GPs.
- Practice-based commissioning clusters and their successors, the GP commissioning consortia, are the obvious conduit and driver for peer review and audit.
- There is little evidence to support the 'passive' use of clinical guidelines.
- The use of financial incentives can be effective, but if they are used to drive blanket reductions in referral rates there is a risk of it leading to a reduction in necessary as well as unnecessary referrals.
- As points of principle, commissioners must recognise that:
  - any intervention to manage referrals cannot look at the referral in isolation but needs to understand the context in which it is being made
  - changing referral behaviour is a major change-management task that will require strong clinical leadership from both primary and secondary care
  - any referral management strategy needs to include a robust means of managing the inherent risks at the point when clinical responsibility for a patient is handed over from one clinician to another (so-called clinical hand-offs)
  - any strategy to reduce over-referral is likely also to expose under-referral, and thus to limit the potential for reducing demand
  - financial incentives to drive blanket reductions in referral numbers should not be introduced
  - reductions in referrals from one source can be negated by rises in referrals from other sources, so any demand-management strategy needs to consider all referral routes rather than target just one
  - a whole-systems strategy will be required to manage demand, with active collaboration between primary, secondary and community care services.
- Finally, it is evident that there is considerable variation in referral practice, not only within PCTs and practices, but also across PCTs and practices. Understanding this variation, and benchmarking performance locally and nationally, will be critical in any strategy that is to be effective at improving quality and reducing cost.

# 1 Introduction

General practitioners (GPs) make more than 9 million referrals to hospitals for elective (planned) care each year (Hospital Episode Statistics 2008), referrals that then trigger an annual spend of more than £15 billion in the National Health Service (NHS) (McKinsey 2009).

Referral management schemes attempt to influence and control patient referrals, predominantly those by GPs, either directly or indirectly (*see* below). This report brings together a review of the evidence on GP referrals and referral management schemes with the findings of our original qualitative and quantitative research. Our aim is to help those tasked with managing demand, such as GP commissioners, to understand the strengths and weaknesses of the different approaches. We address the following questions.

- Can referral management control demand and reduce unnecessary referrals?
- Can referral management influence other aspects of the referral – referral destination and process?
- Can referral management deliver savings?
- What are the other risks and consequences of introducing referral management, and how might these be overcome?

Section 2 lays out the background and policy context for referral management, and demonstrates its importance to the NHS given the financial challenges ahead.

Section 3 summarises the evidence from the literature review, which considered what is known about the current quality of GP referrals, and the impact of different approaches to referral management. The evidence on referral quality helps set the context for referral management, and asks what it is that referral management is trying to address.

Section 4 provides an overview from the qualitative research of the ambitions primary care trusts (PCTs) have had for referral management.

Section 5 provides the evidence from both the qualitative and quantitative research on the impact that referral management has had on referral volumes, and explores whether it has been effective in curbing and reducing demand.

Section 6 looks at the impact of referral management on other aspects of the referral process, including the referral destination and the referral letter. It also looks at the evidence on value for money.

Section 7 reviews a range of implementation issues and challenges, including:

- clinical governance and risks
- conflicts of interest
- clinical engagement
- adopting a condition-specific or comprehensive approach

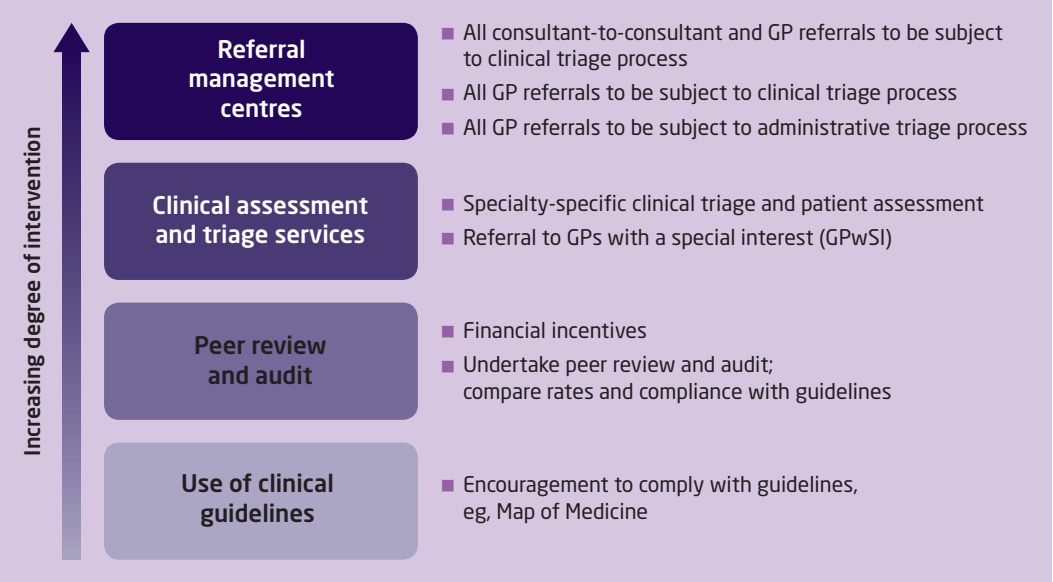
- operational issues
- ideas for improvement and the future.

Section 8 asks 'why referral management?', considering whether one referral management approach is better than another and the potential risks generated by referral management. It also draws out some key conclusions, and makes some practical suggestions on how the referral process might be improved.

## The different approaches to referral management

Different approaches to referral management involve varying degrees of active intervention in the referral process (Figure 1).

**Figure 1** Overview of different approaches to referral management




Referral management centres provide the greatest degree of intervention in the referral process. Some undertake clinical triage of all referrals from GPs to consultants, and also require consultant-to-consultant referrals to be subject to triage. Some conduct only an administrative triage of referrals. The centres may also act as a 'choice' centre and support patients in selecting secondary care services.

Clinical assessment and triage services or clinical assessment services provide specialty or condition-specific clinical triage and may also provide treatment. In most cases, they aim to treat as well as assess the majority of patients and reduce onward referrals to specialist secondary care services.

Peer review and audit encourages GPs to reflect on their referral practice, in the hope that high-referring GPs will reduce their number of referrals, and low-referring GPs will increase theirs. All GPs can be encouraged to comply with local pathways and protocols through this mechanism, and it is a strategy that has been adopted by many practice-based commissioning clusters. Some primary care trusts (PCTs) are using locally-enhanced service payments under the General Medical Services (GMS) contract to encourage it.

Finally, there is the passive use of referral protocols and electronic decision-support tools that describe pathways in the absence of peer review or audit.

## Methods

The research comprised four elements:

- literature review
- qualitative research, phase 1
- qualitative research, phase 2
- quantitative analysis.

### Literature review

We reviewed the available evidence on the quality of GP referrals and the impact of different referral management approaches.

### Qualitative research, phase 1

Using Choose and Book data, all PCTs were ranked by the percentage of referrals that passed through a triage or assessment service. Personnel from 21 of the 25 highest ranked PCTs were interviewed in order to understand the different approaches PCTs are taking to referral management, and to gauge at a high level its perceived impact.

### Qualitative research, phase 2

Four case studies were undertaken. Full summaries of their respective approaches to referral management are given in Appendix B (*see* pp 49–52).

- **Site A** The system in operation at this site is a gateway management service, undertaking clinical triage of all elective referrals. The service is run by a GP-led commissioning consortium that also uses the information generated to inform pathway development and commissioning decisions.
- **Site B** This site is a referral management centre that undertakes clinical triage of all GP Choose and Book referrals to secondary care, and provides a booking service for patients. Although initiated by a practice-based commissioning consortium, the service is now run by the PCT.
- **Site C** This site operates a referral governance programme led by the PCT, which provides incentive payments to GPs to encourage good referral practice. Each GP practice receives an indicative slot allocation for each hospital outpatient service, which is then matched to actual activity and fed back to the practice. There is no penalty for exceeding indicative allocations. The PCT also funds a wide range of out-of-hospital triage and assessment services.
- **Site D** The PCT that was the study of this case study took the decision to cease an active referral management programme supported by a referral management centre. The PCT continues to support a number of out-of-hospital triage and assessment services.

These cases provide a deeper understanding of the impact of referral management in a health economy, including some of the risks. Two of the case studies included PCTs that undertake a triage process for more than 51 per cent of all referrals.

A range of PCT staff, GPs, triage clinicians, consultants and patient representatives were interviewed (Table 2, overleaf).

**Table 2** Breakdown of interviewees in the four case study sites

| Stakeholder group | Site A | Site B | Site C | Site D | Total |
|---|---|---|---|---|---|
| PCT staff | 3 | 4 | 4 | 3 | **14** |
| Referring GPs | 6 | 6 | 6 | 6 | **24** |
| Triaging clinicians | 3 | 6 | 4 | 4 | **17** |
| Local consultants | 3 | 2 | 2 | 3 | **10** |
| Patient representatives | 2 | 3 | 2 | 3 | **10** |
| **Total** | **17** | **21** | **18** | **19** | **75** |

## Quantitative analysis

Four years of outpatient data were analysed. The performance of PCTs that had actively engaged in referral management was compared with those that had not in order to assess the impact that referral management had had on demand. The PCTs that had seen the least referral growth were also investigated to see whether there were any common features.

A more detailed description of the methods used is provided in Appendix A (*see* pp 45–48).

# 2 Background and policy context

In the National Health Service (NHS), the general practitioner (GP) often acts as a so-called 'gatekeeper' to other elements of NHS care: patients cannot gain access to elective (planned) secondary care without a referral from their GP. Thus, when making referrals, GPs have a dual role. First, they act as an expert clinical agent on behalf of the patient, and second as a rationing agent on behalf of the payer for care, in this case the NHS. As we will see in Section 5, our qualitative research demonstrates that this can be a difficult balance for GPs to strike.

The challenge for the NHS is to provide incentives that encourage GPs to balance the roles of clinical agent and rationing agent appropriately (Dusheiko *et al* 2003). One of the first attempts to do this was the introduction in 1991 of an internal market within the NHS, creating a purchaser–provider split. One element of these reforms was GP fundholding, in which part of the NHS budget was devolved to GPs who wished to take on a purchasing role for elective procedures.

The aim of these market-based reforms was to increase incentives for efficiency at a more local level. Before the introduction of fundholding, GPs referred patients to hospital without any clear idea of the cost implications, and received no feedback about their referral rate relative to that of their peers. It was hoped that one outcome of fundholding would be that GPs would scrutinise referral patterns and reduce variation, thus improving value for money (Dixon and Glennerster 1995). In 1998, Dixon and colleagues (Dixon *et al* 1998, p 128) observed: 'Although there are early signs that general practitioner fundholders and total purchasers are beginning to think about peer reviewing their colleagues, health authorities have been reluctant to investigate or act even on gross variations in clinical practice.'

The general conclusion from the fundholding experience was that fundholders constrained referral rates relative to non-fundholders and encouraged the development of more community-based alternatives to secondary care (Smith *et al* 2009).

In 1997, the new Labour administration retained the purchaser–provider split but stopped GP fundholding. Health authorities were reconfigured, and over time became primary care trusts (PCTs), holding more than 80 per cent of the NHS budget. The challenge for PCTs was that NHS expenditure is largely driven by clinical choices made by GPs and hospital doctors. The introduction of a national tariff meant that they could not negotiate on price, and patient choice limited their capacity to direct demand.

It is in this context that referral management centres were first set up, providing a mechanism by which PCTs could control demand. In 2005, in *Creating a Patient-Led NHS: Delivering the NHS improvement plan*, the Department of Health suggested that referral management would become more widespread in the future, acting as 'a key lever to manage the risk of "supply induced demand" in the acute sector' (Department of Health 2005b, p 22, para 3.15).

In 2007, a survey by the National Primary Care Research and Development Centre (Coleman *et al* 2007) found that 79 per cent of 73 PCTs surveyed had introduced or were about to introduce new referral management systems. Of those that had introduced referral management, 10 per cent were using referral management centres and 10 per cent peer review. The majority had developed clinically-specific approaches linked to clinical triage and assessment.

At around the same time, practice-based commissioning (PBC) was introduced. This gave GPs 'notional budgets' with which to purchase health care for their patients. The stated aim (Department of Health 2005a) was not only to improve patient care but also to align clinical and financial responsibilities. The new PBC consortia also used referral management as a means of managing demand and controlling budgets.

A 2007 qualitative study of practice-based commissioners (Checkland *et al* 2008) showed that a wide range of referral management mechanisms had been developed by PBC groups including:

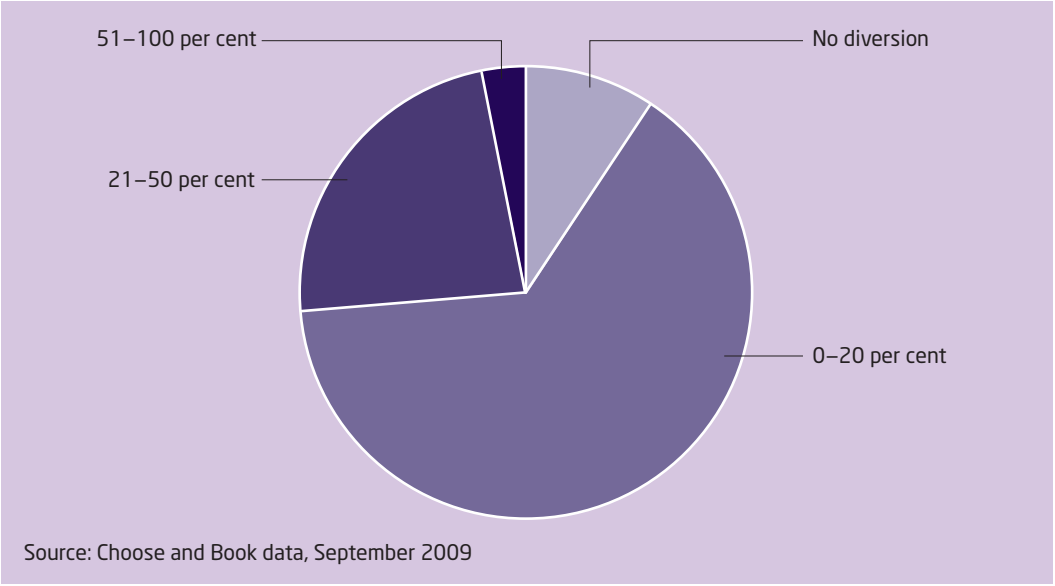
- in-house peer review of referrals
- diversion of referrals to so-called tier-two services provided by GPs with a special interest (GPwSIs) or extended-scope practitioners
- clinical triage of referrals at practice or cluster level (often in referral management centres), reviewing and sending back referrals thought to be inappropriate
- development of skills within practices so that they were better able to manage patients and avoid referral to secondary care
- negotiated reductions of consultant follow-up appointments and consultant-to-consultant referrals.

Our qualitative research found that in some cases the PBC schemes superseded PCT schemes, in others they ran alongside them, and in yet others PCTs took over PBC-originated schemes at a later date.

As illustrated in Figure 2, opposite, Choose and Book data supplied by the Department of Health in September 2009 show that:

- 91 per cent of PCTs have triage or assessment services that divert referrals that would historically have gone straight to secondary care, including some referrals to GPwSIs
- 65 per cent of PCTs undertake triage/assessment on between 1 per cent and 20 per cent of referrals
- 23 per cent of PCTs undertake triage/assessment on between 21 per cent and 50 per cent of referrals
- 3 per cent of PCTs undertake triage/assessment on more than 51 per cent of referrals.

**Figure 2** Proportion of PCTs undertaking referral diversion




Source: Choose and Book data, September 2009

Despite the wide uptake, the use of referral management has had its critics, particularly over the use of referral management centres. As Davies and Elwyn pointed out: 'We do not know whether referral management centres will increase or decrease risk, efficiency, or choice, and little research evidence exists to support predictions of performance. Sceptics might perceive these centres as Trojan horses, seeming to offer benefits while silently eroding aspects of clinical practice' (Davies and Elwyn 2006, p 845).

In 2009, in guidance on referral incentive schemes, including referral management centres, the British Medical Association (BMA) said: 'There has been some concern at the development by PCTs of incentive schemes that aim to reduce referral rates or the cost of referrals from general practice to secondary care' (British Medical Association 2009, p 2).

The guidance suggested that PBC would drive GPs to review referral practice and consider whether referral to secondary care was the most appropriate option. Although audit and review were encouraged, the guidance said that GPs should not accept incentive payments to make specific reductions in referral numbers. With respect to referral management centres, there was support for their development if their use were to be optional: 'There can be no compulsion for GPs to refer to referral management centres, and GPs should only refer patients to such centres if it is clinically appropriate and to the clinical benefit of the patient' (British Medical Association 2009, p 5).

In 2007, Peter Lapsley, chief executive of the Skin Care Campaign, wrote in the *British Medical Journal*:

> *Referral management schemes pose a serious threat to patients' interests. They introduce an extra step in the patient's journey, delaying the diagnosis of often complex and difficult skin diseases… It may be that schemes provide a short-term solution to a short-term financial problem. The risk though is that they will do lasting damage to patients' interests.*
>
> (Lapsley 2007, p 156)

The NHS now faces not a short-term financial problem but a medium- to long-term problem, with savings of more than £20 billion being required between 2011 and 2014 (Appleby *et al* 2009).

From the direction that policy looks set to take under the new coalition government, it would seem likely that GPs will be at the heart of commissioning during the current term of government. It is hoped that the new GP commissioning consortia will provide an effective counterbalance to the acute-sector providers which, supported by the new payment mechanism, Payment by Results, saw their resources and activity grow substantially under the last Labour government. The Conservative Party was explicit about this in its 2007 White Paper *NHS Autonomy and Accountability: Proposals for Legislation*:

> *As it currently operates, payment by results creates powerful incentives for providers to increase activity, but it has not been introduced alongside similarly powerful mechanisms for commissioners to manage the activity levels which they have to pay for. The result is an unbalanced market in which equilibrium exists at a point where hospitals are delivering an inefficiently high level of procedures. This imbalance can be solved by creating demand management mechanisms… We support the return of powerful, clinician-led commissioning in primary care.*
>
> (Conservative Party 2007, p 13, paras 3.7–3.10)

Experience suggests that the new GP-led commissioning organisations will look to referral management as a means of helping to manage demand, and yet there is a dearth of evidence about its efficacy. This report aims to help fill that evidence gap.

# 3 The quality of referrals and the impact of referral management schemes

## Current quality of referrals

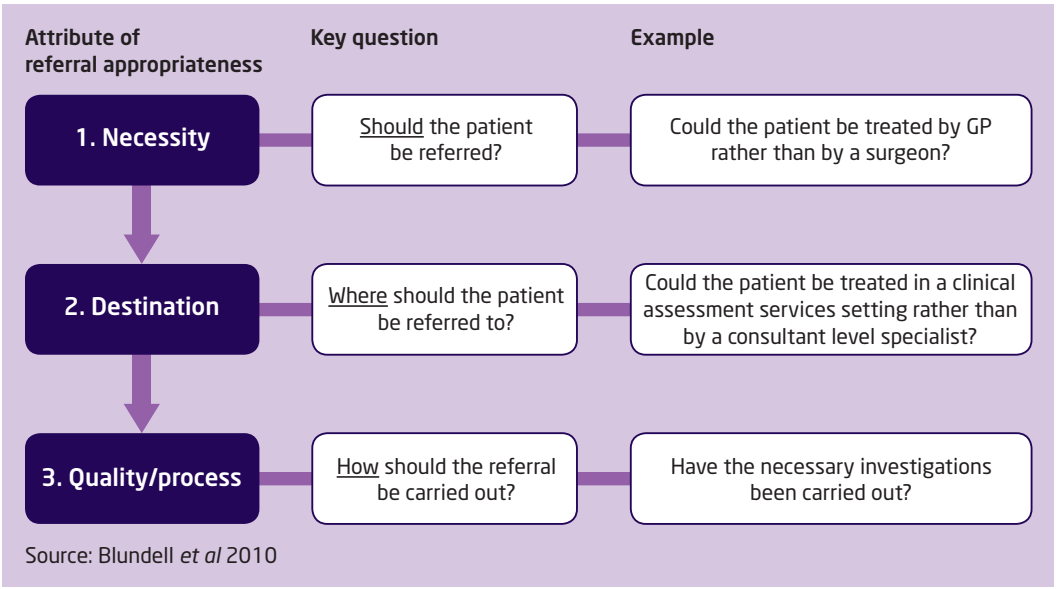
An important context for any assessment of referral management schemes is an understanding of the referral process and the challenges presented by referral. The King's Fund has been undertaking a major inquiry into the quality of primary care (The King's Fund 2010), one aspect of which has specifically considered the quality of general practitioner (GP) referral and diagnosis. This work has brought out some of the complexities and challenges of the GP referral process.

This report has taken as its framework the following three different dimensions of GP referrals and their quality (after Blundell *et al* 2010; *see* Figure 3).

We investigated three different dimensions of GP referrals:

- necessity: whether patients are referred as and when necessary without avoidable delay
- destination: where patients are referred to
- how the referral process is managed – for example, whether:
  - referral letters contain the necessary information in an accessible format
  - patients were involved in decision-making around the referral
  - all parties have a shared understanding of the purpose and expectations of the referral
  - appropriate investigations and tests have been performed before referral.

**Figure 3** Different dimensions of referral




Source: Blundell *et al* 2010

A subject for debate when considering referral quality is whether the referral rate can provide a robust proxy or marker of quality. Studies have reported variations of as much as 10-fold among the rates at which GPs refer to a particular specialty within a single area (Creed *et al* 1990; Ashworth *et al* 2002). This finding is borne out by our later quantitative analysis (*see* pages 22–29).

A good many studies have attempted to explain this variation in referral rates. None has been able to account for all of the variation in referral rates, but there is strong evidence that a wide variety of factors is involved (*see* box below).

### Factors influencing referral decisions

- **GP factors:** for example GPs' tolerance of risk, their age, gender, experience and training.
- **Patient factors:** for example patients' age, gender, social class and desire for referral.
- **Structural factors:** for example the distance to a specialist, the availability of alternatives, and the duration of the consultation between the GP and the patient.

(Source: Foot *et al* 2010)

The fact that a variety of non-clinical factors plays a part in referral practice cannot be taken to mean that all variation is inappropriate, but it does suggest that:

- there is a substantial proportion of 'discretionary' or avoidable activity
- any intervention to manage referrals cannot look at the referral in isolation but needs to understand the context in which the referral is being made.

For example, patients with identical conditions might be appropriately managed by one GP, but be referred to a specialist by another GP, if the latter does not feel he or she has the skills and supporting infrastructure to manage those patients safely in the primary care setting.

## Necessity for referral

Given the context, it is difficult to create objective tests of necessity for referral, not least because the necessity of referral is also dependent on context. In some cases, a referral might appear unnecessary in the sense that primary care management would be more appropriate, but in practice this depends on capacity and capability within primary care (Jones and Stott 1994). Assessments of necessity also vary among stakeholder groups. For example, in a study of musculoskeletal referrals, 43 per cent of referrals rated as 'probably' or 'definitely unnecessary' by the GP were rated as 'definitely appropriate' by the consultant (Roland *et al* 1991). Perhaps unsurprisingly, evidence suggests that patients almost always see their referral as necessary (Bowling and Redfern 2000).

Surveys of specialists suggest that, taking outpatient referrals as a whole, the majority of referrals are seen as being necessary and clinically appropriate (Bowling and Redfern 2000). However, in some clinical areas, audits have indicated that there may be a large minority of referrals, up to one-third, that are not clinically necessary. For example:

- for musculoskeletal conditions, 23 per cent of referrals to orthopaedics were assessed by specialists as being unnecessary (Roland *et al* 1991)
- for cancer, 28 per cent of urgent and 37 per cent of non-urgent referrals were assessed as being unnecessary (Patel *et al* 2000).

Conversely, there is also evidence of late referral in certain specialties (Roderick *et al* 2002; Clark and Thomas 2005; Khattak *et al* 2006), suggesting that some patients in need of referral are not referred until their condition has reached an advanced stage. For example:

- 38 per cent of renal patients were referred late for kidney dialysis; in 45 per cent of these cases the delay was assessed as avoidable (Roderick *et al* 2002).

Qualitative work also indicates that a proportion of referrals are made not out of a belief that the referral will deliver clear benefits to the patient but rather in response to feelings of frustration, time limitations or a sense that GP management has failed (Nandy *et al* 2001; Clemence and Seamark 2003). In some cases GPs make a referral because they perceive a need to 'do something' but cannot afford to spend any more time on the consultation (Bowling *et al* 2006). This again illustrates how a proportion of 'unnecessary' referrals may be the product of the time limitations and other constraints within which GPs must operate.

## Destination of referral

With the increasing levels of complexity and sub-specialisation within specialist services, there is concern that it is becoming more and more difficult to select the best destination for each referral. For example, in the case of musculoskeletal disorders, there can be a lack of clarity about whether a patient should be sent to orthopaedics, rheumatology, physiotherapy, or elsewhere, with 27 per cent of orthopaedics referrals being assessed as more appropriate for rheumatology (Speed and Crisp 2005).

Another destination issue arises out of the development of out-of-hospital care. New out-of-hospital services offer consultation with hospital specialists or GPs with specialist skills. For dermatology and musculoskeletal referrals, as many as 50 per cent of referrals could be diverted in this way (Salisbury *et al* 2005; Clews 2006). As discussed earlier, for many primary care trusts (PCTs) the attraction of referral management is that it offers a means of diverting referrals to these newly developed services.

## Referral process

Another key factor in the referral process is the quality of referral letters. There is strong evidence to suggest that the quality of referral letters could be improved. In one survey, 38 per cent of specialists in outpatient departments reported that referral letters contain inadequate information 'fairly' or 'very often' (Bowling and Redfern 2000). Information gaps include:

- a poor explanation of why the patient is being referred and the desired outcome (Jenkins 1993; Bodek *et al* 2006)
- missing clinical information, including the results of examinations and investigations, provisional diagnosis, and psychological and social details (Jenkins 1993; Mead *et al* 1999; Molloy and O'Hare 2003; White *et al* 2003; Speed and Crisp 2005; Bodek *et al* 2006).

The absence of key information can prevent reliable decisions with regard to risk assessment, triage or resource allocation (Bodek *et al* 2006; Webb and Khanna 2006; Graydon and Thompson 2008; Patel *et al* 2008), as well making it difficult to decide on the most appropriate destination for the referral (Speed and Crisp 2005).

Evidence also suggests that GPs, consultants and patients often do not share a common understanding of whether a referral is primarily for diagnosis, investigation, treatment or reassurance. Grace and Armstrong (1986) found such disagreement in two-thirds of

cases. Several studies have also shown that a proportion of patients should have been more thoroughly investigated or examined by GPs prior to referral (Molloy and O'Hare 2003; Bodek *et al* 2006).

### Conclusions on current referral quality

The available evidence on the current quality of referral suggests that:

- not all referrals are necessary in clinical terms, and a substantial proportion of activity is discretionary and avoidable
- there are patients who need a referral but fail to receive one
- a large number of patients currently referred to secondary care could be seen in alternative settings
- a considerable number of referral letters lack the necessary information
- there is frequently no shared understanding of the purpose of the referral among the GP, the patient and the consultant
- the appropriate investigations have not always taken place prior to referral.

The research evidence also highlights the complexity surrounding referral decisions, and the many competing factors that require consideration. This suggests that although there is clearly a substantial proportion of clinical activity that is discretionary and avoidable, the use of target referral rates as a means of avoiding it would be inappropriate.

## Referral management – the current evidence base

In this section, we review the literature on the impact of different approaches to referral management and improvement, including:

- referral management centres
- clinical triage and assessment services
- peer review and audit
- clinical guidelines
- financial incentives.

We also consider what is known about the cost-effectiveness of different approaches and referral management centres.

The most important research on the impact of referral management is an evaluation of seven referral management pilots, which comprised a variety of approaches including triage, audit and the use of a referral management centre. The research demonstrated falls in both the number and rates of referral to secondary care, but in some cases the introduction of alternative pathways for triage and assessment made it difficult to determine whether activity had fallen overall. The Welsh Review concluded: 'While all pilots were successful to some extent in managing demand from primary care they were less successful in changing what secondary providers chose to supply' (CRG Research/ Cardiff University 2007, p 43).

## Referral management centres

There is little existing research on the impact of referral management centres. In particular, very little has been published about centralised models covering referrals for all specialties. Previous literature reviews have found no systematic evaluations of this approach to referral management (Davies and Elwyn 2006; CRG Research/Cardiff University 2007), and our own literature search confirmed this.

There is a small evidence base regarding specialty-specific referral management centres, mainly based on a number of pilot initiatives commissioned in Wales in 2005/6 (CRG Research/Cardiff University 2007). This research did not explore the impact of referral management schemes on referral quality. As a result, the possible impact of referral management centres on the quality of letters, pre-referral tests/investigations or patient involvement in decision-making remains largely unknown.

No formal cost-benefit analyses of referral management centres have been conducted. However, the evaluation of the Welsh pilot sites did raise some concerns. The overall conclusion of the local health boards and trusts involved in the research was that the pilots should not be rolled out across the region because the costs associated with referral management centres would be disproportionate to the benefit unless they were focused on particular areas where quality issues were known to exist.

## Clinical triage and assessment

There is an emerging evidence base about the benefits of some clinical triage services, in particular those for musculoskeletal conditions. Community-based musculoskeletal clinics have been shown to improve the accuracy of referral destination (Maddison *et al* 2004; Rymaszewski *et al* 2005). A systematic review also found evidence that requiring a practice-based second-opinion can reduce unnecessary referrals, and that attaching a physiotherapist to a GP practice can increase the proportion of musculoskeletal referrals sent to the most appropriate destination (Akbari *et al* 2008).

The evaluation of the Welsh pilot sites also indicated that clinical triage could be successful in diverting referrals to alternative out-of-hospital services. For example, in one site a referral management scheme in which consultant dermatologists were sent a photo of the presenting complaint prior to referral had succeeded in diverting 39 per cent of referrals away from secondary care. In another site, preliminary figures indicated that 25 per cent of orthopaedics referrals were diverted to physiotherapy (CRG Research/Cardiff University 2007).

There are questions, however, about the cost-effectiveness of these services. For example, redirecting patients to GPs with a special interest (GPwSIs) for dermatology appointments has been found to produce considerable additional cost (Salisbury *et al* 2005). A specific difficulty was that although the referral management schemes had succeeded in diverting some patients to community-based services, these new services had been provided with additional funding and there had not been a commensurate disinvestment in secondary care. In other words, there was a danger of the community-based services being supplementary to secondary care rather than substituting for it.

An evaluation was conducted of a clinical assessment and treatment service for musculoskeletal referrals in North Wales (the targeted early access to musculoskeletal services programme) involving centralised triage of musculoskeletal referrals and diversion of some patients to community-based treatment (Maddison *et al* 2004). The service successfully diverted a proportion of patients, but in doing so appeared to

stimulate additional demand, with total musculoskeletal referrals more than doubling over 18 months. There were, however, high levels of patient satisfaction with clinical assessment and treatment services.

## Peer review and feedback

A common theme in the research literature is the need for improved feedback loops in referral processes. Feedback from consultants on the necessity of referrals, referral letter content or expectations of pre-referral management is often welcomed by GPs and provides an effective educational tool to improve referral quality (Wright and Wilkinson 1996; Gagliardi 2002; Elwyn *et al* 2007; Junghans *et al* 2007; Sibbald *et al* 2007).

Recent evidence from the Torfaen referral evaluation project in Wales suggests that peer review combined with improved feedback from consultants can be effective in improving referral quality (Evans 2009). An intervention involving weekly practice-level referral review meetings, and six-weekly cluster meetings including consultant feedback was found to achieve the following after one year:

- a 30 per cent reduction in hospital referrals, with patients being directed to community-based alternatives instead
- reduced variation in referral rates
- improved awareness and use of referral guidelines
- improved referral letter content
- improved pre-referral work-up, for example, more use of magnetic resonance imaging scans.

The intervention was also reported to be highly popular with GPs.

An alternative to having feedback as an integral part of the referral system is to organise *ad hoc* training opportunities for GPs, such as educational outreach visits or workshops led by specialists, that consider where to direct different referrals, what to include in referral letters, and so on. There is some research to indicate that such approaches can be effective, although the evidence is mixed (Akbari *et al* 2008).

## Clinical guidelines

Systematic reviews have shown that referral guidelines can be effective in changing referral behaviours if combined with feedback from peers and/or specialists (Faulkner *et al* 2003; Roland *et a*l 2006; Akbari *et al* 2008). Providing guidelines in combination with such feedback and/or other aids (such as proformas or standardised letters and risk factor checklists) increases the effectiveness of guidelines in changing referral thresholds, timelines, letter content and pre-referral management (Kerry *et al* 2000; Bennett *et al* 2001; Lucassen *et al* 2001; Navarro *et al* 2002; Griffiths *et al* 2006; Jiwa *et al* 2006; Kourkouta and Darbar 2006; Wright *et al* 2006; Junghans *et al* 2007; McRobbie *et al* 2008).

Structured referral sheets (Akbari *et al* 2008) that prompt GPs to conduct any necessary pre-referral tests or treatments have also been found to be effective in changing referral behaviour. However, their use might be limited, as the research studies evaluated their use for single conditions only, and at best only half of patients were referred with a completed sheet. In general, passive dissemination of guidelines is not an effective quality improvement tool (Idiculla *et al* 2000; Wright *et al* 2006; Akbari *et al* 2008), with any benefit seen being in the short term if at all (Hill *et al* 2000).

### Financial incentives

In addition to guidelines, education and restructuring, financial incentives have been shown to alter behaviour. One study demonstrated that the incorporation of referral standards into GP contracts is an effective method of improving referral letters (Wright *et al* 2006), and in another a PCT-led referral management system driven by financial incentives was effective in rerouting 50 per cent of referrals to GPwSIs (Clews 2006). However, Roland *et al* (2006) warned that, although financial incentives can change referral rates, 'unselected reductions in both necessary and unnecessary referrals may occur' (p 188).

## Conclusions

A range of interventions and approaches has been found to be effective in improving the quality of GP referrals. Although there is evidence to show that some improvement approaches do increase the quality of GP referrals in all dimensions, the cost implications are not clear, and there is some evidence that some interventions – such as referral management centres and the introduction of alternative clinical triage and assessment services – might add to rather than reduce costs.

There are also issues to be addressed around the methodology used to assess cost-effectiveness. For example, a decrease in referrals may be cost-effective in the short term but not in the long term, because a lower referral rate could potentially lead to higher long-term costs for certain conditions. Furthermore, some studies calculate cost up to the point of referral, without taking account of a potential shift in the future cost burden.

Table 3 provides a summary of the evidence we reviewed. Overall, the evidence suggests that 'lighter touch' interventions are likely to deliver better value for money. Peer review and feedback alongside the use of guidelines and structured referral sheets appears to offer the greatest hope of a cost-effective approach to referral management. There is little evidence to support the passive use of clinical guidelines. The use of financial incentives can be effective, but providing incentives for reductions in referral rates can lead to reductions in necessary as well as in unnecessary referrals.

**Table 3** Impact of different referral management approaches

| Referral management approaches | Impact dimension | | | | |
|---|---|---|---|---|---|
| | Referral necessity | Timeliness | Referral destination | Referral letter content | Value for money |
| Referral management centres | ✔ | ✔ | ✔ | ✔ | ?✘ |
| Clinical triage and assessment | | ✔ | ✔ | | ?✘ |
| Peer review and feedback | ✔ | | ✔ | ✔ | ?✔ |
| Financial incentives | | | ✔ | ✔ | ? |
| Guidelines (in combination with other support) | ✔ | ✔ | ✔ | ✔ | ?✔ |
| Passive use of guidelines | | | | | |

# 4 Expectations of and approaches to referral management

## What ambitions did primary care trusts have for referral management?

The scoping interviews undertaken with primary care trusts (PCTs) revealed that there has been no single objective for referral management schemes, and that they have not been driven by the desire to improve referral quality. Only 29 per cent of the PCTs interviewed had viewed quality improvement as a primary driver. Given the evidence provided in the previous section, this would seem to have been a missed opportunity.

Different PCTs had different objectives, which have changed over time. Many PCTs began with schemes that were primarily intended to support choice and the implementation of Choose and Book. Since then, the majority of these schemes have evolved and now primarily support referral diversion and the development of out-of-hospital services. As the financial climate worsens, one might anticipate an increasing focus on demand management.

Table 4 shows the high-level breakdown of the ambitions held by the 21 PCTs studied. These are not mutually exclusive; many PCTs had a number of ambitions for their schemes.

**Table 4** PCT reasons for establishing referral management schemes – feedback from scoping interviews

| Dimension of quality | Percentage of PCTs |
|---|---|
| **Referral necessity – demand management**: seeking reductions in overall rate of referrals (for example, through identification of low priority/clinically ineffective procedures and/or more explicit thresholds for referral) | 48 |
| **Referral destination – diversion**: diverting referrals to new out-of-hospital assessment and treatment services | 95 |
| **Process – referral quality**: | |
| ■ referral quality improvement (for example, ensuring GP referral letters include all necessary information) | 29 |
| ■ supporting patient choice | 50 |

### Necessity – demand management

As Table 4 shows, just under half the PCTs interviewed saw referral management as a means of reducing demand. A driver for some was an explicit target to reduce outpatient referrals set by their strategic health authority (SHA).

> *The original aim was actually set by the… health authority at the time, it was to reduce referral growth by 5 per cent. That's all it was, it was nothing to do with quality … it was just the system is going to collapse if growth is at this rate, so reduce it by 5 per cent and you've got three months to do it.*
>
> (PCT employee, case study site C)

At another of our case study sites, the primary focus had also been an ambition to save money, with little attention having been given to referral quality.

> *Reducing the number of patients being referred equalled a reduction in numbers of patients turning up at hospital equalled financial savings and that's what referral management was all about.*
>
> (PCT employee, case study site B)

## Referral destination – diversion

Of the PCTs studied, 95 per cent (20) were using referral management schemes to support diversion of referrals to alternative out-of-hospital services. Many of these new out-of-hospital services cost the PCT less per appointment than the tariff that paid for secondary care outpatient attendances, and were therefore seen to be a means of saving money.

For some PCTs, referral diversion was explicitly linked to local developments such as independent sector treatment centres or clinical assessment and treatment services. These services judge whether a referral is appropriate for secondary care, although it is hoped that the majority of referrals will be dealt with by the alternative services.

There was also recognition that general practitioners (GPs) are referring to an increasingly complex array of care pathways, and that this makes it difficult for them to choose the right one. The GPs in one of the case study sites saw the referral management service as a means of developing a body of knowledge about local services so as to support appropriate referral.

## Quality of the referral process

Only 29 per cent (6) of the PCTs studied identified improvement of the quality of the referral itself as a core ambition. Five of the six PCTs aimed to achieve this through clinical triage and feedback to GPs, and two, both case study sites, have sought improvement through locally-enhanced service incentives under the General Medical Services (GMS) contract.

## Other ambitions

Although the majority of referral schemes were targeted at at least one of the three dimensions of referral, some had much greater ambitions. In one case study site, the original aim of saving money developed over time to a much broader commissioning goal. The PCT devolved management of the referral management scheme to local GPs who, as practice-based commissioners, were very keen to generate knowledge and intelligence to enable services to be designed around the specific needs of patients, and to move from supplier-led models of care to demand-led ones. This was a particular issue as their local health care market is dominated by one secondary care provider.

> *If we've got the information – it's knowledge and power, isn't it? – we can then say, from the patient's point of view it would be much better if…*
>
> (GP, case study site A)

In this area, the referral management service aimed to improve the uptake of Choose and Book and deliver the 18-week target. This was a subsidiary ambition for a number of the PCTs studied. Capturing information to support practice-based commissioning

and pathway redesign in the absence of high-quality information from hospitals was a common theme. It is interesting to note that no PCT identified improving the patient experience as being a core ambition, although, as described later, some believed that they had improved the patient experience through their support of choice.

## Referral management approaches adopted

PCTs have taken a range of different approaches to referral management, with varying degrees of active intervention in the referral process, as described earlier. The referral management interventions adopted by the 21 PCTs studied are summarised in Table 5. It is important to note that as PCTs doing active referral management were targeted for our research, this will not be representative of all PCTs.

**Table 5** Breakdown of referral management interventions (scoping interviews)

| Approach adopted | Percentage of PCTs |
|---|---|
| Referral management centre | 50 |
| Clinical triage and assessment services | 100 |
| Peer review and audit (with financial incentives) | 10 |
| Peer review and audit (without financial incentives) | 20 |
| Use of clinical guidelines in primary care, eg, Map of Medicine | 50 |

### Referral management centres

At one end of the scale, PCTs have developed referral management centres to undertake clinical triage on all referrals from GPs to consultants and, in some cases, on consultant-to-consultant referrals as well. The referral management centres:

- assess referrals for their 'completeness/adequacy', and seek further information from the GP if necessary
- reject referrals for 'low priority/excluded' procedures
- divert referrals to alternative clinical assessment or tier-two services.

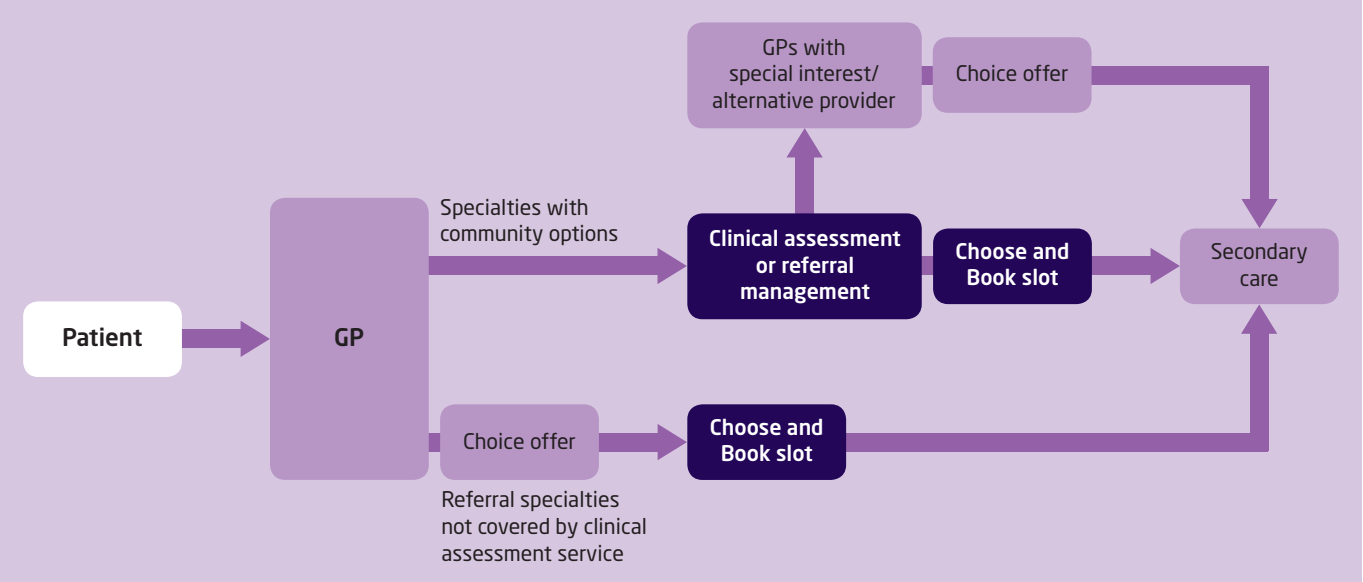
They can also act as 'choice' centres, supporting patients in selecting secondary care services. The implementation of Choose and Book, with GPs able to offer choice in the surgery, has led a number of the PCTs to cease using a full referral management centre. Two of our case study sites (A and B, *see* Appendix B, pp 49–50) have referral management centres.

### Clinical triage and assessment services

One model that appears to be growing rapidly is the development of clinical assessment and treatment services or clinical assessment services.

All of the PCTs studied as part of the scoping phase of this research had at least one of these services, with a tendency towards it being specialty- or condition-specific. The model encourages GPs to refer to the service, which then conducts the clinical triage to assess whether patients are suitable for it. The premise is that the majority of patients can be seen by the new service and therefore diverted from specialist services. This type of service frequently sits alongside a referral management centre (*see* Figure 4, opposite).

**Figure 4** Clinical pathway with active referral management




## Peer review and audit, and the use of financial incentives

The evidence from the scoping interviews is that there is increasing peer review and audit activity within practice-based commissioning clusters. Some PCTs are using locally-enhanced service payments under the GMS contract to encourage this, including to incentivise audit and review referral practice and the use of Choose and Book.

Two of our case study sites (C and D, *see* Appendix B, pp 51–52) are using this mechanism, one having had it in place for a number of years, the other having just introduced it. None of the 21 PCTs studied was providing explicit incentives to reduce referral numbers as was initiated in Oxford, where the local PCT provided an incentive for GPs to reduce their rates of referral (Brown 2008), but the future financial context could encourage PCTs to do this.

## Encouragement to use clinical guidelines

Another growing area is the use of electronic decision-support tools for GPs when they refer. One example of such a web-based tool is Map of Medicine (www.mapofmedicine.com), which offers more than 350 evidence-based pathways for common conditions across major specialties.

# 5 Can active referral management reduce demand?

This section looks at the impact of referral management on demand. The following section looks at the broader impact of referral management on referral quality and process. The analysis draws on the feedback from the scoping interviews, and the interviews undertaken with personnel from the four case study sites (*see* Appendix B, pp 49–52 for details).

It was striking how little formal evaluation of their local schemes primary care trusts (PCTs) had undertaken, and there was a lack of any quantitative assessment of the impact on demand. The qualitative findings have been supplemented with some quantitative analysis of Hospital Episode Statistics data on outpatient attendances (by referral source) to look at trends both in terms of absolute rates and overall activity. This has been broken down by PCT and general practitioner (GP) practice (for GP referral data) in order to evaluate the impact on referral activity and rates for all the PCTs interviewed, including the four case study sites, and to set this in a national context.

## Evidence from qualitative research

The evidence from the scoping interviews was that although referral management schemes had proved to be an effective way of diverting activity into alternative out-of-hospital services, they were far less effective at reducing demand and improving the quality of the referral process. Of the PCTs interviewed, 48 per cent had set out to reduce the rate of referrals, and of those only half (ie, 24 per cent of the total) believed they had achieved it. Some felt that the lack of reduction in referral volumes was unsurprising in a context of rising activity.

> *Well it's difficult when you look at volumes of referrals, because it's set against a backdrop of an increase in referrals that's been seen up and down the country for a variety of reasons.*
>
> (PCT employee, case study site A)

The rising volume of referrals was attributed to a number of factors. Some respondents believed that the reduction in waiting times and increased access to services was encouraging GPs to refer more. Others even felt that the referral triage services might encourage referral as there was less need for GPs to 'think for themselves'. Patient behaviour was also seen as a key driver by some. One consultant we interviewed hypothesised that referral thresholds might have fallen, although another suggested that this could be linked to rising patient expectations.

Only one of the four case study sites had been able to reduce referral volumes over the period 2005–09, the one that had used an incentive payment for GPs, but even it has failed to maintain a downward trend.

> *We as a health economy managed to stay in control over our demand in comparison to other health economy areas in our [strategic health authority]… It decreased by*

*about 10 per cent for the first couple of years and then it stayed static since then, so in other words we haven't seen any referral growth since that decline, which tells me that the system is in control and is balanced until we take the next step change in our programme.*

(PCT employee, case study site C)

There is also the belief in case study site C that the new out-of-hospital services have exposed a previously unmet need. Describing one of the local triage services, a local consultant said:

*I think it's found an unmet need as well, it seems to have identified an unmet patient population that I'm not sure where the patients were, but they've clearly generated a greater awareness of inflammatory disease and identified more patients.*

(Local consultant, case study site C)

Finally, in PCTs where the referral management schemes were not mandatory, there was a belief that some of the 'worst' or highest referring GPs would be referring outside the schemes and directly to the acute trusts.

## Managing patient expectations

Many of the GPs interviewed reported being influenced by patients' expectations or anxieties. Some described this as an 'occasional' influence, whereas others reported that it was a major driver of their referrals. Different patient populations may account for some of the difference – it was suggested that patient pressure is stronger in more middle-class areas and those with a large number of people from other countries without a strong tradition of primary care gate-keeping.

Attitudes around the appropriateness of responding to patient pressure varied in our study. Some felt that even where the GP does not perceive a clinical need, it can be appropriate to refer a patient with expectations that the GP is unable to meet or anxieties that they are unable to contain. In these cases, the referral serves the function of reassurance, and it was argued that refusal to offer such reassurance can be damaging for patient care in the long term.

*If the GP's done everything necessary, done their best to give reassurance and the patient still is not reassured, then having that consultant opinion that says well actually this doesn't need operating on or the course of management your GP proposed is perfectly the right one… some of the so-called inappropriate referrals which may just be for reassurance for everybody, GP and patient, might actually be quite appropriate because it aids the long-term management of that patient.*

(GP, case study site D)

Others argued that giving into patient pressure is an inevitability given an increasing culture of 'consumer sovereignty' and rising levels of health literacy among the general population.

*It gets to the point where you can't… you can't have a fight. There's only so much you can say, 'Well, actually I think we should approach it this way and do these investigations and then let's see.' If they are determined to have a referral you haven't really got much choice but to do that and sometimes it's not what you would think of as a quality or appropriate referral.*

(GP, case study site A)

Responding appropriately to patient expectations was seen to involve a balancing act – balancing the GP's perception of need against that of the patient, and balancing the

benefits of providing reassurance to individual patients against the need to maintain cost-effectiveness at the system-wide level.

> *It's a balance between what I consider to be their needs, and what they consider to be their needs, and their wants and anxieties.*
>
> (GP, case study site B)

> *I think also it has to be cost-effective, so I think you need to have a slightly higher level view of why you're referring rather than just necessarily pandering to the whims of patients' requests… At the end of the day this is public money and it has to be spent appropriately.*
>
> (GP, case study site C)

These insights into the practical realities of referral decision-making illustrate the complexities and multiple competing interests at play. They suggest that with regard to patient pressure, the opportunity for referral management might not be to eliminate referrals driven by patient pressure rather than clinical need, but to support GPs in striking an appropriate balance between the two drivers.

## Evidence from quantitative research

The changes in referral volumes and referral rates were analysed for the 22 PCTs with the highest proportion of referral activity going through some sort of referral management activity (Choose and Book data, *see* Appendix A, pp 46–48). At least 30 per cent of the Choose and Book referrals in all these PCTs went to a triage or GP with a special interest (GPwSI) service. The qualitative analysis draws on interviews with 21 PCTs, 20 of which are in the top 22.

The quantitative analysis suggests that there is no significant difference between the performance of PCTs undertaking a substantial amount of referral management and PCTs nationwide. Given that most PCTs were undertaking a mixture of different approaches, it is not possible to link this more specifically to different referral management methods. PCTs that had introduced full referral management centres were picked out, but were no more or less successful than others.

The year-on-year changes in referral volumes for some PCTs suggested data quality issues, for example, variances of 200–500 per cent (*see* Appendix C, pp 53–56 for a full summary of PCT results). PCTs with a percentage change in referral volumes in excess of one standard deviation of the mean, taking this to capture all variation within a normal range, were therefore excluded from PCT level analysis. Overall, there were 58 PCTs with anomalous results. The impact on the individual analyses is as follows:

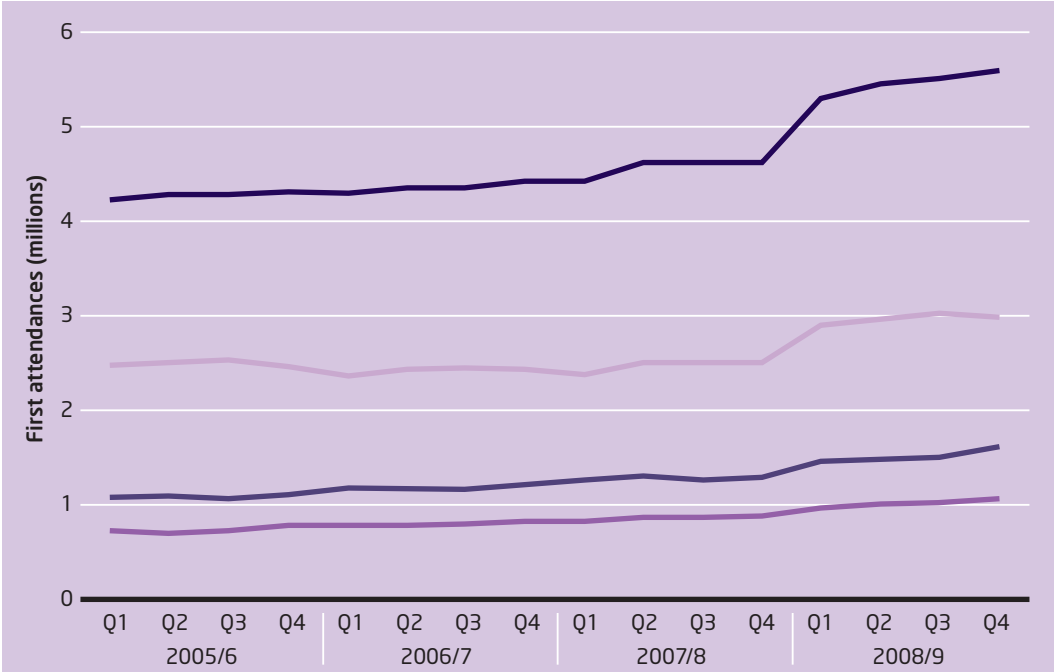
- GP referral volume variation by PCT: 27 excluded
- consultant-to-consultant volume variation by PCT: 26 excluded
- other referral volume variation by PCT: 22 excluded.

Figure 5, opposite, shows the overall trends in volumes of first outpatient attendances. The marked rise between Q4 2007/8 and Q1 2008/9 also suggests some underlying data quality issues.

### Changes in volume – GP referrals

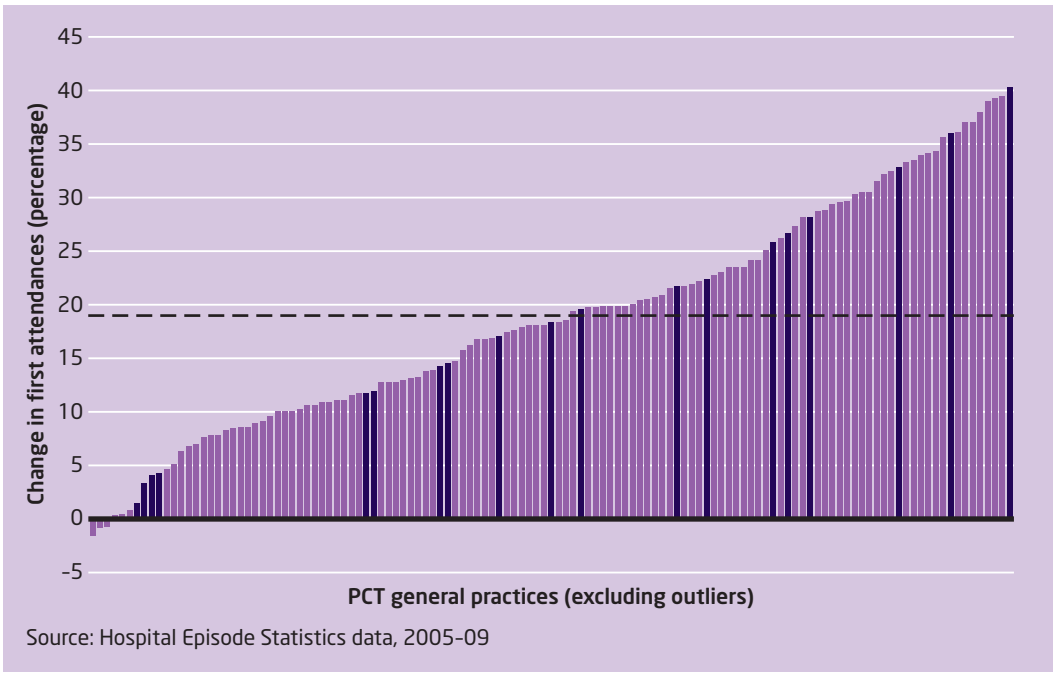
On average, the number of GP referrals to outpatient departments grew by 19 per cent between 2005 and 2009, but with wide variations around this average. Considering those within a standard deviation of this average, growth rates vary from –2 per cent to +40 per cent (*see* Figure 6, opposite). There is no discernible difference in this analysis between the pattern of activity for PCTs with active referral management and that in those without.

**Figure 5** Trends in volumes of first outpatient attendances by referral source by quarter, England, 2005–09




Source: Hospital Episode Statistics data, 2005–09

**Figure 6** Percentage change in volume of first attendances referred by GPs, all PCTs (excluding outliers), 2005–09




Source: Hospital Episode Statistics data, 2005–09

## Segmentation analysis of changes in GP referral volumes and rates

PCTs were segmented according to the PCT's GP referral rate in 2005/6 and the subsequent change in GP referral volumes over the following three years to 2008/9. The segmentation analysis aimed to investigate whether changes in GP referral volumes were linked to the underlying referral rate. PCTs with below average initial referral rates and below average growth were considered to be containing growth in GP referrals with a low rate. PCTs with below average initial referral rates but faster than average growth were considered to have low referral rates but uncontained growth. PCTs with above average initial referral rates but below average growth were considered to have high rates but contained growth. PCTs with above average initial rates and above average growth were considered to have uncontained growth in referral volumes and a high rate. Figure 7, below, demonstrates this segmentation.

**Figure 7** PCT segmentation by GP referral rate 2005/6 compared with percentage change in GP referral volumes 2005–9

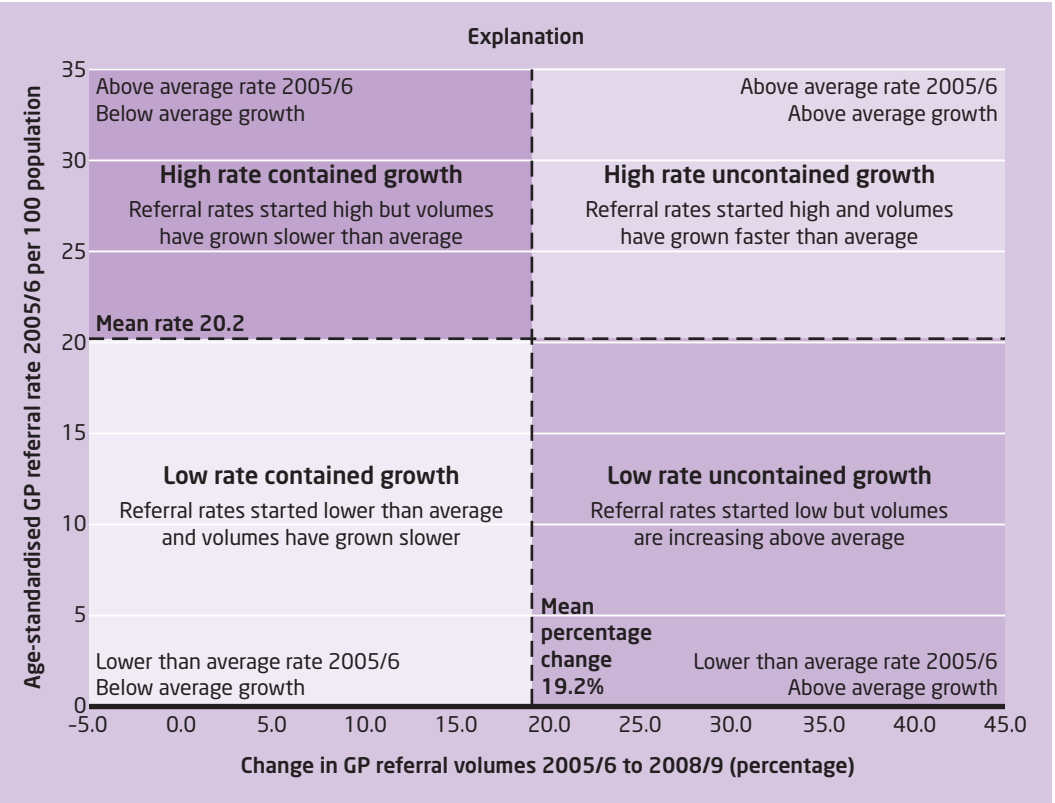
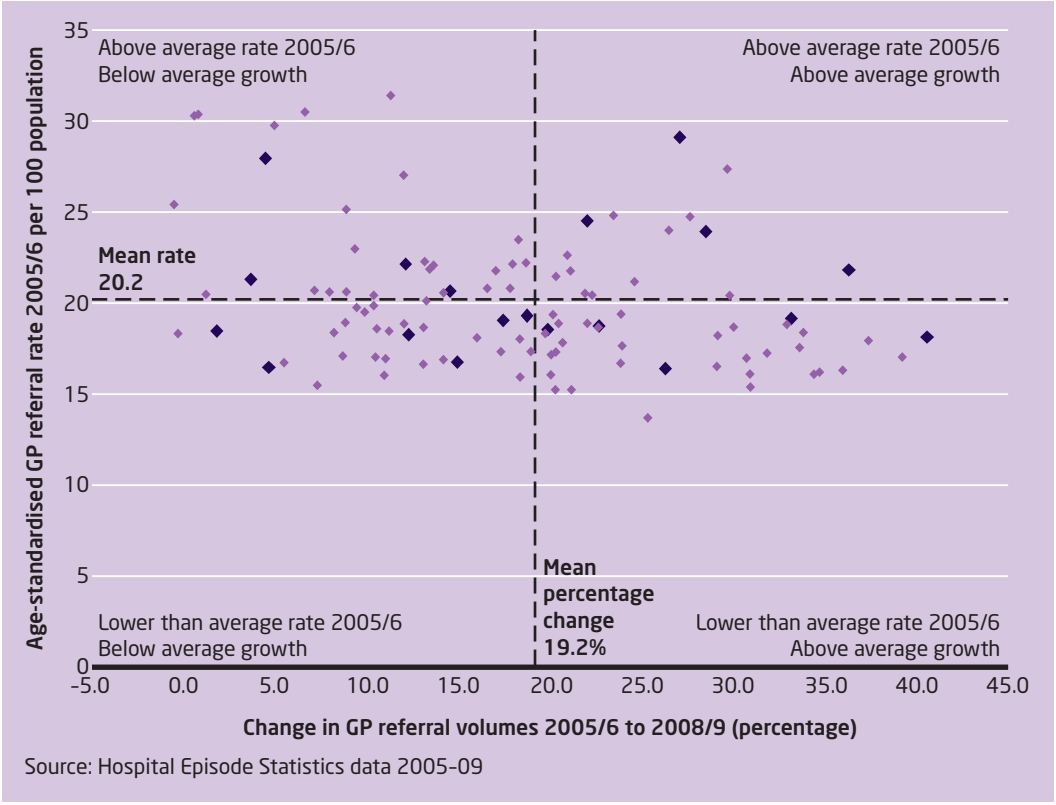



Figure 8 shows how PCTs are distributed within this segmentation, highlighting those with referral management schemes.

There is high variation in both GP PCT referral rates and in volume growth between PCTs. Despite efforts from some PCTs to manage referrals, PCTs with referral management schemes are found in each segment in the analysis, with 3 PCTs even falling into the 'High Rates and Uncontained Growth' segment.

The distribution of PCTs when looked at by deprivation quintile, were very similar to the overall distribution except that more deprived areas had slightly higher referral rates on average.

**Figure 8** Plot of GP referral rate 2005/6 compared with percentage change in GP referral volumes 2005–9, all PCTs (excluding outliers)




Source: Hospital Episode Statistics data 2005–09

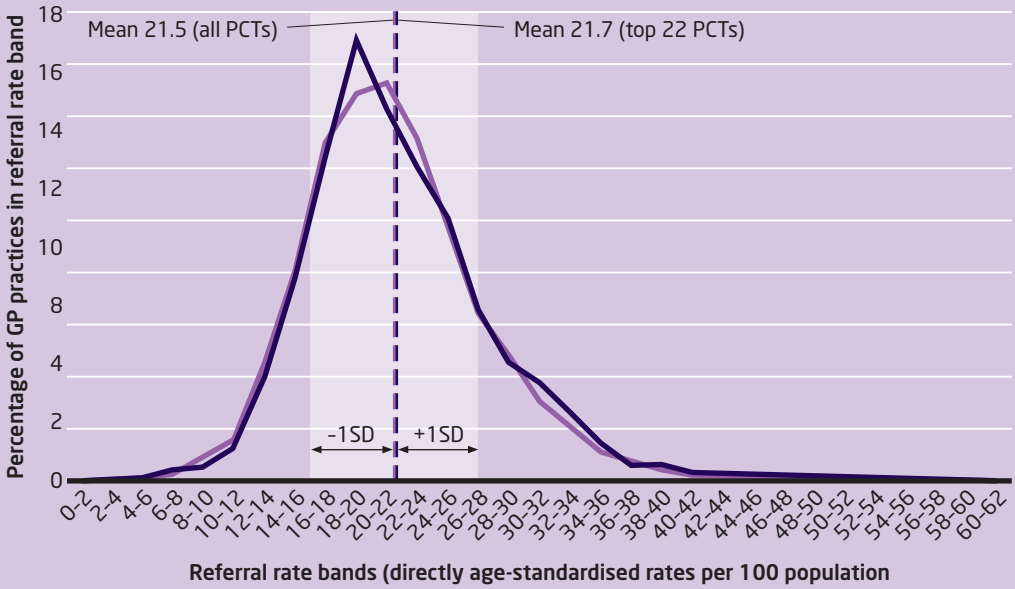
## Variation at GP practice level

There is also wide variation in referral rates between different GP practices. The distribution in Figure 9 shows a near 10-fold variation between the very highest and very lowest referring practices. There is still a twofold variation in referral rates between practices that lie within one standard deviation of the average.

There is no significant difference in the distribution of referral rates at practice level between the PCTs undertaking referral management and all practices.

The analysis shows that the profile of practice level variation within PCTs can be skewed significantly from the normal distribution. Figure 10 shows the variation in standardised referral rates by individual practice in 2008–09 for the four case study PCTs. The colours of the bars, together with the markers, show which national quintile of referral rate the practice falls into. It is interesting to note that of the four sites, site C has had the greatest success in curtailing demand, sits in the 'low rate and contained growth' quadrant of our segmentation analysis, and is distinctive in that the majority of its practices sit in the bottom quintile (that is, have the lowest referral rates). Site B, where the majority of practices are in the top quintile (that is, have the highest referral rates), also sits in the 'high rate and uncontained growth quadrant' of our segmentation analysis.

**Figure 9** Distribution of GP practices by referral rate 2008/9, top 22 PCTs against all practices, national profile and practices in PCTs with referral management schemes



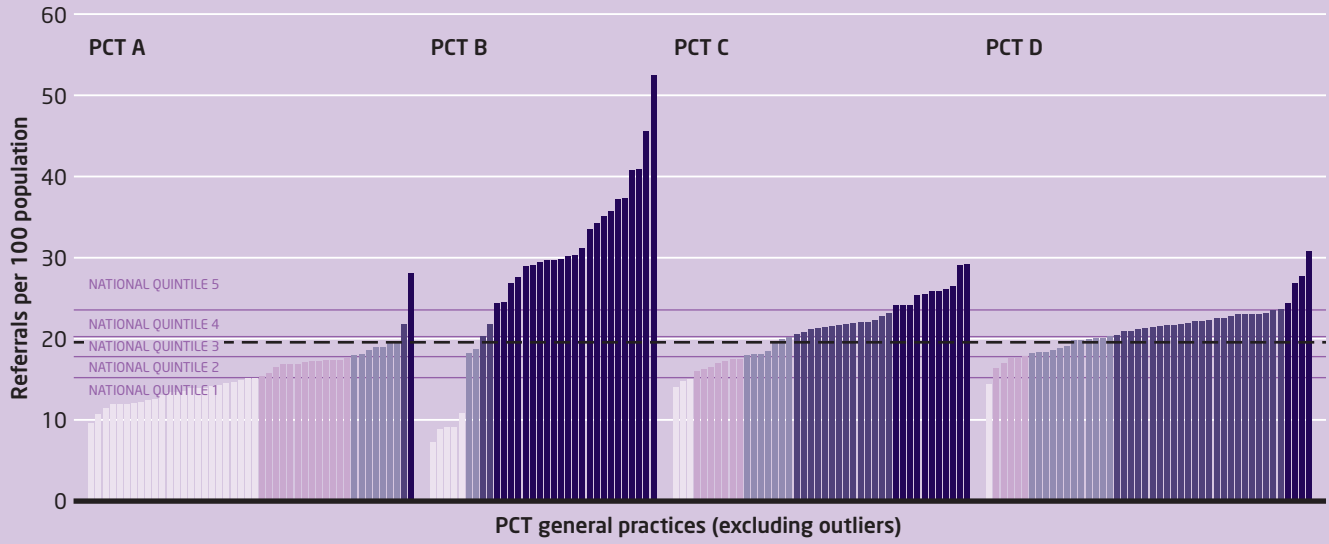

Source: Hospital Episode Statistics data, 2008-09

Note: SD, standard deviation

Top 22 PCTs

All practices

**Figure 10** Variation in referral rates in the four case study sites, by national quintile, 2008/9




Source: Hospital Episode Statistics data, 2008-09

Quintile 5 (highest)

Quintile 4

Quintile 3

Quintile 2

Quintile 1

Mean

## Calculating quintiles

The national quintiles are calculated by taking all practices in England, ranking them by standardised referral rates, and then splitting them equally into five 'tiers', which can be called quintiles. In this case, the lowest tier – quintile 1 – contains the fifth of GP practices in England with the lowest referral rates; the highest tier – quintile 5 – contains the fifth with the highest.

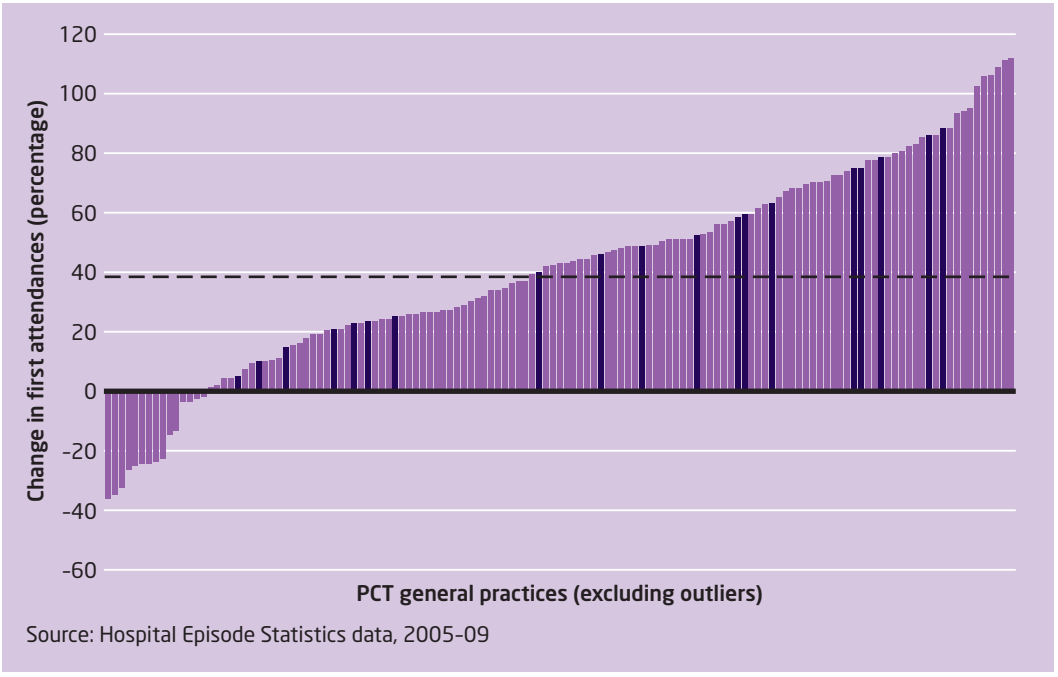
## Changes in volume – consultant-to-consultant referrals

Overall, consultant-to-consultant referral volumes have seen striking growth over the period 2005–09 (Figure 11). However, there is also wide variation within one standard deviation from the mean, where volume changes at PCT level vary from a rise of more than 100 per cent, to a fall of nearly 40 per cent. In this area, the PCTs with active referral management have, on average, seen slightly less growth than the national rate, being 36 per cent and 39 per cent, respectively.

Our research has not investigated why consultant-to-consultant volumes have grown so markedly, although there is some anecdotal evidence to suggest that the introduction of Payment by Results has driven hospitals to record a lot of their internal consultation activity, which had previously gone unrecorded.

Some PCTs now require prior approval by GPs of consultant-to-consultant referrals, and this was true in some of the PCTs interviewed. This would be expected to curtail growth in consultant-to-consultant referrals and could explain the slightly better than average performance in those PCTs interviewed. However, prior approval and reductions in consultant-to-consultant referrals could also result in more GP referrals.

**Figure 11** Percentage change in volume of first attendances referred by consultant to consultant, all PCTs (excluding outliers), 2005–9




Source: Hospital Episode Statistics data, 2005-09

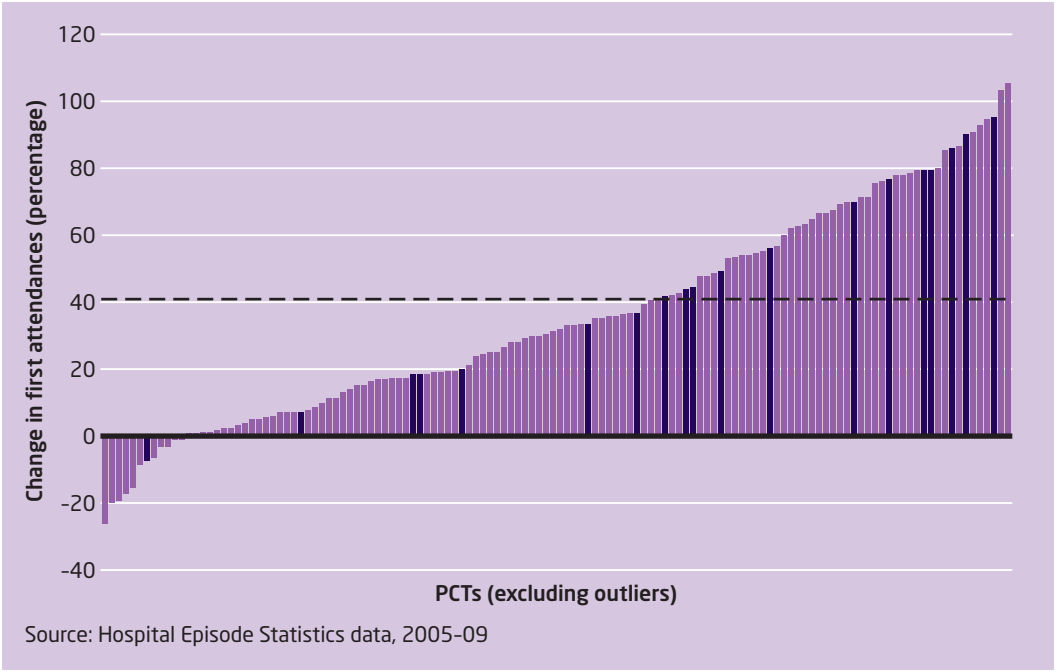
## Changes in volume – referrals from other sources

In this analysis, referrals from other sources are all those to outpatients that do not come via GPs and consultants. This would include referrals from community-based services and the specialist triage services.

PCTs that undertake active referral management might have expected to see a higher than average growth in the other referrals category, as it would capture referrals from new out-of-hospital services. In fact, this was not the case, although the overall growth in volumes – 41 per cent – in this area is striking.

As with the consultant-to-consultant referrals, there was also wide variation at PCT level, even within one standard deviation of the mean, ranging from growth of just over 100 per cent, to a fall of 20 per cent (Figure 12).

**Figure 12** Percentage change in volume of first attendances of referrals to outpatients from other sources, all PCTs (excluding outliers), 2005–9




Source: Hospital Episode Statistics data, 2005–09

## Changes in referral volumes – all referral sources

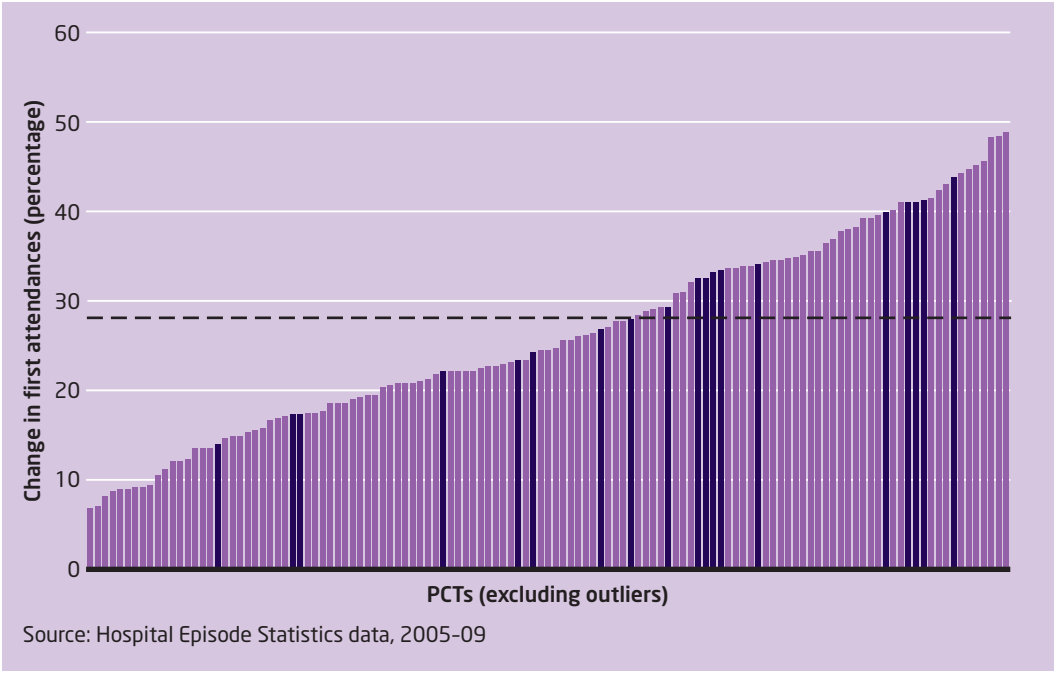
If outliers are excluded, no PCT has achieved overall reductions in first outpatient attendance volumes over the past four years. PCTs with the lowest rates of growth generally had contained growth in all sources of referral (*see* Figure 13 opposite).

## Impact on demand – conclusion

Although 50 per cent of the PCTs interviewed believed that their referral management schemes had managed to curtail demand, the evidence from the quantitative analysis suggests that PCTs with active referral management schemes were no more likely to curtail demand than other PCTs (*see* Figure 14 opposite). One factor is that overall outpatient attendance volumes are driven not only by GP referrals, but also by consultant-to-consultant referrals, and, increasingly, by referrals from other sources. Even if a PCT manages to reduce the rate of GP referrals, these reductions can be negated by growth in activity from the other referral sources. It also suggests that the supply side – hospitals – might play a major part via the supply-induced demand described in Section 2.

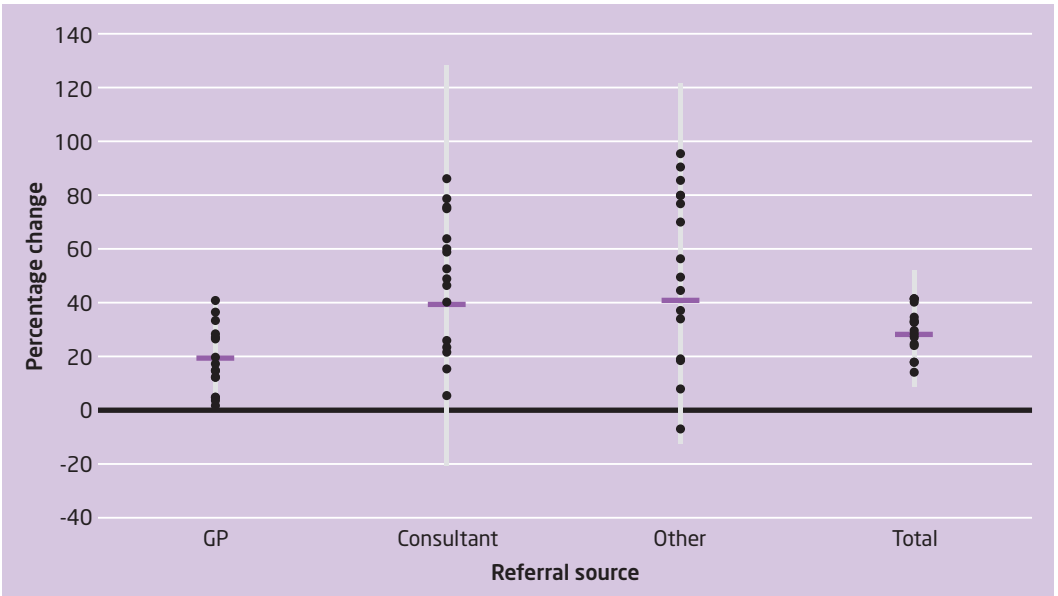
The analysis at practice level indicates that the underlying profile of performance could alter a PCT's capacity to influence demand. This reinforces the conclusion reached at the end of the literature review that local factors must be taken into account when designing quality improvement strategies for GP referrals.

**Figure 13** Percentage changes in volume of total first outpatient attendances, all PCTs (excluding outliers), 2005–9




Source: Hospital Episode Statistics data, 2005–09

**Figure 14** Percentage change in first outpatient attendance volumes by referral source, 2005/6 to 2008/9 against range for all PCTs (excluding outliers), national profile versus interviewed PCTs




Source: Hospital Episode Statistics data, 2005–09

Note: The average percentage change is marked by a purple dash, the range of percentage change is displayed by the silver vertical line, and the percentage change of PCTs with referral management schemes is marked by a black point

# 6 The impact of referral management schemes on other aspects of referral quality and value for money

This section reviews the qualitative research evidence on the impact of referral management on referral destination and process.

The feedback from the scoping interviews (Table 6) was that referral management had been effective at diverting activity to out-of-hospital services, and, in the comparatively small proportion of cases where it had set out to improve the quality of referral letters, it had been effective there too. Referral management schemes had been less effective in providing support to patient choice, with only half the primary care trusts (PCTs) that set out to improve the support of patient choice feeling that they had succeeded in this.

**Table 6** Feedback from scoping interviews (summer 2009): impact of referral management on referral destination and process

| Dimension of quality | PCT ambition (%) | PCT impact (%) |
|---|---|---|
| **Referral destination – diversion:** | | |
| ■ successfully diverted referrals to new out-of-hospital assessment and treatment services | 95 | 95 |
| **Referral process – quality:** | | |
| ■ referral quality improvement, eg, ensuring GP referral letters include all necessary information | 29 | 24 |
| ■ provides support to patient choice | 50 | 24 |

## Referral destination – diversion

Referral management was being used to divert activity away from secondary care by 95 per cent of the PCTs interviewed. There was little hard evidence about the proportion of activity diverted, and it varied by specialty. The referrals that were most commonly being handled by a triage service were those for musculoskeletal conditions, with at least three-quarters of the PCTs interviewed running one. The PCTs said that these services were succeeding in diverting 40–80 per cent of GP referrals from secondary care.

One of the benefits of a multidisciplinary musculoskeletal service – provided that it engages a broad range of disciplines, such as physiotherapists, rheumatologists and orthopaedic surgeons – is that it is more likely that referred patients will be seen by the most appropriate specialist. This is borne out by the evidence cited earlier from the literature review (Maddison *et al* 2004; Rymaszewski *et al* 2005).

As well as diverting activity to new services, a clinical triage of referrals can help patients to reach the right destination within current services. A number of the GPs in the triage group talked about the benefits from their perspective.

> *Sometimes the clinic that the GP thinks the patient needs to be seen in, when you read the letter, is not the right clinic, in fact you change the clinic to get them in a more appropriate clinic.*
>
> (Triage GP, case study site B)

Two of the case study sites identified specific benefits for cancer referrals. One had fast-tracked an extra 343 referrals for urgent cancer assessments in one year.

A potentially unanticipated benefit of clinical triage is the benefits that accrue to those undertaking the clinical triage themselves.

> *Well, I feel as though my knowledge has improved significantly while working as a triager.*
>
> (Triage GP, case study site A)

Several GPs commented about the comparative isolation of working as a GP. One likened it to working in a 'monk's cell'. This not only prevents the type of interaction described above, but also means that many are unaware of how their referral practice compares with that of others.

## Quality of the referral process

Only six (29 per cent) of the PCTs interviewed had aimed to improve the quality of GP referral through referral management, and only five (24 per cent) felt that they had achieved this. Only one, one of our case study sites, had good robust measurements of this impact. The others, including the two other case study sites that believed they had improved the quality of GP referral, relied on anecdotal evidence from local consultants and the clinicians undertaking the triage of referrals.

> *When we first started, some of the referrals were absolutely appalling, dreadful. Two lines, referrals of two lines, please see this patient with headaches, and we automatically rejected all of those and sent remarks saying please write down a proper history, please follow guidelines etc, so from that perspective the standard of referrals has significantly improved.*
>
> (Triage GP, case study site B)

> *I mean, I just couldn't believe my eyes initially, the quality of referrals was just dire from certain… and unfortunately it was often repeated [by] individuals, that is what was so dire, but they've definitely taken on board the feedback and upped their game.*
>
> (Triage GP, case study site B)

In the same PCT, another triage GP felt that not enough had been done to support the GPs who, in his view, were the 'recurring offenders'.

> *There were some [who] thought that those practices that are recurring offenders, if you like, in terms of having lots of rejections, would have some sort of educational input [given] to them, but I don't think that's been developed yet.*
>
> (Triage GP, case study site B)

Case study site A did obtain hard evidence on the quality of GP referral letters, and saw the following improvements in the core information given in them during a period of six months:

- the recording of previous medical history increased from 61 per cent of the time to 81 per cent
- the recording of medication history increased from 65 per cent of the time to 75 per cent

- the recording of blood pressure increased from 36 per cent of the time to 54 per cent
- the recording of body mass index increased from 32 per cent of the time to 48 per cent.

It is quite striking how low the baseline was in a PCT where primary care is perceived to be good.

Many GPs and triage clinicians commented that they thought that knowing that a peer GP would review your referral drove GPs to improve the quality of the referral letter.

> *I think instantly they get a lot better straight away… because you really have the feeling that one of your peers is going to be reading the letter you write.*
>
> (Triage GP, case study site A)

The presence of a triage clinician seemed also to galvanise some to trying to ensure that the referral went where they wanted it to go and not elsewhere.

> *Personally, I think very clearly now about what it is I am referring for… What background information does the triager need to know?*
>
> (Local GP, case study site A)

## Patient choice and experience

Referral management had been seen as a means of supporting patient choice by 52 per cent (11) of the PCTs interviewed, yet only around half of these (5, being 24 per cent of the total) believed that they had achieved this aim. It became very evident through the interviews that although the referral management centres could ensure that patients were offered choices for secondary care options, they were not routinely offered a choice of community-based options other than time of appointment and, on occasion, location. One PCT described how the community-based options were sometimes further away for patients than the hospital as there was often only the one clinic available.

The use of a centre can also create extra steps in the process and be confusing for patients who are unsure about the purpose of the centres. There was a particular concern in one of the case study sites about the ability to get hold of patients. In this PCT, the centre telephoned the patient to make the booking rather than waiting for the patient to call the centre. If the patient cannot be contacted, then the referral is sent back to the GP. We discuss this further under clinical governance and risks (*see* Section 7, pp 36–37).

Despite these difficulties, some of those we interviewed were very positive about the potential benefits to patients of the same referral management centre.

> *Feedback, comments from patients has actually been very, very positive and what [the referral management centre] has also done in terms of free choice and patients accessing secondary care.*
>
> (PCT employee, case study site B)

## Value for money

It was not possible to obtain information that would allow a full value-for-money assessment either of the four case study sites or the other PCTs we interviewed.

The annual cost of running the centre at case study site B is £382,000 (2009/10; source: PCT board report), which equates to an additional cost per referral of £23. The case study site continues to experience high rates of referrals and ongoing growth in the number of referrals despite the introduction of the centre.

We were unable to obtain costs for case study site A, but the number of personnel there (28 triage GPs, 16 patient care advisers and 13 other staff) means that they are likely to be significantly higher than those for site B. Case study site A estimates that potential gross savings (that is, before netting off the costs of the gateway service) for 2009/10 will be in excess of £1 million. The likely costs of running this service suggest that net savings will actually be considerably less. However, it does do more than manage referrals – the costs support other practice-based commissioning activities as well (*see* below).

The PCT for case study site C, which did see a drop in referrals after the introduction of its GP incentive scheme, was not able to determine how much the approach had saved because of the investment made in new out-of-hospital services.

The PCT for case study site D had not assessed the value for money of its earlier attempts at referral management, but had reached the conclusion that they were not a worthwhile investment.

The analysis of the net impact on demand would suggest that, in line with the findings of the Welsh pilots (CRG Research/Cardiff University 2007), investment in full-scale referral management centres that undertake clinical triage of all referrals is unlikely to represent value for money.

The evidence from the literature review also poses questions about the value of some of the clinical triage and assessment services. It was not possible to obtain any further information on specific initiatives, but the overall analysis of referral patterns would suggest that these additional services have not managed to curtail demand for secondary care services, and their value for money must therefore be questioned.

It is important to note that referral management schemes have the potential to do more than divert activity from secondary care. The literature review showed that there are important issues surrounding the quality of the referral process, and the evidence above shows that these can be addressed by active referral management. Value for money should not just consider the benefits of a reduction in referral volumes, but also those of other quality improvements.

## Other areas of impact

Two of the four case study sites had set out to use referral management as a means of generating information to support commissioning, especially practice-based commissioning. One has had great success in this, and the other difficulties. The difference lies in their relative success in capturing good data and information.

> *The good thing about [the referral management scheme] is they're going to have very, very strong data.*
>
> (Local GP, case study site A)

So far the information has been used by the PCT in conjunction with local practice-based commissioners to develop 16 new service redesign proposals.

> *It has been really helpful and useful to have that level of information so that we can target the services where they're needed… It has given us insight that we never had before.*
>
> (PCT employee, case study site A)

In contrast the other case study site had achieved little.

> *The PCT spent and wasted a year trying to design a useful database. The practice-based commissioners have spent a subsequent six and possibly more months arguing*

*the toss about what information they need in order to redesign services and pathways, what the data looks like, where it's going to come from, what they're going to do with it. So information coming from [the referral management centre] is very, very poor, relies heavily on Choose and Book, which as I have said, is almost useless in terms of producing decent information and hasn't moved notably forward since [the clinical assessment service] started. A real missed opportunity.*

(PCT employee, case study site B)

The final area that a number of respondents, particularly GPs and consultants, commented on was the impact of referral management on the relationship between GPs and consultants. There were mixed views. It was clear that many conflated Choose and Book with referral management, and that referral management was, for some, just one of many things perceived to be 'driving a wedge' between primary and secondary care. A total of 22 of the GPs and consultants interviewed said that they felt that relationships between consultants and GPs were not as good as they had been, and that referral management had played a part in that. One GP described referral management 'as the nail in the coffin', and another felt that consultants feel threatened by referral management. The other factors that doctors identified included:

- not being able to refer to a named consultant (often a consequence of the way the directory of services was set up on Choose and Book)
- a lack of trust between consultants and GPs; one consultant described being 'battered, it's all done to try and reduce the power of the consultants' (consultant, case study site A)
- problems they saw as being caused by the new GP contract and practice-based commissioning: 'I think that there is much less direct communication now between secondary care doctors and primary care doctors, and I think it's a terrible loss for patients, and I think this whole idea of competing with each other to provide services is a very bad development' (GP, case study site B)
- growing complexity of services and size of hospitals.

Where referral management was perceived to improve the quality of referral, it was seen as a driver of improved relationships.

*Well, I think it's a better quality referral so often you get letters saying thank you for all the care you have done or thank you for the tests you've organised so I think probably it's a bit better.*

(GP, case study site B)

A number of the GPs working in the clinical assessment and triage services had enjoyed better relationships through working alongside consultants in the new services.

*I think it has improved things. I'm thinking about one community clinic that I have been working with. We have a users' group which means we now work and have periodic education meetings with one of the local endocrinologists and the practice nurses and GPs, and that's been a spin-off from setting up a local clinic.*

(Triaging GP, case study site B)

## Conclusion

This research has shown that referral management schemes can successfully divert activity away from secondary care. This is not the same as ensuring referrals reach the right destination, though active referral management can also achieve this. Referral management can also improve the quality of the referral letter. With appropriate investment in systems and data capture, referral management centres can generate valuable information for practice-based commissioning and tip the balance towards services that are demand- rather than supply-led, although this has not been the universal experience.

The research provides less positive messages about value for money, patient choice and the impact on the relationships between primary and secondary care clinicians. In common with the findings of the Welsh referral pilots (CRG Research/Cardiff University 2007), it seems unlikely that the clinical triage of all referrals through a referral management centre would be cost-effective, even if a substantial number of referrals were diverted. New out-of-hospital services might also be supplementing rather than substituting for hospital-based care.

Finally, some of the GPs interviewed were passionate in their view that referral management stood in the way of the necessary close working between GPs and their consultant colleagues in secondary care.

# 7 Implementation: issues and challenges

Referral management services create a number of implementation and governance challenges for primary care trusts (PCTs). This section explores some of these. It covers:

- clinical governance and risks
- conflicts of interest
- clinical engagement
- whether to adopt a targeted or comprehensive approach
- the use of blanket referral targets.

The section begins by considering some of the issues and risks of clinical governance, an area where, the research suggests, PCTs are perhaps prone to underestimating the risks. Conflict of interest issues are also considered.

Finally, we turn to clinical engagement and scope. What challenges have PCTs had with clinical engagement, and should referral management be mandatory? Should referral management centres be targeted towards specific specialties or be comprehensive?

## Clinical governance and risks

It was notable that few of those interviewed from the 21 PCTs studied were able to articulate clearly the governance processes they had in place for their referral management and triage services. The PCTs appeared to rely on clinicians to manage the risk as part of their own clinical governance, and often referred to the governance arrangements in place to oversee the practice of general practitioners (GPs) with a special interest rather than anything specific to the triage process.

All respondents in the case study sites were asked whether they perceived there to be any clinical risks in the local adoption of referral management. It was striking how different the responses were, particularly for the two referral management centres. The GP-led service had very robust governance, and respondents raised few concerns about risk. The PCT-led service had very weak governance, and a good many concerns were raised. Some of the most important risks highlighted from the case study interviews are described below.

A number of respondents commented on the danger of conducting clinical triage in the absence of the patient and full clinical information.

> *As a triager sitting in an office not actually knowing the patient, basing decisions solely on the letter, yes sooner or later somebody is going to end up not seeing the right person or seeing the right person later than they would otherwise have done.*
>
> (Triage GP, case study site A)

There is an inherent risk if one generalist is reviewing the practice of another, as the reviewer may not be any more skilled at referring than the person whose work is under review, indeed could be less skilled. There is also a risk that the triage process adds an additional layer of variation on top of the underlying variability in GP referrals if the assessors work independently and there is no governance or review of their practice. This risk could be magnified given that these GPs are also conducting the review in the absence of full clinical information, as highlighted above.

> *Some assessors were very keen on rejections and some did very few. Some did so few one had to question their ability to do the job... It gets back to individuals making decisions on other people's decisions.*
>
> (Triage GP, case study B)

However, the clinical leaders of the referral management service in case study site A would argue that they manage this risk and add value by:

- more systematic use of clinical pathways
- the knowledge they acquire through the role of clinical triager
- the peer support available when undertaking the triage.

The key governance element necessary in a referral management centre is a robust tracking system, as without this patients can get lost during the process, something that seemed to be a major issue in case study site B. It also put GPs in a potentially risky position as the referral management centre said clinical responsibility remained with GPs until the referral reached its destination, yet GPs had no means of keeping track of the progress of referrals through the centre and beyond.

> *Something in the order of 30 per cent of patients, possibly 35 per cent, are not able to be contacted by [the referral management centre] by telephone… It has been much more difficult to get hold of patients than you would expect and I think that's partly due to the fact that [this area] is just difficult. It's got a high turnover, lots of addresses are wrong, phone numbers are wrong.*
>
> (PCT employee, case study site B)

Finally, the risks inherent in services being delivered by a small number of staff without any back-up cover in place were brought out in one site.

> *Sometimes when I go on holiday there's nobody else who does this at the moment for the PCT… and then obviously there's a bit of danger in that they can be undiagnosed for some time.*
>
> (Specialist nurse, case study site C)

## Conflicts of interest

At the seminar held during the scoping stage of this research, participants raised the potential conflict of interest that referral management schemes could create between clinical decision-making and financial interests. In general, respondents perceived referral management centres as not very different from the position of GPs within practice-based commissioning.

There was more concern about the conflicts of interest that arose when GPs conduct triage or provide out-of-hospital services and were therefore able to refer to themselves or members of their practice. As well as GPs having the potential to gain financial reward

from this position, there was also the possibility of distorting clinical pathways, such as offering minor surgery for a condition that might best be managed through conservative non-invasive treatment.

The PCT in case study site B was also perceived to have created an inherent conflict of interest in one community-based service by imposing a financial penalty if referrals to secondary care exceeded a target rate.

## Clinical engagement

It is self-evident that any approach to referral management should have strong clinical engagement.

> *I think it works best when it is clinically-led. I think when it is introduced by management with the sole purpose of trying to reduce referral numbers it doesn't work. It has to be done as a process that is going to improve patient quality and outcome.*
>
> (Triage GP, case study site B)

Supporting clinical leadership and letting go of control can be challenging for PCTs, and the PCT in case study site A, where control was fully given over to the GPs, commented on how hard this had been for them. A clear focus on quality was an important way of generating clinical support. Several respondents saw comparisons between referral and prescribing practice, and felt there were lessons to be learnt from the approaches taken by PCTs to improve prescribing practice.

> *When you go for quality often you actually improve [the] cost-effectiveness of what you're doing and actually GPs and other clinicians buy in for quality.*
>
> (GP, case study site B)

Respondents were less clear about whether any approach should be voluntary or mandatory. Although some were adamant that a mandatory approach would be doomed to fail, others noted that the voluntary approach currently adopted in case study site B meant that the 'worst offenders' were not subject to scrutiny. It also means that the referral management service is unable to collect a comprehensive set of data. A middle way was seen to be the use of incentives to drive engagement.

> *The middle road… is bringing in some incentives, so if you have a mix of peer pressure, some start-up financial incentives, and then bring in incentives of feedback of data.*
>
> (GP, case study site B)

## A condition-specific or comprehensive approach?

There was no consensus on whether a comprehensive or more targeted approach to referral management is best. A targeted approach can ensure referral management activity is carried out where it is most needed, and this could be more cost-effective. One respondent in case study site B felt that they may have had more success if they had targeted a number of specialty areas initially.

> *I think the benefits of targeting a number of specialty areas are that you're able to build up expertise… in terms of clinical guidelines, but also in terms of the sort of operational guidelines, able to identify where the services are, where the clinics are, where the consultants are.*
>
> (PCT employee, case study site B)

## Use of referral targets

There was general antipathy towards the use of blanket targets for referral reduction, echoing the negative feedback from GPs in the case study sites that had already experienced this. It is a view that is also supported by the evidence from the literature review, which suggests that a blanket reduction in referrals is not clinically appropriate.

> *My plea would be not to set arbitrary targets. I would be more than happy for anybody to audit or make comments on personal referral so that they improve.*
>
> (Local GP, case study site D)

> *I think setting a rigid ceiling for reduction, you have got to achieve 15 per cent reductions in this, and this and this pathway just won't do it. We've got to do it [to the] whole system.*
>
> (Local GP, case study site C)

# 8 Discussion and conclusions

Commissioners are about to enter into a cold, potentially arctic, financial climate (Appleby *et al* 2009), which poses a major collective challenge to the National Health Service (NHS). As one respondent put it:

> *The challenge is the economic tsunami and I think there needs to be greater engagement of referrers and providers in driving up quality, looking at service redesign and then utilising that redesigned service based on outcomes.*
>
> (Local GP, case study site D)

The new coalition government hopes that putting GPs at the centre of commissioning will lead to their active engagement. What can our research teach GPs and primary care trusts (PCTs) about the best approach to adopt if they are to engage in active referral management?

## Why referral management?

> *Why are referral management centres needed?… I think we're looking at this through the wrong lens because we are not going back and doing a root cause analysis and I think that the reason they're needed is because data capture and information within the NHS is appalling and geared to all the wrong reasons. The problem is that we're saying the behaviour of clinicians does not meet the standards that are required so we'll impose a bureaucracy, another tier… What would help change clinician's behaviour… would be a proper feedback loop from consultants.*
>
> (PCT employee, case study site D)

This comment encapsulates many of the key issues uncovered during this work on referral management. The need for improved information and audit was a major theme. A considerable number of interviewees highlighted the current information gaps, which are exacerbated by the fact that the range of services available is in constant flux. There is a particular lack of information about the community services and non-health sector options that are available.

There is also a bona fide concern about GP referral behaviour. There is evidence in the research literature, confirmed by our research, that some referrals are inappropriate, subject to delay, and poor quality with respect to the way in which clinical information is passed from GP to consultant. The degree of variation, and some of the evidence of the late diagnosis of cancer, also suggest that under-referral may be as much of an issue as over-referral. Missed or late referral can prolong suffering and worsen outcomes. Any referral management approach should aim to uncover missed referrals as well as stop inappropriate ones.

Yet the context in which referral management is frequently introduced is one of financial constraint, and the focus tends to be on managing demand rather than improving quality. Given the future financial prospects for the NHS, this presents a real risk to safe clinical care if unchecked. This does not mean that referral behaviour itself should be unchecked. The process of referral is increasingly complex and difficult. Successfully

balancing the GP's perception of need with that of the patient, plus balancing the benefits of providing reassurance to individual patients against the need to maintain cost-effectiveness at the wider level, requires active support, especially given the comparative isolation of current general practice. The challenge for the system is to discover what the best and most cost-effective way to provide that support might be.

## Is one approach better than another?

The review of the available evidence and the findings of our research show that all forms of referral management have their strengths and weaknesses (Table 7).

**Table 7** Strengths and weaknesses of different referral management approaches

| Approach | Strengths | Weaknesses |
|---|---|---|
| **Referral management centres** | ■ Can filter out inappropriate referrals<br>■ Can direct referrals to the most appropriate setting<br>■ Can help to fast-track diagnosis of possible cancer<br>■ Can improve the quality of referral letters<br>■ Can develop a body of expertise and guidance about local services<br>■ Can provide evidence to support commissioning decisions | ■ Might increase overall costs<br>■ Might demotivate local GPs<br>■ Might misdirect referrals (in the absence of full clinical information)<br>■ Might create a barrier to closer working between GPs and consultants<br>■ Might delay or lose referrals (in the absence of robust governance) |
| **Clinical triage and assessment** | ■ Can direct referrals to most appropriate setting<br>■ Can make services more accessible | ■ Might increase overall costs<br>■ Might misdirect referrals (in the absence of full clinical information)<br>■ Can delay access to a specialist |
| **Peer review and feedback** | ■ Can increase the likelihood of GPs referring when necessary<br>■ Can improve the quality of referral letters<br>■ Can increase the likelihood of GPs directing referrals to the most appropriate setting | ■ Might not always be effective in changing GP behaviour |
| **Financial incentives** | ■ Can change GP referral behaviour | ■ Might reduce appropriate referrals as well as inappropriate ones<br>■ Creates a conflict of interest for the GP |
| **Guidelines** (in combination with other support, such as structured referral sheets) | ■ Can increase the likelihood of GPs referring when necessary<br>■ Can improve the quality of referral letters<br>■ Can increase the likelihood of GPs directing referrals to the most appropriate setting | ■ Might not always be effective at changing behaviour |
| **Passive use of guidelines** | | ■ Evidence suggests it is not effective at changing GP behaviour |

## Making referral management effective

A poorly formulated referral management strategy could create both clinical and financial risks. As an additional tier of bureaucracy, the referral management centre not only generates substantial additional costs, but can also introduce a new set of clinical risks.

Referral management has the capacity both to reduce and exacerbate the clinical risk inherent at the point of referral, when clinical responsibility is handed from the GP to the consultant, the so-called clinical hand-off. Our research suggests that commissioners

may not be as aware as they should be of these risks, particularly those of undertaking clinical triage in the absence of the patient and with limited information on both the presenting problem and the clinical history.

Any referral management approach must protect the safe transfer of full clinical information and clinical responsibility. However, if properly managed, referral management centres can help to address some of the current information deficits. The collective challenge is to address the information deficit without creating the additional tier of bureaucracy and associated costs.

A common theme in the literature is the need for improved feedback loops in the referral processes. Feedback from consultants on the necessity of referrals, referral letter content or expectations of pre-referral management is often welcomed by GPs, and provides an effective educational tool to improve referral quality. Greater use of new technologies could also be an important enabler. For example, GPs' capacity to refer appropriately would be greatly strengthened by access to decision-support tools, up-to-date information on local services, regular feedback from audit of their referral activity, and opportunities to communicate with other clinical professionals, including consultants, via email and telephone. Even with this support, some GPs do need to change their behaviour, which will not be easy.

The analysis of referral rates at practice level also suggests that some areas might have a much greater change-management challenge than others. Financial incentives are effective at changing GP behaviour, but there are also risks in the use of blanket financial incentives to reduce referrals, which can reduce appropriate referrals as well as inappropriate ones. This is borne out by the research evidence, but was also highlighted by respondents at our case study sites. The British Medical Association (2009) has issued guidance to its members saying that the use of such incentives is 'unacceptable'. Of course, if commissioning is led by GPs, it is much less likely that such measures would be introduced.

Finally, if referral management is to be part of a commissioner demand-management strategy, it needs to look at all sources of referral, as reductions in activity from one referral source can be negated by rises in referrals from others. It is not clear from this analysis whether the inability of referral management to stem overall outpatient activity has been the result of supply-induced demand, the space left by the reductions in GP referrals resulting in more activity being sucked in from elsewhere, the consequence of tariffs and the drive in secondary care to count activity more accurately, or the consequence of waiting lists being driven down at the same time. The evaluation of the Welsh referral management pilots showed that 'while all pilots were successful to some extent in managing demand from primary care they were less successful in changing what secondary providers chose to supply' (CRG Research/Cardiff University 2007, p 43).

It is evident that demand for secondary care cannot be controlled through primary care referral mechanisms alone, a finding that resonates with the experience of the health maintenance organisations in the United States (Ham 2010). Any commissioner interested in controlling the volume of activity in secondary care needs to consider all referral routes and not target just one. In addition, a range of incentives and controls is needed across primary and secondary care. This underlines the need for a whole-systems strategy to manage demand, with active collaboration between primary, secondary and community care services.

## Conclusions and recommendations

Many different non-clinical factors play a part in referral practice, which suggests that a substantial proportion of referral activity could be classed as discretionary or avoidable. However, any intervention to manage referrals cannot look at the referral in isolation, but needs to understand the context in which the referral is being made. Patients with identical conditions may be appropriately managed by one GP but referred by another, if the GP who makes the referral does not have the skills and supporting infrastructure to manage the patient safely.

A referral management strategy built around peer review and audit, supported by consultant feedback, with clear referral criteria and evidence-based guidelines is likely to be the most cost- and clinically-effective. The greater the degree of intervention, the greater the likelihood that the referral management approach will not present value for money. New and old technologies present important opportunities to increase the decision-making support available to GPs in their practice.

The use of financial incentives can be effective, but if used to drive blanket reductions in referral rates there are risks that necessary as well as unnecessary referrals will be reduced. Practice-based commissioning clusters, or their successors if the coalition government's plans to give GPs real budgets come to fruition, are the obvious conduit and driver for peer review and audit, which has the advantage of any referral management process being clinically-led and informed.

As points of principle, commissioners need to recognise the following key points.

- Any intervention to manage referrals cannot look at the referral in isolation, but must understand the context in which the referral is being made.
- Changing referral behaviour is a major change-management task that will require strong clinical leadership from both primary and secondary care.
- There are inherent risks at the point when clinical responsibility is handed from one clinician to another, so-called clinical hand-offs, and any referral management strategy needs to offer a robust means of managing those risks.
- There is likely to be under-referral as well as over-referral by local GPs. Any strategy to reduce over-referral could, and indeed should, also expose under-referral, which will limit the potential for reducing demand.
- Commissioners should not introduce financial incentives to drive blanket reductions in referral numbers.
- Reductions in referrals from one source can be negated by rises in referrals from other sources. Any demand-management strategy needs to consider all referral routes rather than target just one.
- A whole-systems strategy will be required to manage demand, with active collaboration between primary, secondary and community care services.

Finally, it is evident that not only is there considerable variation in referral practice within areas, and within practices, but also between areas and between practices. Understanding this variation, and benchmarking performance locally and nationally, will be critical for any GP commissioning group in the financially constrained time ahead. Below we list some of the initiatives that could help them to achieve this.

## Specific opportunities for PCTs and GP commissioners to drive improvement

- **Referral pathways:**
  - a greater focus on reducing procedures of limited clinical value
  - a review of clinical pathways to highlight evidence that supports alternative and less invasive treatments
  - collect more robust information on patient needs and use this to redefine patient pathways.
- **Support for GPs:**
  - improve the information that is collected and fed back to GPs, for example, showing comparative referral rates by specialty
  - create a website, accessible on the GP computer system, that provides access to up-to-date guidance, protocols and guidelines
  - develop the opportunities for increased access to informal specialist advice to avoid the need for referral, for example, telephone helplines or an email advice facility
  - develop a more structured approach to mentoring, supporting and feeding back to practices about referrals, and base this on more structured quality markers
  - provide educational peer support roles, possibly working with geographical areas or groups of practices
  - encourage and support GPs to make sure all appropriate investigations have been done before the first outpatient appointment
  - more targeted interventions with poorly performing practices.
- **Support and development of clinical triage:**
  - create greater consistency in the way that clinical triage works, making greater use of guidelines.
- **Support for patients:**
  - if referrals are to be managed through a central facility, ensure easy access by telephone for patients, with extended opening hours and a rapid response to calls
  - ensure there is adequate support for people whose first language is not English
  - allow patients to track the progress of their referral via the internet.

# Appendix A: Methods

The following four research questions were addressed through a mixture of qualitative and quantitative methods.

1. Can referral management schemes control demand and reduce unnecessary referrals?
2. Can referral management schemes improve the other dimensions of referral quality – destination and process?
3. What are the financial implications of referral management?
4. What are the other risks and consequences of introducing referral management, and how might these be overcome?

There were four elements to the research.

- **Literature review**
  A review of the available evidence on referral quality and the impact of referral management.
  Research questions addressed: 1–4.
- **Qualitative research, phase 1**
  Semi-structured interviews, with 21 of the primary care trusts (PCTs) known to be most actively engaged in referral management, in order to understand the different approaches PCTs are taking to referral management and gauge at a high level its perceived impact.
  Research questions addressed: 1–4.
- **Qualitative research, phase 2**
  Four case studies looked in depth at four different approaches to referral management. These provided a deeper understanding of the impact of referral management in a health economy, including some of the risks.
  Research questions addressed: 1–4.
- **Quantitative analysis**
  Analysis of four years of outpatient data to compare the performance of PCTs that had actively engaged in referral management with those that had not, in order to assess the impact of referral management on demand. The PCTs that had seen the least referral growth were also investigated to see whether there were any common features.
  Research questions addressed: 1.

## Literature review

Two literature searches were conducted using three bibliographic databases:

- PubMed
- Health Management Information Consortium (HMIC)
- Applied Social Science Index and Abstractions (ASSIA).

The first search was conducted as part of The King's Fund inquiry into the quality of general practice in England, and focused on evidence relating to the quality of general practitioner (GP) referral and improvement techniques (Foot *et al* 2010).

The second focused more narrowly on referral management centres and their impact.

**Search terms used in literature review (variants also included)**

**Search one: quality of GP referral**

GP/primary care/general practice

Referral AND quality

Referral AND 'patient experience'

Quality/appropriateness/timeliness/suitability/necessity of referral

Referral quality/appropriateness/timeliness/suitability

Inappropriate/late/unsuitable/unnecessary referral

Delay in referral

Variation in referral rate

**Search two: referral management**

Referral management

Demand management

The articles identified by searching bibliographic databases were screened for relevance in two stages: first by reviewing titles and abstracts, and second by reviewing articles in full. Those accepted as relevant were supplemented with other articles identified manually, including a number of articles recommended by experts in the field. In total, more than 250 articles were included in the review. A data extraction framework was used to capture the content of these articles systematically.

## Qualitative research, phase 1

PCTs that have active referral management services were identified using Choose and Book information provided by the Department of Health, which gives the percentage of Choose and Book referrals for each PCT that went to a clinical triage or assessment service rather than directly to secondary care. All PCTs were then ranked by the percentage of referrals going to a triage or assessment service.

Directors of commissioning, or their equivalent, from 21 of the top 25 PCTs were interviewed. Four of the 25 PCTs declined to participate.

All those that had been interviewed were invited to a seminar to discuss early findings and consider the key issues and challenges presented by referral management services. A total of 10 PCTs and two expert advisers attended the seminar. The themes that emerged from this discussion then influenced the topics for the semi-structured interviews in the case study sites.

## Qualitative research, phase 2

The four case study sites were selected from the 10 PCTs that had attended the seminar. The case studies were chosen to ensure that a range of different approaches was covered as well as PCTs from a range of contexts. Two sites with the highest rates of referral management were specifically targeted. One PCT was included that had had a range of referral management approaches and had since decided to abandon them. It was thought that their stakeholder views would present an interesting juxtaposition to those of the other sites.

The four PCTs finally chosen thus offered:

- a variety of contexts:
  - urban with rural surroundings
  - major urban conurbation
  - edge of major conurbation
  - rural
- a variety of approaches:
  - two with referral management centres (one GP-managed, one PCT-managed)
  - one used GP contract incentives (locally-enhanced service payments under the General Medical Services contract)
  - one now using tier-two service development but has abandoned referral management centres.

In addition, two of the four case study sites were drawn from the 3 per cent of PCTs that were undertaking triage/assessment on more than 51 per cent of referrals.

All interviews were analysed using NViVO and coded using a structured thematic framework based on our research questions as well as key themes identified through a preliminary reading of all transcripts.

## Quantitative analysis

### Data sources and quality

GP referral activity is not measured at source (other than when GPs use Choose and Book). Given that Choose and Book activity is not yet comprehensive, the most reliable means of gaining information on overall referral activity nationally, by PCT and at practice level, is from Hospital Episode Statistics (HES) data, as the source of referral is coded on hospital outpatient attendances. Outpatient data was therefore used to understand trends in:

- GP referral activity
- consultant-to-consultant referrals
- referrals from other sources.

Despite being more robust than Choose and Book data, there were some data quality issues with the HES outpatient data, for example, the changes in referral volumes year-on-year for some PCTs had variances of 200–500 per cent.

PCTs were excluded from PCT-level analysis when the percentage change in referral volumes was in excess of one standard deviation of the mean, taking this to capture all

variation within a normal range. Overall, there were 58 PCTs with anomalous results. The impact on the individual analyses is as follows:

- GP referral volume variation by PCT: 27 excluded
- consultant-to-consultant volume variation by PCT: 26 excluded
- other referral volume variation by PCT: 22 excluded.

## Time periods

Four years of HES data were used – 2005/6, 2006/7, 2007/8 and 2008/9 – to provide both the most up-to-date picture and the trend over the past four years.

We had the option of using the referral date or the attendance date for analysing the data for both measures over time. The attendance date rather than referral date was used for the time series in order to secure greater data completeness.

## Calculating standardised referral rates

Referral rates were standardised by age and sex at PCT and GP practice level. The referral rate was calculated by standardising the attendances by age and sex, and then converted into a rate of attendance per 100 of the standardised population. Referral volumes were not standardised, however.

# Appendix B: Summary of case study sites

## Case study site A: urban with rural surroundings

The service was established in 2008 as a gateway management service for elective referrals. It serves three purposes:

- the management of all elective referrals (with the exception of cancer referrals under the two-week wait rule, rapid access referrals, mental health and maternity)
- to support patient choice and Choose and Book
- to support the development and implementation of service specification for new care pathways.

### Referral pathway

With the exception of one practice, local general practitioners (GPs) direct all eligible referrals to the gateway management service, 99 per cent of which are sent in electronically via Choose and Book. Once the referral is received, it is logged and passed to the clinical triage GPs, who work in pairs to locally agreed pathways and protocols.

The gateway management service has supported the development of local pathways using Map of Medicine. The gateway management service has also developed its own database to capture key information about referrals, such as patient demographics, clinical specialty, presenting condition or diagnosis, and treatment options. This enables it to assess and quantify the local needs of patients and GPs, and helps inform pathway development and commissioning priorities to cater for the needs of specific groups of patients, allowing condition-specific service redesign, which was not possible when using hospital outcome data.

The triage GPs first check whether the referral is urgent and should be referred under the two-week rule or to a rapid access clinic. The triage GPs also check the referrals for completeness (key patient and clinical information) and appropriateness. Missing information is sought from the referring practice. Referrals can be returned to the referring practice if they contain insufficient information or are incompatible with local or national guidance pathways.

Within three days of the gateway management service receiving the referral, a patient care adviser (non-clinical staff) will have called the patient to discuss the choices available and arrange an appointment through Choose and Book. All patients are offered a choice of at least six alternative providers.

### Governance

The gateway management service is a not-for-profit organisation owned by local practices and employees. All GPs, practice nurses and practice managers in the area are eligible to become shareholders. An individual can hold only one share, which costs £1.

The gateway management service has two clinical directors, both GPs, and an operational director, who is a manager. There are also three non-executive directors – local GPs elected by each of the three practice-based commissioning localities in the city.

The executive and non-executive directors together form the board of the company, and are responsible to the shareholders, of which there are more than 200.

The day-to-day running of the organisation is delegated to the executive team, which has a shared leadership role for the entire company. There is a small management team to support the delivery of the organisation's objectives. The gateway referral management function is one part of business, with the others being service redesign, clinical service provision and corporate functions.

## Case study site B: major urban conurbation

This primary care trust (PCT) runs a referral management service, which undertakes clinical triage of all GP Choose and Book referrals to secondary care services, and provides a booking service for patients. The service does not triage mental health, community or maternity referrals.

Set up by a local practice-based commissioning consortium, the service began as a pilot in January 2007, with the consortium retaining operational responsibility until March 2008, when management responsibility was transferred to the PCT.

The service currently receives referrals from 36 out of 42 GP practices in the PCT area. Referrals are assessed by local GPs employed on a sessional basis by the PCT, which is in the process of employing a lead assessor to ensure the quality of the assessors and to support relevant training and development of local GPs. The PCT also employs a manager and five whole-time equivalent staff to run the booking service.

### Referral pathway

When a GP decides a referral is necessary, he or she enters the referral details into Choose and Book. A provider will not be selected for a particular patient, but a preference can be stated within the referral. Every day, the GP practice will notify the referral management service of the referrals made the previous day. The referral management service can then access those referrals and the supporting information via Choose and Book.

The referral is reviewed by the GP assessors, who then either accept or reject it. Rejected referrals are returned to the practice with an explanation of the reasons why. If a referral is accepted, the assessor will select a number of hospitals/clinics that he or she believes to be suitable, taking account of any preferences stated.

Accepted referrals then go to the appointments booking team, which contacts the patients, discusses the referral options, agrees the hospital of choice, and then, using Choose and Book, attempts to book an appointment at the preferred hospital while the patients are on the telephone. This is then followed up in writing with documents that include the passwords and booking references they need for Choose and Book in the event that they later wish to cancel or change an appointment.

The booking team attempts to contact patients by telephone on up to three occasions over a period of two weeks. If a patient cannot be contacted by telephone, a letter is sent to the patient asking him or her to contact the referral management service to book an appointment. If the patient does not contact the referral management service within a further week, the referral is scrapped from the system.

## Case study site C: edge of major conurbation

In 2004, a referral governance programme was initiated at this site. As a first step, the PCT analysed local GP referral patterns including age/sex standardised referral rates. The analysis showed that:

- 10 specialties accounted for more than 80 per cent of referrals
- seven practices were significant outliers (high referrers)
- 10 practices were significant outliers (low referrers)
- the substantial majority of referrals was to one unit.

The governance programme subsequently developed included the following features.

- The introduction of a locally-enhanced service (LES) payment for GPs to improve referral practice across a number of domains, including executing referral decisions within 48 hours and the use of minimum data sets for referrals.
- Each GP practice receiving an indicative slot allocation (using a fair share formula) for each hospital outpatient service, which was then matched to actual activity and fed back to the practice. This was used only for tracking activity, and there were no penalties for not keeping within the allocation.
- Each practice receiving a range of benchmarking information about referral activity each month as part of its practice-based commissioning pack.
- The use of referral advisers to work with commissioning groups at locality level.

The requirements for the LES payment have evolved over time, so that objectives that have become part of normal practice are taken out and replaced with others that the PCT wishes to become normal practice in the future. For example, it has recently introduced using Map of Medicine and low-priority procedures as part of the LES payment.

There are also some objectives, such as conducting peer review audits, that were not closely followed up initially, but now have more robust monitoring mechanisms, coming under the auspices of the main practice-based commissioning consortium.

Historically, within the PCT and across the strategic health authority, a broad range of tier-two and clinical assessment and treatment services (CATS) also developed. These cover a range of routine health conditions, including rheumatology, musculoskeletal problems, urology, ophthalmology and mental health. Some services have evolved from tier-two to CATS. For example, the musculoskeletal service evolved from a rheumatology-based service delivered by GPs with a special interest (GPwSIs) and a nurse consultant, to a service with a full multidisciplinary team including consultants. It now encompasses orthopaedics and chronic pain as well, and supplies the complete non-admitted patient pathway, plus long-term follow-up in rheumatology. As a result, patients are cared for in the community, going to hospital only if they need facilities or treatment only available there. It is possible that the tier-two or CAT service will be further away for some patients than the local hospital service, although all community-based redesigned services have a central ethos of multisite locality-based provision.

The use of Choose and Book by local GPs is incentivised by a separate LES payment, and supported by a referral centre that undertakes the booking of patients into secondary care or the community-based clinical assessment services. The suitability of patients for the community-based services is decided on by the relevant nurse specialists or GPwSIs who undertake the triage of GP referral letters in the period between the referral being made and the patient contacting the referral centre.

Patients leave the GP surgery with a number and password, and must telephone the referral centre seven days later, when they are advised about the choices available and might be able to book the appointment there and then. Patients need to telephone another number to book into a service only where the CAT service needs to undertake triage in advance of the clinical booking in order to sort the case into the correct clinical caseload.

If a patient has not contacted the referral centre within 14 days, the referring GP is sent a letter to this effect and the referral is cancelled. The PCT has arrangements in place to monitor onward referral from CAT to acute services, and subsequent surgical conversion rates.

## Case study site D: rural

Prior to the formation of the current PCT, a number of different referral management schemes were in use across the area as each of the three constituent PCTs had taken different approaches. One PCT had a referral management centre that acted as a triage point for all referrals, one PCT has set up a couple of clinical assessment services to perform triage on referrals for specific specialties, and one PCT had several different clinical assessment services. The majority of these services were not clinically-led and could not be booked electronically under Choose and Book. The triage of referrals was frequently undertaken by administrators rather than GPs, GPwSIs or advanced practitioners. The perception, fed back by interviewees, was that the triage services added considerably to delay and confusion during the referral process, and added little of clinical value.

When the new PCT was formed, it was decided to get rid of the extant referral management centre and many of the clinical assessment services. The PCT still supports Choose and Book via dedicated centre, but now sees its practice-based commissioning clusters as the lead and focal point for referral management.

The PCT has just introduced an LES payment for practice-based commissioning clusters, to stimulate the gathering of information on referrals and provide feedback to practices. The PCT has also supported the continuation and development of a number of tier-two or interface services. Two of the most important are for orthopaedics and ophthalmology.

The musculoskeletal service has a range of practitioners – including an orthopaedic consultant, an extended skills practitioner, a physiotherapist, a podiatrist and a GPwSI – and acts as a 'triage board'. The ophthalmology service is run by opticians who are advanced practitioners. They clinically review all referrals sent to them, pass on those that need to be seen in secondary care, and aim to manage a substantial proportion themselves. There has also been an expansion of GP minor surgery.

GPs are not required to use any of the interface services; they are simply an additional referral option for GPs to use if they wish. However, the PCT has worked with the local acute trust to agree and try to enforce minimum referral standards. If GP referrals do not meet these standards, which, for example, require certain minimum levels of prior investigation, the trust is expected to send referrals back.

# Appendix C: Key referral statistics for all PCTs

Data were obtained from the Hospital Episode Statistics outpatient database for 2005/6, 2006/7, 2007/8, and 2008/9. Patient activity classified by attendance date, rather than referral date, was used as this provides the most up-to-date breakdown of hospital activity.

The year-on-year changes in referral volumes for some primary care trusts (PCTs) suggested data quality issues, and growth values that are considered to be outliers are printed in purple in the following table. Outliers were defined as a percentage growth in attendance above or below one standard deviation from the mean for that measure for that PCT. Referral rates were standardised by age and sex at PCT level.

**Table 8** PCT referral data

| PCT | Percentage change in referrals by source 2005/6 to 2008/9 | | | | GP referral rates (per 100 standardised population) | | |
|---|---|---|---|---|---|---|---|
| | GP | Consultant | Other | Total | 2005/6 | 2008/9 | Change |
| Ashton, Leigh and Wigan | 60.5 | 31.7 | 174.9 | 76.1 | 17.9 | 28.4 | +10.56 |
| Barking and Dagenham | 41.1 | 9.6 | 35.3 | 34.0 | 22.4 | 31.8 | +9.32 |
| Barnet | 32.2 | 51.5 | 40.6 | 37.0 | 26.5 | 34.2 | +7.77 |
| Barnsley | -36.2 | 26.6 | 198.1 | 48.6 | 19.8 | 12.5 | -7.30 |
| Bassetlaw | 13.0 | 26.0 | 29.6 | 19.1 | 20.1 | 22.3 | +2.26 |
| Bath and North East Somerset | 34.4 | 56.2 | 18.6 | 34.6 | 16.1 | 21.2 | +5.07 |
| Bedfordshire | 11.7 | 136.8 | -17.2 | 13.6 | 18.8 | 20.3 | +1.54 |
| Berkshire East | 18.4 | 231.1 | 41.8 | 44.0 | 19.2 | 22.0 | +2.72 |
| Berkshire West | 20.9 | 68.2 | 8.8 | 22.0 | 15.2 | 17.8 | +2.60 |
| Bexley Care Trust | 10.2 | 48.6 | 30.1 | 21.3 | 17.0 | 18.5 | +1.57 |
| Birmingham East and North | 0.9 | 24.5 | 64.9 | 20.8 | 20.4 | 20.3 | -0.08 |
| Blackburn with Darwen | 11.1 | -31.9 | 152.8 | 39.6 | 16.3 | 18.6 | +2.34 |
| Blackpool | 39.0 | 65.4 | 78.6 | 53.4 | 17.0 | 23.9 | +6.88 |
| Bolton | -17.4 | 10.4 | 123.3 | 22.0 | 23.1 | 19.2 | -3.97 |
| Bournemouth and Poole Teaching | -2.7 | -24.9 | 2.4 | -4.2 | 18.5 | 17.8 | -0.74 |
| Bradford and Airedale Teaching | 26.0 | 14.9 | 70.0 | 33.2 | 16.4 | 20.4 | +3.99 |
| Brent Teaching | 20.8 | 61.7 | 17.3 | 26.1 | 21.7 | 25.8 | +4.09 |
| Brighton and Hove City Teaching | 40.3 | 75.1 | 33.8 | 41.0 | 18.1 | 24.8 | +6.69 |
| Bristol | 43.9 | 49.5 | 43.0 | 44.7 | 18.5 | 26.0 | +7.52 |
| Bromley | 7.9 | 18.4 | 78.1 | 22.9 | 25.8 | 27.5 | +1.70 |
| Buckinghamshire | 23.6 | 105.6 | 5.3 | 26.2 | 17.6 | 21.4 | +3.78 |
| Bury | 17.0 | 42.4 | 80.3 | 34.2 | 17.3 | 20.1 | +2.85 |
| Calderdale | 16.3 | -36.8 | 67.8 | 12.1 | 20.7 | 23.5 | +2.79 |
| Cambridgeshire | 8.6 | 10.4 | 15.2 | 10.5 | 20.6 | 21.5 | +0.98 |
| Camden | 26.8 | 23.1 | 18.5 | 24.2 | 29.1 | 35.6 | +6.49 |
| Central and Eastern Cheshire | 20.0 | 120.3 | 66.5 | 45.3 | 17.2 | 20.5 | +3.29 |
| Central Lancashire | 32.9 | 59.7 | 56.3 | 41.2 | 19.1 | 25.1 | +6.00 |
| City and Hackney Teaching | 28.2 | 5.2 | 7.4 | 17.4 | 23.9 | 30.3 | +6.42 |

*continued overleaf*

## Table 8 *continued*

| PCT | Percentage change in referrals by source 2005/6 to 2008/9 | | | | GP referral rates (per 100 standardised population) | | |
|---|---|---|---|---|---|---|---|
| | GP | Consultant | Other | Total | 2005/6 | 2008/9 | Change |
| Cornwall and Isles of Scilly | 37.1 | 43.4 | 112.4 | 53.3 | 17.9 | 23.7 | +5.86 |
| County Durham | 12.8 | 30.3 | 53.9 | 27.8 | 18.6 | 20.6 | +1.97 |
| Coventry Teaching | 6.9 | -61.4 | 30.5 | -0.9 | 20.6 | 22.1 | +1.43 |
| Croydon | 7.7 | 265.5 | -19.6 | 14.9 | 20.6 | 21.8 | +1.22 |
| Cumbria Teaching | 19.9 | 4.7 | 92.9 | 35.5 | 19.3 | 22.9 | +3.62 |
| Darlington | -3.7 | 37.3 | 153.8 | 34.6 | 24.4 | 23.1 | -1.35 |
| Derby City | 58.6 | 102.6 | 76.1 | 70.4 | 18.8 | 29.4 | +10.69 |
| Derbyshire County | 28.9 | 59.8 | 31.5 | 33.8 | 18.1 | 22.8 | +4.65 |
| Devon | 32.6 | 83.1 | 48.5 | 45.7 | 18.8 | 23.6 | +4.87 |
| Doncaster | 10.9 | 42.5 | -3.1 | 12.1 | 18.4 | 20.3 | +1.87 |
| Dorset | 33.3 | 106.3 | 24.6 | 41.0 | 17.5 | 22.7 | +5.20 |
| Dudley | 48.9 | 86.2 | 110.6 | 69.5 | 17.4 | 25.7 | +8.31 |
| Ealing | 0.3 | 51.2 | 1.1 | 9.2 | 30.3 | 30.1 | -0.20 |
| East and North Hertfordshire | 39.4 | 48.8 | 114.2 | 56.6 | 17.2 | 23.3 | +6.16 |
| East Lancashire Teaching | 28.2 | -34.7 | 154.2 | 36.5 | 17.4 | 22.3 | +4.87 |
| East Riding of Yorkshire | 9.2 | -3.5 | 21.1 | 8.9 | 19.7 | 20.9 | +1.25 |
| East Sussex Downs and Weald | -8.5 | 232.8 | 189.5 | 20.4 | 25.0 | 22.3 | -2.71 |
| Eastern and Coastal Kent | 18.1 | 62.9 | 6.9 | 19.4 | 15.9 | 18.3 | +2.40 |
| Enfield | 18.2 | 51.1 | -15.4 | 13.6 | 24.9 | 28.8 | +3.92 |
| Gateshead | 6.3 | -36.3 | -19.9 | -10.7 | 30.5 | 32.3 | +1.83 |
| Gloucestershire | 34.1 | 53.4 | 71.2 | 48.4 | 16.0 | 21.1 | +5.09 |
| Great Yarmouth and Waveney | -24.2 | -62.1 | 331.8 | 20.7 | 22.5 | 16.7 | -5.80 |
| Greenwich Teaching | 22.8 | 11.5 | -8.6 | 8.9 | 21.1 | 25.5 | +4.41 |
| Halton and St Helens | 27.4 | 50.6 | 35.3 | 32.2 | 24.7 | 31.4 | +6.70 |
| Hammersmith and Fulham | 18.0 | 77.4 | 28.0 | 28.8 | 23.4 | 27.6 | +4.15 |
| Hampshire | 18.7 | 70.2 | 54.3 | 33.8 | 17.3 | 19.9 | +2.66 |
| Haringey Teaching | 16.8 | 11.0 | 17.1 | 15.5 | 27.4 | 31.6 | +4.27 |
| Harrow | 21.7 | 57.5 | 16.4 | 24.6 | 18.8 | 22.5 | +3.71 |
| Hartlepool | 14.6 | 48.9 | 79.8 | 32.7 | 16.7 | 19.0 | +2.27 |
| Hastings and Rother | -17.6 | 616.6 | 563.2 | 24.4 | 27.9 | 22.4 | -5.53 |
| Havering | 37.0 | 22.6 | 0.5 | 22.8 | 19.2 | 25.8 | +6.62 |
| Heart of Birmingham Teaching | -10.3 | 82.8 | 136.7 | 27.7 | 25.8 | 22.3 | -3.51 |
| Herefordshire | 39.6 | 111.4 | 135.0 | 74.7 | 16.1 | 22.1 | +6.01 |
| Heywood, Middleton and Rochdale | 12.0 | 21.1 | 79.8 | 26.9 | 18.2 | 20.5 | +2.30 |
| Hillingdon | 34.1 | 88.9 | 16.9 | 33.7 | 20.6 | 27.1 | +6.47 |
| Hounslow | 23.2 | 28.4 | 41.2 | 29.2 | 24.8 | 30.2 | +5.47 |
| Hull Teaching | 13.9 | -13.1 | 3.5 | 7.0 | 20.5 | 23.1 | +2.57 |
| Isle of Wight NHS | 8.4 | 23.1 | 32.2 | 17.7 | 17.0 | 17.9 | +0.84 |
| Islington | 11.0 | 19.4 | -2.9 | 9.2 | 31.4 | 34.1 | +2.74 |
| Kensington and Chelsea | 20.0 | 77.8 | 118.7 | 66.5 | 15.2 | 17.7 | +2.50 |
| Kingston | 4.2 | 40.1 | 18.3 | 14.0 | 27.9 | 28.6 | +0.65 |
| Kirklees | 10.1 | 70.9 | 149.7 | 42.3 | 19.8 | 21.4 | +1.60 |
| Knowsley | 29.4 | 27.5 | 62.9 | 37.9 | 27.3 | 35.4 | +8.09 |
| Lambeth | 11.7 | 51.6 | 3.8 | 17.5 | 27.0 | 29.8 | +2.79 |
| Leeds | 10.7 | 34.9 | 52.9 | 21.9 | 16.0 | 17.1 | +1.16 |
| Leicester City | 13.2 | -1.9 | 19.7 | 12.3 | 21.8 | 24.2 | +2.44 |
| Leicestershire County and Rutland | 20.4 | 16.2 | 19.2 | 19.4 | 17.8 | 20.7 | +2.97 |
| Lewisham | 4.7 | 27.0 | 9.7 | 8.8 | 29.7 | 30.5 | +0.74 |
| Lincolnshire Teaching | 36.0 | 25.7 | -7.5 | 23.5 | 21.8 | 29.0 | +7.25 |
| Liverpool | 21.7 | 23.9 | 138.9 | 55.8 | 24.5 | 30.1 | +5.64 |

*continued opposite*

## Table 8 *continued*

| PCT | Percentage change in referrals by source 2005/6 to 2008/9 | | | | GP referral rates (per 100 standardised population) | | |
|---|---|---|---|---|---|---|---|
| | GP | Consultant | Other | Total | 2005/6 | 2008/9 | Change |
| Luton | -0.8 | 37.4 | -27.8 | -5.5 | 25.4 | 24.2 | -1.15 |
| Manchester | 11.8 | 86.1 | 85.8 | 40.0 | 22.1 | 24.4 | +2.27 |
| Medway | 23.6 | 23.9 | 13.0 | 20.6 | 19.3 | 23.7 | +4.39 |
| Mid Essex | 85.1 | 156.9 | 55.5 | 90.5 | 16.0 | 28.7 | +12.72 |
| Middlesbrough | 31.6 | 80.7 | 75.7 | 53.5 | 17.2 | 22.5 | +5.34 |
| Milton Keynes | 36.2 | -22.1 | 90.7 | 23.1 | 15.7 | 20.3 | +4.58 |
| Newcastle | 14.9 | 19.1 | 18.8 | 16.7 | 23.0 | 26.2 | +3.23 |
| Newham | 91.6 | 26.4 | 78.0 | 74.0 | 17.9 | 32.7 | +14.87 |
| Norfolk | 20.0 | -14.5 | 69.2 | 22.2 | 21.4 | 24.9 | +3.46 |
| North East Essex | 45.1 | -1.3 | 19.4 | 29.1 | 22.4 | 30.8 | +8.37 |
| North East Lincolnshire Care Trust Plus | 7.0 | 68.7 | 14.1 | 18.5 | 15.4 | 16.6 | +1.16 |
| North Lancashire | 30.4 | -25.8 | 105.6 | 43.1 | 16.9 | 21.7 | +4.79 |
| North Lincolnshire | -0.6 | 1.4 | 36.4 | 8.1 | 18.3 | 18.0 | -0.25 |
| North Somerset | 72.2 | 70.2 | 86.5 | 74.8 | 16.7 | 27.6 | +10.85 |
| North Staffordshire | 45.4 | 94.1 | 35.9 | 52.1 | 13.8 | 20.2 | +6.35 |
| North Tyneside | 12.9 | 15.9 | 28.0 | 17.1 | 22.2 | 24.7 | +2.43 |
| North Yorkshire and York | 7.9 | 7.7 | 47.9 | 15.7 | 18.3 | 19.2 | +0.87 |
| Northamptonshire Teaching | 24.3 | -36.4 | 53.6 | 21.0 | 15.1 | 18.0 | +2.97 |
| Northumberland Care Trust | 9.6 | 21.1 | 39.5 | 18.5 | 19.4 | 21.1 | +1.70 |
| Nottingham City | 22.3 | 366.2 | 15.0 | 34.6 | 18.6 | 22.6 | +4.02 |
| Nottinghamshire County Teaching | 22.4 | 160.8 | 20.2 | 33.5 | 18.7 | 22.5 | +3.76 |
| Oldham | 4.4 | 52.6 | 76.6 | 28.0 | 16.5 | 17.2 | +0.73 |
| Oxfordshire | 8.5 | 93.6 | 6.9 | 17.6 | 18.9 | 20.1 | +1.25 |
| Peterborough | 20.7 | 39.8 | 2.0 | 18.6 | 22.6 | 27.2 | +4.63 |
| Plymouth Teaching | 14.2 | 75.2 | 90.3 | 41.1 | 20.6 | 23.0 | +2.38 |
| Portsmouth City Teaching | 19.8 | 27.7 | 42.0 | 25.5 | 17.1 | 20.0 | +2.96 |
| Redbridge | 45.8 | 4.4 | 60.2 | 41.5 | 22.4 | 32.3 | +9.90 |
| Redcar and Cleveland | 30.6 | 78.8 | 85.2 | 53.2 | 15.3 | 20.0 | +4.66 |
| Richmond and Twickenham | -3.1 | 44.5 | 7.0 | 6.9 | 26.5 | 25.6 | -0.98 |
| Rotherham | 10.1 | 25.8 | 25.2 | 16.8 | 20.4 | 22.2 | +1.88 |
| Salford | 3.4 | 58.4 | 95.4 | 32.6 | 21.3 | 21.7 | +0.46 |
| Sandwell | -4.2 | 140.7 | 79.3 | 31.0 | 21.2 | 20.2 | -1.01 |
| Sefton | 18.4 | 34.3 | 94.6 | 39.4 | 22.2 | 26.7 | +4.53 |
| Sheffield | 8.6 | 44.2 | 36.7 | 22.7 | 25.1 | 26.7 | +1.60 |
| Shropshire County | 25.0 | 49.2 | 29.8 | 30.8 | 13.6 | 17.0 | +3.34 |
| Solihull Care Trust | 13.9 | -24.3 | 112.0 | 11.1 | 16.8 | 18.8 | +2.01 |
| Somerset | 35.7 | 69.8 | 11.3 | 35.7 | 16.2 | 21.5 | +5.21 |
| South Birmingham | 13.4 | 72.5 | 33.2 | 26.4 | 22.0 | 24.6 | +2.58 |
| South East Essex | -1.4 | -35.8 | 4.9 | -8.3 | 29.2 | 27.8 | -1.43 |
| South Gloucestershire | 38.0 | 44.3 | 33.6 | 38.3 | 18.6 | 25.2 | +6.56 |
| South Staffordshire | 17.1 | 78.7 | 49.4 | 34.0 | 19.0 | 21.9 | +2.91 |
| South Tyneside | 24.3 | 126.1 | 26.8 | 40.2 | 21.1 | 26.1 | +4.98 |
| South West Essex | 17.7 | 20.6 | 6.1 | 15.2 | 22.1 | 25.3 | +3.25 |
| Southampton City | 10.3 | 53.8 | 5.0 | 14.9 | 18.5 | 19.9 | +1.40 |
| Southwark | 26.2 | 48.0 | 7.7 | 25.6 | 23.9 | 28.9 | +4.95 |
| Stockport | 1.5 | 63.4 | 36.7 | 17.3 | 18.4 | 18.7 | +0.24 |
| Stockton-on-Tees Teaching | 23.6 | 56.0 | 62.4 | 37.8 | 16.6 | 20.1 | +3.47 |
| Stoke on Trent | 49.1 | 88.6 | 44.2 | 55.5 | 15.1 | 22.4 | +7.36 |
| Suffolk | 30.6 | 2.1 | -6.4 | 14.6 | 16.0 | 20.2 | +4.22 |
| Sunderland Teaching | 12.8 | -3.1 | 54.9 | 22.1 | 16.6 | 18.6 | +2.04 |

*continued overleaf*

## Table 8 *continued*

| PCT | Percentage change in referrals by source 2005/6 to 2008/9 | | | | GP referral rates (per 100 standardised population) | | |
|---|---|---|---|---|---|---|---|
| | GP | Consultant | Other | Total | 2005/6 | 2008/9 | Change |
| Surrey | 19.6 | 46.4 | 44.0 | 29.3 | 18.5 | 21.5 | +2.96 |
| Sutton and Merton | -7.3 | 34.0 | 25.0 | 6.0 | 32.3 | 29.2 | -3.03 |
| Swindon | 15.7 | 112.3 | 47.8 | 44.4 | 18.0 | 20.1 | +2.03 |
| Tameside and Glossop | 19.5 | 36.3 | 63.5 | 35.2 | 18.3 | 21.6 | +3.34 |
| Telford and Wrekin | 19.8 | 95.5 | 17.1 | 28.4 | 16.0 | 19.0 | +3.03 |
| Torbay Care Trust | 16.8 | 43.6 | 23.7 | 22.5 | 21.7 | 24.9 | +3.13 |
| Tower Hamlets | -11.0 | -36.0 | 0.5 | -13.1 | 29.8 | 25.1 | -4.68 |
| Trafford | 156.8 | 137.4 | 231.1 | 165.2 | 10.9 | 27.8 | +16.93 |
| Wakefield District | -19.1 | 32.2 | -26.3 | -14.6 | 23.1 | 18.5 | -4.60 |
| Walsall Teaching | 21.6 | 85.6 | 66.4 | 39.3 | 20.5 | 24.9 | +4.44 |
| Waltham Forest | 17.5 | -23.8 | 17.5 | 9.4 | 20.7 | 24.4 | +3.67 |
| Wandsworth Teaching | 0.5 | 72.6 | 1.9 | 13.6 | 30.3 | 29.9 | -0.41 |
| Warrington | 10.7 | 29.3 | 33.2 | 19.5 | 16.9 | 18.3 | +1.46 |
| Warwickshire | 5.2 | 47.1 | 35.6 | 20.8 | 16.7 | 17.0 | +0.36 |
| West Essex | 29.5 | 27.0 | 1.2 | 23.5 | 20.4 | 25.9 | +5.5 |
| West Hertfordshire | 22.0 | 45.5 | 11.2 | 22.0 | 20.4 | 24.3 | +3.93 |
| West Kent | 28.8 | 67.5 | -0.6 | 24.5 | 16.4 | 20.6 | +4.16 |
| West Sussex | 11.2 | -23.5 | -0.7 | -0.1 | 20.9 | 22.9 | +1.98 |
| Western Cheshire | 9.1 | 24.1 | 126.8 | 27.0 | 22.9 | 24.9 | +1.95 |
| Westminster | 20.2 | 74.2 | 103.4 | 50.5 | 18.8 | 22.0 | +3.18 |
| Wiltshire | 41.5 | 250.5 | 124.9 | 96.8 | 16.9 | 23.2 | +6.37 |
| Wirral | 18.1 | 47.4 | 71.5 | 34.9 | 18.0 | 21.4 | +3.40 |
| Wolverhampton City | 33.5 | 80.3 | 56.8 | 48.8 | 18.3 | 24.5 | +6.14 |
| Worcestershire | 29.7 | 109.0 | 69.9 | 50.8 | 18.6 | 23.8 | +5.17 |

Source: Hospital Episode Statistics outpatient database for 2005/6, 2006/7, 2007/8, and 2008/9

Notes: purple numbers = growth values that are above or below one standard deviation from the mean for that measure for that PCT; referral rates standardised by age and sex at PCT level.

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