This chapter provides an overview of the quality of care in English general practice by summarising the key findings from the research commissioned by the inquiry. This is supplemented with analysis of routine data to illustrate the extent of variations in the quality of care between practices. The chapter also briefly examines how the quality of English general practice compares with the primary care services offered in other countries.

In this chapter, we set out to make an overall assessment of what the evidence tells us about the quality of care in English general practice, the key areas where improvements to the quality of care could be made, and the gaps in knowledge that need to be addressed.*

The evidence is presented within three sections:

- core services provided within general practice
- non-clinical aspects of general practice
- general practice as part of a wider system of care.

Each of these is discussed in turn.

Core services provided within general practice

This section looks at the evidence from what might be termed the ‘core’ services provided within a general practice. It addresses:

- the quality of diagnosis, referral and prescribing
- the management of acute illness
- the management of people with long-term conditions
- promoting health and preventing ill health.

Diagnosis

The research we commissioned found considerable variation in the quality of diagnosis within and between general practices (Foot et al 2010). The evidence for such variation is not routinely available, but comes primarily from published research using SEAs. Variation in the quality of diagnosis, and in delays and errors in diagnosis, can occur for a number of reasons, including:

- atypical presentations or unusual symptoms (Kostopoulou et al 2008; Bjerager et al 2006; Esmail et al 2004)
- non-specific presentations (Kostopoulou et al 2008; Jiwa et al 2004)
- the very low prevalence of the condition (Kostopoulou et al 2008; Esmail et al 2004)
- the presence of co-morbidity and pre-existing disease (Kostopoulou et al 2008; Bjerager et al 2006; Macdonald et al 2006; Calder et al 2000)

*For a more detailed review of the evidence, the original reports that were published during the course of the inquiry are available at www.kingsfund.org.uk/current_projects/gp_inquiry/index.html
perceptual features, meaning the missing of visual or auditory signs of a condition (Kostopoulou et al 2008)

■ a GP’s lack of exposure to the condition (Abel et al 2008; Bjerager et al 2006; Blomgren and Pitkaranta 2003)

■ limited knowledge of signs and symptoms (Abel et al 2008; Bellamy and Smith 2007; Kassirer and Kopelman 1989)

■ low adherence to guidelines recommending what to look for in certain conditions (Bellamy and Smith 2007; Daly and Collins 2007; Esmail et al 2004)

■ poor examination (Weingart et al 2009; Singh et al 2007)

■ an over-reliance on patient symptoms and information, as opposed to signs and screening (Abel et al 2008)

■ not doing a test or investigation (Evans et al 2007; Singh et al 2007; Chapman et al 2001; Calder et al 2000; Bouma et al 1999)

■ general uncertainty in diagnostic methods (Blomgren and Pitkaranta 2003).

It is difficult to establish the scale of the problem. A 2003/4 analysis of 202 randomly selected claims in the Medical Protection Society and Medical Defence Union databases found that 50 per cent were a result of diagnostic delay (Esmail et al 2004). The major themes across the claims were:

■ lack of knowledge and skills

■ diagnostic difficulties in newborns and children

■ an insufficient level of suspicion regarding signs and symptoms of rare but life-threatening diseases.

More recently, the National Awareness and Early Diagnosis Initiative for cancer reported significant quality issues arising from delays in cancer diagnosis (Department of Health 2009a). However, a separate significant events audit (SEA) into the diagnosis of lung cancer and cancers in teenagers and young adults found that diagnosis was appropriate in the majority of cases. The audit found many cases of exemplary practice, but in a small proportion (9 per cent) of the cases reviewed there was also evidence of missed opportunities for earlier diagnosis (Mitchell et al 2009).

Under QOF, practices are required to record whether they have undertaken a minimum of 12 significant event audits in the past three years. Overall, the majority of practices achieved this target, and less than 5 per cent of practices failed to meet this target. Achieving the QOF target appears to occur less often among smaller practices and practices in the most deprived communities, although this gap narrowed over time (see Figures 2 and 3, opposite).

Areas for quality improvement

There is little available evidence that allows us to assess the overall quality of diagnosis across general practice. However, the evidence suggests that variations in the quality of diagnosis exist and are influenced by many factors, including the different knowledge and skills of GPs. Given the nature of the presentations they face, effective diagnosis can remain a challenge even for the most knowledgeable and expert of GPs. Retrospective audit and SEA is essential to assess the scale of any problems with the quality of diagnosis.

### Diagnosis: key points

■ A variety of factors can lead to delays and errors in diagnosis, but there is not enough evidence to ascertain the scale of any such problems in general practice.

■ Retrospective audit and significant event audit is essential to assess and improve the quality of diagnosis.
Figure 2 Percentage of practices undertaking at least 12 significant event audits by deprivation quintile of practice

![Graph showing percentage of practices undertaking at least 12 significant event audits by deprivation quintile of practice.](image)

Source: QOF 2006/7 to 2009/10

Figure 3 Percentage of practices undertaking at least 12 significant event audits by practice list size quintile, 2009/10

![Graph showing percentage of practices undertaking at least 12 significant event audits by practice list size quintile.](image)

Source: QOF 2009/10
Referral

The research evidence presented to the inquiry shows that there are wide variations in the rate of referrals across GP practices (Foot et al 2010). For example, evidence from HES data on elective admissions to hospital shows that admission rates vary widely by practice across England (see Figure 4 below).

Studies have reported up to tenfold variation between the rates at which GPs refer to a particular specialty within a single area (Ashworth et al 2002; Creed et al 1990). Some of this can be accounted for by random variation (Moore and Roland 1989; Noone et al 1989) or by differing levels of morbidity between different groups of patients (O’Sullivan et al 2005). However, neither chance nor differing morbidity levels can account for all of the variation observed.

Despite widespread variations in referral rates, most research studies show that ‘inappropriate’ referral practice may account for only a relatively small amount of such variation (see Fertig et al 1993; Knottnerus et al 1990). Moreover, there appears to be little direct association between variation and subsequent patient outcomes.

Figure 4 Elective hospital admission rates* per 100,000 practice population, 2008/9

* Age- and sex-standardised rates

Foot et al’s (2010) research examined quality across the following four aspects of referral.

- **Necessity** Are patients referred as and when necessary?
- **Timeliness** Is this done without avoidable delay?
- **Destination** Are patients referred to the most appropriate destination first time?
Process

Is the process of referral a high-quality one, in the following respects:

- Do referral letters contain appropriate information in an accessible format?
- Are patients offered a choice of time and location of care and supported in making an informed decision?
- Are the GP, patient and specialist able to construct a shared understanding of purpose and expectations of the referral?
- Is pre-referral management adequate?

Each of these four aspects of referral is discussed below.

Necessity

The evidence suggests that a significant proportion of referrals made in general practice may be clinically unnecessary (see Table 4 below). However, there are also a number of patients (the precise number is often unknown) who need a referral but fail to receive one. Because of the trade-off between the sensitivity and specificity of the referral decision, it may be difficult to decrease unnecessary referrals without also decreasing necessary referrals.

Also, it should be noted that different stakeholders do not always agree on assessments of necessity. In a study of musculoskeletal referrals, 43 per cent of referrals rated as ‘probably unnecessary’ 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).

Table 4: Summary of evidence on necessity of GP referrals

<table>
<thead>
<tr>
<th>Study</th>
<th>Specialty</th>
<th>Key findings on quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jones and Stott (1994)</td>
<td>All referrals</td>
<td>35% of 168 referrals could have been managed in primary care</td>
</tr>
<tr>
<td>Roland et al (1991)</td>
<td>Musculoskeletal</td>
<td>23% of referrals to orthopaedics assessed by specialists as being unnecessary and more appropriate for primary care management. GPs considered 11% of referrals unnecessary</td>
</tr>
<tr>
<td>Patel et al (2000)</td>
<td>Cancer</td>
<td>28% of urgent referrals and 37% of non-urgent referrals assessed as unnecessary</td>
</tr>
<tr>
<td>Bowling and Redfern (2000)</td>
<td>General outpatients</td>
<td>95% of patients rated their referral as necessary</td>
</tr>
<tr>
<td>Forrest et al (2003)</td>
<td>Children</td>
<td>GPs refer young children more readily than older children with equivalent need, suggesting lower confidence levels and referral thresholds for younger children</td>
</tr>
</tbody>
</table>

Source: Foot et al 2010

Timeliness

The majority of GPs refer within recommended timeframes (Foot et al 2010). However, there is evidence of late GP referral in a number of areas – particularly for several kinds of cancer (Khattak et al 2006; Clark and Thomas 2005) (see Table 5 overleaf). An important component of cancer referral relates to the assessment of urgency, and there is a growing evidence base questioning GPs’ ability to do this accurately (see Potter et al 2007; Khawaja and Allan 2001).

However, it is important to distinguish between delays in referral and other sources of delay outside of the GP’s control. A study comparing the relative contribution of different sources of delay in treatment of psychosis found that only a small part of the overall delay can be attributed to delayed GP referral, compared to delayed help-seeking behaviour or delay within specialist services (Brunet et al 2007).
Table 5: Summary of evidence on timeliness of GP referrals

<table>
<thead>
<tr>
<th>Study</th>
<th>Specialty</th>
<th>Key findings on quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roderick et al (2002)</td>
<td>Nephrology</td>
<td>38% of 250 patients were referred late, and 45% of these late referrals were assessed as avoidable. Of direct referrals from GPs, 16% were late, and 36% of these were avoidable. 20-50% patients starting dialysis are late referrals.</td>
</tr>
<tr>
<td>Levin (2000)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brunet et al (2007)</td>
<td>Mental health (psychosis)</td>
<td>9% of overall delay can be attributed to delayed GP referral, compared to delayed help-seeking behaviour or delay within specialist services.</td>
</tr>
<tr>
<td>Clark and Thomas (2005)</td>
<td>Cancer</td>
<td>8%-14% of GP referrals to soft-tissue sarcoma unit deemed too late. 38% of patients with colorectal cancer not referred in 6 weeks. Specificity of two-week wait referrals has declined each year from 1999 to 2005. 90% of two-week wait patients have benign disease.</td>
</tr>
<tr>
<td>Potter et al (2007)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Khawaja et al (2001)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Foot et al 2010

Destination

Identifying the most appropriate destination for a referral is important, since it has clear implications for patient experience, clinical outcomes and resource use (Johnson et al 2008). Evidence suggests that, within particular areas, there is scope for improvement on this dimension of quality (see Table 6, below). Getting the right destination appears to be more challenging in the case of medical specialties rather than surgical specialties (Jenkins 1993), and can be a particular issue for musculoskeletal referrals, with a lack of clarity over whether patients are best sent to orthopaedics, rheumatology, physiotherapy or elsewhere (Speed and Crisp 2005). Several studies look at the proportion of referrals to secondary care that could have been seen in community settings.

The evidence suggests particular opportunities for diversion in the case of dermatology and musculoskeletal referrals (Foot et al 2010).

Table 6: Summary of evidence on destination of GP referrals

<table>
<thead>
<tr>
<th>Study</th>
<th>Specialty</th>
<th>Key findings on quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jenkins (1993)</td>
<td>General outpatients</td>
<td>7% of referrals to medical specialties and 2% of referrals to surgical specialties assessed as having been referred to the wrong specialty.</td>
</tr>
<tr>
<td>Clews (2006)</td>
<td>Dermatology</td>
<td>Around 50% of referrals could have been treated in community settings. 49% of referrals could have been treated by a GP with a special interest (GPwSI).</td>
</tr>
<tr>
<td>Salisbury et al (2005)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Speed and Crisp (2005)</td>
<td>Respiratory medicine</td>
<td>27% of referrals to orthopaedics were more appropriate for rheumatology. Around 50% of referrals could have been treated in community settings.</td>
</tr>
<tr>
<td>Gilbert et al (2005)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coulston et al (2008)</td>
<td>Hernia</td>
<td>84% referred to general surgeon or as an open referral - only 14% referred to hernia specialist.</td>
</tr>
</tbody>
</table>

Source: Foot et al 2010

Referral process

The referral process is examined in terms of four separate factors:

- referral letters
- shared expectations of referral
- patient choice
- pre-referral management.
Table 7: Summary of evidence on quality of referral letters

<table>
<thead>
<tr>
<th>Content Item</th>
<th>Study</th>
<th>Specialty</th>
<th>% of letters with missing, incorrect or unsatisfactory information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reason for referral</td>
<td>Jenkins (1993)</td>
<td>General outpatients</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>White et al (2003)</td>
<td>All specialties</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Jenkins (1993)</td>
<td>General outpatients</td>
<td>12</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>Bodek et al (2006)</td>
<td>Cardiology</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>White et al (2003)</td>
<td>All specialties</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Speed and Crisp (2005)</td>
<td>Musculoskeletal</td>
<td>63</td>
</tr>
<tr>
<td></td>
<td>White et al (2003)</td>
<td>All specialties</td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Burbach and Harding (1997)</td>
<td>Mental health</td>
<td>41</td>
</tr>
<tr>
<td></td>
<td>Taylor and Markar (2002)</td>
<td>Learning disabilities</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>Burbach and Harding (1997)</td>
<td>Mental health</td>
<td>53</td>
</tr>
<tr>
<td>Examination results</td>
<td>Molloy and O'Hare (2003)</td>
<td>Medical outpatients</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td>Speed and Crisp (2005)</td>
<td>Musculoskeletal</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>White et al (2003)</td>
<td>All specialties</td>
<td>46</td>
</tr>
<tr>
<td>Investigation results</td>
<td>Molloy and O'Hare (2003)</td>
<td>Medical outpatients</td>
<td>32</td>
</tr>
<tr>
<td></td>
<td>Speed and Crisp (2005)</td>
<td>Musculoskeletal</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Taylor and Markar (2002)</td>
<td>Learning disabilities</td>
<td>71</td>
</tr>
<tr>
<td>Details on prior management</td>
<td>Speed and Crisp (2005)</td>
<td>Musculoskeletal</td>
<td>41</td>
</tr>
<tr>
<td>Medical history</td>
<td>Jenkins (1993)</td>
<td>General outpatients</td>
<td>28</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>50</td>
</tr>
<tr>
<td></td>
<td>Jenkins (1993)</td>
<td>General outpatients</td>
<td>26</td>
</tr>
<tr>
<td></td>
<td>Burbach and Harding (1997)</td>
<td>Mental health</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Taylor and Markar (2002)</td>
<td>Learning disabilities</td>
<td>31</td>
</tr>
<tr>
<td>Relevant psychosocial details</td>
<td>Jenkins (1993)</td>
<td>General outpatients</td>
<td>21</td>
</tr>
<tr>
<td></td>
<td>McNNeill (2008)</td>
<td>Stroke</td>
<td>63</td>
</tr>
<tr>
<td>Known allergies</td>
<td>Jenkins (1993)</td>
<td>General outpatients</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Burbach and Harding (1997)</td>
<td>Mental health</td>
<td>81</td>
</tr>
</tbody>
</table>

Source: Foot et al 2010
Each of these is discussed in turn.

Referral letters
There is strong evidence suggesting that quality could be improved for at least a substantial minority of letters (see Table 7 on p 51). In one survey, 38 per cent of specialists in outpatient departments reported that referral letters contain inadequate information ‘fairly often’ or ‘very often’ (Bowling and Redfern 2000). In a study examining emergency referrals, 17 per cent of referral letters were assessed as containing ‘inadequate’ information by the admitting doctor (Mead et al 1999).

Meanwhile, several studies have found that a proportion of referral letters do not contain sufficient detail to allow specialists to make reliable decisions about prioritisation and triage (Patel et al 2008; Webb and Khanna 2006) or to decide on the most appropriate destination for the referral (Speed and Crisp 2005).

Shared expectations of referral
Evidence 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 (see Table 8 below). There is particular scope for mismatch between patients’ expectations and those of their GP in the case of referrals for chronic health problems, stigmatising conditions, problems of psychological or social origin, and mental health (Broomfield et al 2001; Preston et al 1999).

Table 8: Summary of evidence on shared understanding of purpose

<table>
<thead>
<tr>
<th>Study</th>
<th>Specialty</th>
<th>Key findings on quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grace and Armstrong</td>
<td>11 medical and surgical specialties</td>
<td>In 67% of cases, there was no shared understanding of reason for referral between GP, patient and consultant</td>
</tr>
<tr>
<td>(1986)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Molloy and O’Hare</td>
<td>Medical outpatients</td>
<td>16% patients did not understand reason for referral</td>
</tr>
<tr>
<td>(2003)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Broomfield et al</td>
<td>Mental health</td>
<td>Referring GP and recipient psychologist disagreed on ‘reasons for care’ in 40% of cases. One-third of anxiety referrals and half of depression referrals were treated differently than envisaged by GP</td>
</tr>
<tr>
<td>(2001)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Watson et al (2001)</td>
<td>Cancer genetics</td>
<td>Common misconceptions among GPs - 31% thought that patient would have genetic testing. In reality this is rarely performed.</td>
</tr>
</tbody>
</table>

Source: Foot et al 2010

Patient choice
There is little evidence as to whether GPs support patients to choose a hospital that fits with their preferences, but what evidence does exist shows that many patients were not offered a choice, did not discuss options with their GP, and did not attend the hospital they wanted (see Table 9 opposite).
Table 9: Summary of evidence on patient choice

<table>
<thead>
<tr>
<th>Study</th>
<th>Specialty</th>
<th>Key findings on quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Department of Health (2009)</td>
<td>Offering choice</td>
<td>47% of patients recalled being offered a choice of provider. Variation by PCT ranged from 27% in Newcastle PCT to 80% in Solihull PCT</td>
</tr>
<tr>
<td>Green et al (2008)</td>
<td></td>
<td>41% of patients in one hospital’s outpatient department recalled being offered a choice</td>
</tr>
<tr>
<td>Department of Health (2009)</td>
<td>Awareness of choice</td>
<td>50% of patients aware that they had a choice of hospital before visiting their GP</td>
</tr>
<tr>
<td>Department of Health (2009)</td>
<td>Patients attending the</td>
<td>89% of patients who were offered choice went to the hospital they wanted, compared to 46% of those who were not offered choice</td>
</tr>
<tr>
<td></td>
<td>hospital they wanted</td>
<td></td>
</tr>
<tr>
<td>Hansard (2009-10)</td>
<td>Choose and Book usage</td>
<td>53% of GP referrals made through Choose and Book</td>
</tr>
<tr>
<td>Department of Health (2009)</td>
<td>GP support</td>
<td>41% of patients discussed which hospital they should go to with their GP</td>
</tr>
</tbody>
</table>

Source: Foot et al 2010

Pre-referral management

Several studies suggest that for a proportion of patients it would be beneficial if GPs performed more thorough investigations or examinations before making the decision to refer, or started preliminary treatment in primary care (see Table 10 below).

Table 10: Summary of evidence on pre-referral management

<table>
<thead>
<tr>
<th>Study</th>
<th>Specialty</th>
<th>Key findings on quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bowling and Redfern (2000) Jenkins (1993)</td>
<td>General outpatients</td>
<td>In 22% of referrals, specialists reported that the GP could have done more before referral. 42% of specialists said that GPs do not perform adequate pre-referral investigation or treatment</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Referral letters for referrals assessed as inappropriate all showed evidence of misinterpretation of clinical symptoms/signs or investigation results</td>
</tr>
<tr>
<td>Molloy and O’Hare (2003)</td>
<td>Medical outpatients</td>
<td>Inadequate pre-referral investigations performed in 55% of cases. Where performed, results were not enclosed in 32%. In 61% of cases treatment could have been started before referral, but in 36% of these cases this was not done</td>
</tr>
<tr>
<td>Bodek et al (2006)</td>
<td>Cardiology</td>
<td>56% of patients received neither basic investigation nor treatment before referral</td>
</tr>
</tbody>
</table>

Source: Foot et al 2010

Areas for quality improvement

There are wide variations in the rate of referrals across GP practices. This variation in referral rates is influenced by a range of factors. These include those that general practice cannot influence directly (for example, related differences in case-mix, prevalence of co-morbidities, and patient characteristics such as age and sex). However, other factors could be addressed, including variation that is attributable to practice characteristics. These include practice size, characteristics of the wider health economy (such as where different services are available), and GP attitudes to risk and other cognitive factors. In particular, there is scope for improvement in a number of areas of referral quality, including:

- the clinical necessity of referrals
- whether referrals are made in a timely manner (especially in cancer care)
- the ability to get patients to the right destination of care following referral
- improving the quality of referral letters
- enabling patient choices
- involving patients in decisions about referral options.
To support quality improvements in these areas, general practice could consider a number of approaches. For example, in terms of the necessity, timeliness and destination of referral, local audits could help to establish compliance with best-practice guidelines.

However, it is important to exercise caution in interpreting the kind of data that would be produced from such an exercise. Judgements around necessity and destination often depend on context, and assessment can vary from one stakeholder to the next. Measures of timeliness need to distinguish between delays over which the GP has some control versus delay that is driven by other factors. For some surgical specialties, such as orthopaedics, an alternative would be to use conversion rates in secondary care as a measure of referral necessity and appropriateness of referral destination. Similar caveats around interpretation would apply.

Referral processes may be more easily subjected to approaches that might support quality improvement. For example, the quality of referral letters could be assessed in terms of inclusion of key details. This could be used to provide GPs with a useful overview of how their referral letters compare to those of their peers. However, in order to use the data collected as a measure of quality the list would need to be adapted for different types of referral. Data would need to be triangulated from GPs, consultants and patients in order to measure the extent to which understandings of the referral purpose are shared between the three groups. Patient-reported data could also be used to measure satisfaction with the provision of choice at the point of referral. However, collection of such data may pose an unacceptable administrative burden.

**Referrals: key points**

- There are wide variations in the rate of referrals between practices. The evidence suggests that a significant proportion of referrals made in general practice may not be clinically necessary. However, the appropriateness of a referral is specific to the context and it may be difficult to decrease unnecessary referrals without also decreasing necessary referrals.

- There is scope for improvement in other aspects of the quality of referrals:
  - ensuring timely referrals are made (especially in cancer care)
  - the quality of referral letters
  - getting patients to the right destination of care
  - involving patients in decisions about referral options.

- General practices could adopt a range of possible approaches to promote quality improvement in referral practices through local audits and patient-reported data. However, they would need to collect and interpret such data carefully.

**Prescribing**

The report to the inquiry on the quality of prescribing and prescriptions management by Duerden et al. (2011) documented how the use of drugs and appliances ‘on prescription’ has been increasing rapidly in England. Between 1997 and 2007 prescribing costs in general practice rose by 60 per cent, to £8 billion – comprising nearly 10 per cent of the overall NHS budget (National Audit Office 2007). Variations in the levels of prescribing between general practices are common, and widely reported, but studies have not explained well the large differences in prescribing between practices.

The consequences of such variation have significant implications for the cost-effectiveness and the quality of care. Drug wastage is significant, and the estimated cost to the NHS
was at least £300 million in 2009 out of an overall drugs bill of £8 billion (York Health Economics Consortium 2010). This figure includes £90 million worth of unused prescription medicines stored in individuals’ homes at any one time, £110 million returned to community pharmacies over the course of a year, and up to £50 million worth of NHS supplied medicines that are disposed of annually by care homes.

We consider this issue by examining:

- patient safety
- medicines management
- ensuring cost-effectiveness.

Patient safety

Medication errors in general practice occur in up to 11 per cent of prescriptions, mainly due to errors in dosage (Sanders and Esmail 2003). The ability to prevent, review and act on medication errors is an important aspect of the quality of prescribing in general practice. However, there is evidence to suggest that inadequacies in patient monitoring within general practice account for around one-quarter of preventable medication-related hospital admissions. Medication errors appear to be particularly high for certain groups of patients, including:

- frail elderly people
- people with multiple long-term conditions
- people with acute problems
- patients who do not follow medication guidance.

Medicines management

A Cochrane review on the systems and strategies that general practice uses to support adherence to medication regimes found that even the most effective interventions did not lead to major improvements in adherence (Haynes et al 2008). For example, between one-third and one-half of all medication prescribed for long-term conditions is not taken as recommended (Nunes et al 2009). The prevalence of preventable medicines-related hospital admissions has been estimated at 4–5 per cent of all admissions (Pirmohamed et al 2004).

General practice is incentivised under QOF to undertake a medication review, which enables them to meet a series of standards entitled Medicines 10, Medicines 11 and Medicines 12. The review entails:

- meeting a prescribing adviser annually and agreeing up to three actions related to prescribing and subsequently providing evidence of change (Medicines 10)
- demonstrating that medication reviews are recorded in the notes of all patients being prescribed four or more repeat medicines in the preceding 15 months (Medicines 11 – standard 80 per cent or more)
- demonstrating that a medication review is recorded in the notes in the preceding 15 months for all patients being prescribed repeat medicines (Medicines 12 – standard 80 per cent or more).

Most practices in the NHS in England meet – and, indeed, outperform – these standards, with 94.1 per cent of practices achieving Medicines 10, 97.6 per cent Medicines 11 and 95.8 per cent of practices achieving Medicines 12 in 2009/2010.
English general practice has one of the highest rates of generic prescribing in the world, at 83 per cent in 2008 (Duerden et al 2011). However, it has been estimated that £200 million could be saved if the use of statins (and a number of other drugs) could be standardised to the 25 per cent most efficient practices (National Audit Office 2007). An illustration of the current variation in the percentage of low-cost statins prescribed across London PCTs, and the potential productivity opportunity for standardising statin prescriptions, is shown in Figure 5 above (NHS Institute for Innovation and Improvement 2006–11).

As with referral rates, observed variations in prescribing need to be adjusted in order to take account of the practice population using an appropriate case-mix adjustment. For example, Omar et al (2008) used patients’ clinical case-mix to explain variation in general practice prescribing. Their study showed that only 10 per cent of the variation in prescribing could be explained through factors such as age and sex, but that 80 per cent of the variation could be explained when including morbidity as a predictive variable. However, they concluded that the use of ‘patient-based measures’ (for example, the nature of the therapeutic area for which the drugs were prescribed) would be needed to better explain both the appropriateness and efficiency of prescriptions (Omar et al 2008).

Areas for quality improvement

There is evidence to suggest that the quality and cost-effectiveness of prescribing practice could be improved in a number of areas, including a focus on reducing medication errors, supporting medications management, and in standardising drug prescriptions for
certain treatments. This appears to be particularly true for the more vulnerable cohorts of patients such as frail older people and those with long-term conditions.

Prescribing: key points

- Variation in the level of prescribing between general practices is common and widely reported. Much of the practice-level variation in prescribing results from differences in the clinical case-mix of patients and socio-economic factors.
- The consequences of variation in prescribing have significant implications both for the cost-effectiveness of care and for its quality. Drug wastage costs the NHS more than £300 million a year.
- There are opportunities for quality improvement to address inefficient or inappropriate prescribing – for example, through reducing medication errors, improving adherence to what is prescribed, and standardising prescribing practices for certain treatments, such as the prescription of low-cost statins, probably saving more than £200 million.

The management of acute illness

Acute illnesses are illnesses of short duration. There are a number of categories of acute illness, including:

- acute minor illness (for example, skin rashes)
- acute major illness, which is self-limiting and requires treatment (for example, upper respiratory tract infections)
- acute exacerbation of existing major illness (such as myocardial infarction or diabetic coma)
- acute presentation of a previously undiagnosed condition, such as epilepsy or stroke or an acute emotional or psychological problem (Jones et al 2010).

A key aspect of assessing the quality of care of acute illness in general practice is the appropriateness and effectiveness of the diagnosis and the management distinctions that are made between these four categories.

Existing research evidence suggests that the misdiagnosis of acute illness is prevalent as a result of the diffuse presentations encountered in general practice (Kostopoulou et al 2008). Despite some evidence to suggest that significant event analysis can have a positive effect (for example, see Bowie et al 2008), monitoring the quality of acute care in general practice is poor.

This section considers acute illness within three key areas:

- cancer
- cardiovascular disease
- stroke.

Cancer

The research commissioned by the inquiry examined referral data for suspected cancers from 51 practices in Lambeth PCT. This work revealed wide variance in the rates of two-week rule referrals, from 0.72 to 25.1 per 1,000 patients, and a 35-fold difference between practices with the lowest rates and those with the highest. The range between bottom and top quartiles was also wide, ranging from 5.7 to 12.3 per 1,000 patients. The percentage of cancer diagnoses among two-week referrals also ranged from 0 per cent to 24.2 per cent.
Jones et al (2010) concluded that if these findings were found to hold true across general practice as a whole, then those with exceptionally low rates of cancer diagnoses appear to be at risk of generating unjustifiable anxiety in patients referred and overburdening services. Conversely, those making referrals with exceptionally high rates of cancer diagnoses may be at risk of becoming insensitive to the possibility of cancer generally. In 2009/10, the National Audit Office (2010a) reported an eight-fold variation in the rate at which general practices in England urgently referred patients with suspected symptoms of cancer to specialists. In total, more than 900,000 people with suspicion of cancer were referred by GPs to specialists of which 11 per cent were subsequently diagnosed with cancer (National Audit Office 2010).

The National Oesophago-Gastric Cancer Audit 2009 annual report found significant regional variations in England and Wales in the pattern of referral from general practice to hospital for patients with oesophago-gastric cancer (Royal College of Surgeons et al 2009). One-third of patients diagnosed with stomach or oesophageal cancer were initially sent to hospital by their GP using non-urgent referral pathways – possibly resulting in late diagnosis and poorer survival chances. The proportion of patients who were not referred urgently ranged from 13 per cent to 66 per cent among the 30 regional cancer networks in England and Wales.

Cardiovascular disease

Analysis of QOF data shows that on average there is little variation in the proportion of the registered patients with coronary heart disease who have good cholesterol control, with
practices in PCTs on average meeting the target of 5mmol/l or less for 70–80 per cent of all diagnosed patients, including those who were exception reported (see Figure 6 opposite). Average performance masks wide variation within areas. Within one of the low-performing PCTs, half of practices were achieving the target for 70 per cent or less of all diagnosed patients (see Figure 7 above), and a few practices had exception rates of 20 per cent or more.

Further evidence suggests that GPs are aware of guidance related to statins and the secondary prevention of cardiovascular disease, but that they do not always carry out best-practice recommendations (Boyce et al 2010b). The increased use of statins has been an achievement – but it is variably deployed. There are higher rates of statin prescribing in general practices that serve deprived populations, but lower prescribing volume in practices with higher proportions of older people and members of black and minority ethnic (BME) groups (Ashworth et al 2007).

The evidence also suggests that access and referral to (and uptake and completion of) cardiac rehabilitation is severely constrained (Bethell et al 2008). People from lower socio-economic groups are less likely to participate in cardiovascular screening, thus affecting treatment options and outcomes (Soljak et al 2009; Adams et al 2004). Evidence for sex and age differences in the care of patients with stroke has also suggested a need to target women and older people for secondary prevention therapy (Simpson et al 2005).
Similar analysis shows that there is some variation in the care of patients who experience a stroke or transient ischaemic attack (TIA). On average, at PCT level, for between 80 and 90 per cent of these patients on GP registers practices achieved the target of a last blood-pressure reading of 150/90 or less (see Figure 8 above). However, again this masks considerable variation in performance between practices. One practice had exception reported 50 per cent of patients with an achievement rate of under 20 per cent for all diagnosed patients. This compares with no-exception reporting and a 100 per cent achievement rate in another practice in the same PCT (see Figure 9 opposite).

Looking at such variations locally, it will be important to consider whether such outliers are due to data error or some other factor.

**Areas for quality improvement**

The evidence presented to the inquiry relating to the management of acute illness uncovered variation in certain aspects of acute illness management, and revealed a greater potential for misdiagnosis in general practice for people with acute illness. However, there is little available evidence to assess the extent of the problem, and more needs to be done to monitor the quality of acute care. As well as using value-for-money indicators and carrying out peer-reviewed audits of referral letters and case notes, measuring the quality of acute illness management requires the analysis of the data that is routinely collected in primary care.
It is important that practices look at the health status of those patients for whom the target is not being met and at the reasons for the exception. If these patients are not in contact with the practice, or are not taking medication as directed, it is important that the practice makes efforts to understand why this is the case and adapts its services to meet these needs. If these patients experience deterioration in their health, or go on to have an acute coronary episode, then for these patients the care provided by general practice cannot be considered high quality.

**Management of acute illness: key points**

- As with other conditions, appropriate and effective diagnosis and management are key aspects of high-quality care. The evidence suggests that GPs are more likely to make a misdiagnosis of acute illness compared to non-acute illness.

- There is evidence of between-practice variation in performance – for example, in the management of cholesterol in people with coronary heart disease and the management of blood pressure for those who have experienced a stroke or TIA.

- More needs to be done to monitor the quality of acute care – for example, through peer-reviewed audit of referral letters and case notes, and by reaching out to those patients whose acute illness is not being managed.
Managing long-term conditions

General practice plays a core role in the management of patients with long-term conditions, including long-term mental health problems. To examine the quality of care in long-term conditions management the inquiry commissioned work that focused on examining the following specific areas: arthritis, dementia, diabetes and mental health (Goodwin et al 2010a). The research also looked specifically at multiple co-morbidities, given their prevalence, and at the potential for general practice to be more proactive in identifying and managing patients with long-term conditions through a population-based approach.

Arthritis

Quality of care is currently highly variable and not always consistent with guidelines. For example, a recent study by RAND revealed how just 29 per cent of eligible patients for osteoarthritis treatment by a specialist had been provided with the care they should have received. This was the lowest figure in comparison to nine other conditions that the authors examined (Steel et al 2008). Research by Broadbent et al (2008) to assess the self-reported quality of care for 320 patients at various general practices showed a low level of patient satisfaction with the level of information they were provided about their condition (with a range of 17–30 per cent) and a wide-ranging set of views in terms of quality of treatment (with a range of 5–90 per cent).

A recent National Audit Office (2009) report that looked at the care of 1,200 individuals with rheumatoid arthritis found that less than 50 per cent were referred by their GP to

Figure 10 Percentage of people estimated to have dementia who are on a dementia register by PCT, 2007/8

Source: Alzheimer's Society (2009)
a specialist within three months – a figure that had not increased since 2003. The study also showed that half of those who had experienced a delay in diagnosis attributed this to their GP, while GPs themselves acknowledged some lack of confidence in their ability to diagnose rheumatoid arthritis. Other work has shown that people with the condition visit their GP an average of four times before being referred (Steward and Land 2009).

Dementia

Early diagnosis and intervention is important in improving the quality of life of people with dementia. While the vast majority of first diagnoses occur in general practice, the evidence shows that this often occurs late in the illness, or at a time of crisis, when the opportunities for managing the condition to maximise quality of life have passed.

There is evidence to suggest that many GPs are either unable or unwilling to recognise dementia symptoms, for a range of reasons including:

- an inability to differentiate symptoms that may be attributed to the natural signs of ageing and/or could be confused with other disorders
- the lack of specialist services to refer patients to
- the lack of training and/or time to make an adequate diagnosis
- the judgement that such individuals might cope better and feel less distressed if a formal diagnosis were avoided (Goodwin et al 2010a).

Figure 11  Percentage of patients diagnosed with dementia whose care has been reviewed in the past 15 months, 2009/10

Source: QOF 2009/10
Figure 10, p 62, shows the estimated proportion of people in England who have dementia compared to the actual number who appear on a dementia register in general practice. The figures suggest that between one-half and two-thirds of people in every PCT who are likely to have dementia will be left undiagnosed and/or left off the register, and so not identified as being in need of support.

Figure 11 on p 63 shows the percentage of patients diagnosed with dementia whose care has been reviewed in the past 15 months. Achievement rates by practice have averaged over 80 per cent across all practices since 2005/6, but there is considerable variation in performance with practices in more deprived locations being less able to achieve the target (although the gap has reduced over time).

**Diabetes**

General practice plays a pivotal role in the management of diabetes, and has made a significant contribution to its effective management. Many aspects of diabetes management have improved markedly in recent years, through better recording and ongoing management. This is illustrated in Figure 12 below, which examines the percentage of patients with diabetes, by PCT, in 2009/10, whose last measured HbA1c within the previous 15 months was 7 or less. The results show that average achievement in general practice is above 80 per cent, but that this varies across PCTs, from a low of just over 73 per cent to a high of nearly 90 per cent.

**Figure 12** Percentage of patients with diabetes in whom the last HbA1c is 7 or less (or equivalent test/reference range depending on local laboratory) in the previous 15 months by PCT, 2009/10
Despite these levels of performance, individual patients may not be getting all the recommended care to manage their diabetes. Figure 13, above, presents data from one practice showing that, while average delivery to diabetes patients of three single items in QOF ranged from 60 per cent to 73 per cent, only 36 per cent of these patients achieved the standard for all three QOF measures.

An international health policy survey of patients with severe illness in eight countries found that 67 per cent of adults with diabetes in the United Kingdom had received all four key diabetes services in the past year (as identified as important in diabetes management by the research team) (Schoen et al 2008). This compared favourably to the other countries in the survey where this ranged from a high of 59 per cent in the Netherlands to a low of 31 per cent in France.

**Mental health**

For people who experience depression or long-term mental health problems, high-quality care involves being supported by a planned system of ‘collaborative care’, which involves case management, systematic follow-up and improved primary–secondary care integration. High-quality care also requires sensitivity towards a patient’s perception of the cause and nature of the problem. The evidence suggests the need for a ‘strengths-based’ approach that both provides treatment but also seeks to aid recovery.
Improving the quality of care in general practice

Research suggests that GPs possess many of the right skills, but some lack the confidence, support or time to use them (Goodwin et al 2010a). Overall, there is considerable potential to improve the quality of care for people with mild-to-moderate depression in general practice, but clinical education and training must be undertaken alongside work to build collaborative care models with specialists, as well as tackling social attitudes and stigma.

For people with more serious mental health problems, it is recommended that GPs carry out regular reviews. Figure 14, above, shows the percentage of patients with psychoses who had had a review in the preceding 15 months. It shows that performance in PCTs ranged from 70 per cent achievement to close to 90 per cent, with mean achievement of 81.3 per cent. On average, PCTs did not achieve this target for 7 per cent of patients. Exception reporting is generally high on this indicator, with PCTs on average exception reporting 11.6 per cent of patients. Understanding the reason for these exceptions is important, in order to ensure these patients are not failing to maintain regular contact with services.

Figure 15, opposite, shows the percentage of patients on the mental health register who have been recorded in general practice as having an agreed comprehensive care plan between 2007/8 and 2009/10. The figure shows a steady improvement over time in the number of practices meeting the criteria, although there remains a significant ‘tail’ of practices where a large proportion of such patients do not have a documented care plan.
Co-morbidity

The impact of co-morbidity and multi-morbidity (having two or more long-term conditions) is profound. People with several long-term conditions have a markedly poorer quality of life, poorer clinical outcomes, longer hospital stays, and are the most costly group of patients that the NHS has to look after.

General practice plays a pivotal role in delivering high-quality care to people with multiple long-term conditions. These patients will often be in contact with many different professionals and services. General practice needs to work collaboratively with other care providers, sharing information across different teams and settings, and ensuring care is co-ordinated. For these patients continuity of care is particularly important, and many of the measures suggested below (see Continuity of care, p 83) would be applicable to patients with multiple long-term conditions.

To illustrate comparative performance in management of people with co-morbidity, a specific QOF measure examines the screening of people for depression as a consequence of their being on the diabetes or coronary heart disease registers. Figure 16, overleaf, shows the percentage of such patients in 2009/10 for whom case finding for depression had been undertaken in the previous 15 months. It reveals that the majority of practices achieved scores of above 90 per cent, albeit with a tail of poorer-performing practices.
Self-management

Supporting people to self-manage their care is a key component of successful outcomes for people with multiple long-term conditions. General practice can play an important role in this – for example, in ensuring that patients can access support services and groups in the community. Also, people with long-term conditions often need to make changes to their lifestyle and behaviours. Evidence suggests that in order to be successful, people need more than advice and admonishment (see the box opposite).

There are a number of factors that a practice might measure in order to assess the quality of self-management support:

- the proportion of patients with long-term conditions whose notes contain a record that they have been provided with written information about the condition at least once
- the proportion of patients with long-term conditions who have been referred for self-management support
- the proportion of patients who have access to self-management support
- the proportion of patients who have high levels of knowledge, skills and confidence to manage their condition – using, for example, the patient activation measure (see Hibbard et al 2004)
- whether the practice is implementing the NICE guidance on behaviour change.

Figure 16 Percentage of patients on the diabetes register and/or the CHD register for whom case finding for depression was undertaken in the last 15 months, 2009/10

Source: QOF 2009/10
The current state of quality in English general practice

GPPS data includes information on whether patients are receiving such support from ‘local services’ in order to help manage their long-term condition. On average 54 per cent of patients report receiving such support, but this ranges from only 30 per cent of patients in the bottom 10 per cent of practices to a high of 78 per cent in the top 10 per cent (see Figure 17 below).

### NICE guidance on behaviour change

NICE recommends interventions that motivate and support people to:

- understand the short-, medium- and longer-term consequences of their health-related behaviours, for themselves and others
- feel positive about the benefits of health-enhancing behaviours and changing their behaviour
- plan their changes in easy steps over time
- recognise how their social contexts and relationships may affect their behaviour, and identify and plan for situations that might undermine the changes they are trying to make
- plan explicit ‘if–then’ coping strategies to prevent relapse
- make a personal commitment to adopt health-enhancing behaviours by setting (and recording) goals to undertake clearly defined behaviours, in particular contexts, over a specified time
- share their behaviour change goals with others.


### Figure 17

**Percentage of patients who had support from local services to help manage long-term health condition, 2009/10**

Source: GPPS 2009/10
Population management

Population management represents a proactive approach to the management of people with long-term conditions. It involves attempting to identify individuals in local communities whose health is at risk of deteriorating, with the intention of preventing or slowing that deterioration. It is based on the theory that early intervention can reduce downstream utilisation, since reactive episodic care may identify only those who seek help when in crisis.

One way of assessing the extent to which patients are being managed effectively in the community is to study the number of ambulatory care sensitive (ACS) conditions. ACS conditions represent those for which hospital admissions could be prevented by interventions in primary and community care. For example, hypertension (blood pressure) is a long-term condition that can be treated outside hospital. With proper medication and management of care, most people should not need to be hospitalised for hypertension.

Figure 18, below, shows the rate of emergency admissions for 19 ACS conditions across London PCTs based on the first quarter of HES data between 2010 and 2011. The rates were standardised for age, sex and social deprivation. The results reveal more than a twofold variation in hospital admissions for ACS conditions (NHS Institute for Innovation and Improvement 2006–11).

Other research on ACS emergency admissions provides similar evidence of variation. For example, *The NHS Atlas of Variation in Healthcare*, published in November 2010 (NHS Right Care 2010), highlighted a fivefold variation among PCTs in the rate of emergency admissions of patients aged 18 and over with asthma.

The *GP Practice Index* (Dr Foster Intelligence 2010) has similarly analysed non-elective admissions for four ACS conditions:

**Figure 18** Emergency admission rates for all ACS conditions, London PCTs, 2010
The current state of quality in English general practice

- influenza and pneumonia
- diabetes complications
- chronic obstructive pulmonary disease (COPD)
- ear, nose and throat infections.

The study showed that there was significant variation between the 8,250 GP practices for which data was analysed. The report found that some 377,950 non-elective admissions in the four ACS conditions had occurred between July 2009 and August 2010, and that approximately £100 million could have been saved if patients had been managed effectively in the community.

It is important to stress that research into the causes of variation in ACS emergency admissions finds that the majority of such variation can be explained by socio-demographic factors such as age, race/ethnicity, deprivation, and geography (for example, see Purdy et al 2010). The key issue, therefore, is not the level of variation in ACS emergency admissions but the fact that these preventable admissions are so prevalent.

In general practice, QOF was designed to improve the management of long-term conditions and potentially reduce the numbers of patients being admitted to hospital. Dixon et al's (2010) research analysed the relationship between QOF scores in general practice and the rates of emergency admissions for seven ACS conditions: stroke, coronary heart disease (CHD), hypertension, congestive heart failure (CHF), diabetes, COPD and asthma. Their research concluded that emergency admissions for stroke and asthma were not significantly associated with the mean reported QOF achievement. However, lower mean QOF achievement for CHD, hypertension, CHF, COPD and diabetes was significantly associated with higher ACS admissions (Dixon et al 2010).

Interventions where positive effects have been reported on reducing emergency admissions include (Purdy 2010):

- continuity of care with a GP
- hospital at home as an alternative to admission
- assertive case management in mental health
- self-management
- early senior review in A&E
- multi-disciplinary interventions and telemonitoring in heart failure
- integration of primary and secondary care
- reducing readmissions through structured discharge planning
- personalised health care programmes.

So, the evidence suggests that there is an opportunity for general practice to play its part in improving the management of long-term conditions and other ACS conditions. As Goodwin et al (2010a) concluded, this implies a change in focus for general practice so that it works more closely with other primary and community care providers to improve care co-ordination and care integration. Under GP commissioning, reducing the numbers of preventable hospital admissions will become a key priority for general practice and its partners. Population management will become an important approach in achieving cost reductions without compromising on quality of care.

**Areas for quality improvement**

The research commissioned by the inquiry has identified a substantial amount of guidance on what constitutes high-quality care for people with long-term conditions (see the box overleaf). The evidence suggests that improvements in care for long-term conditions have indeed been made over the years – particularly in diabetes. However, the evidence also suggests that care is not reliably delivered to all patients with a
particular disease, nor does each patient necessarily receive all recommended care. This is particularly true for people with multiple conditions.

### Key markers of quality in management of long-term conditions in general practice

- **Evidence of practice registries** Practices need to establish registries for patients with long-term conditions, to support the management of all patients with chronic illness.

- **Evidence for proactive case finding** Proactive case finding across practice populations, through regular analysis of data with community nurses and other partners, appears important in enabling a better multi-professional understanding of practice populations, and so helps to target services at individuals in need of care.

- **Availability of practice-level data** Practices need to make practice-level information and data available, for effective population management.

- **Problem recognition, early diagnosis and appropriate swift referral for early intervention** These result in better management of people with long-term conditions, but the evidence suggests this is currently highly variable. Specialist support for many GPs is needed alongside more time during the consultation in making an effective diagnosis.

- **Rules-based care** There is a need for rules-based care, which involves clinicians being supported by information systems to help co-ordinate and streamline patient care across settings.

- **Patient information** Providing patients with information about their long-term conditions can be effective in helping them self-manage and/or prevent deterioration in illness.

- **Supported self-care** General practice should provide supported self-care and/or signpost patients to receive this.

- **Support for carers** Providing education and support to carers enables them to manage the long-term conditions of those they are caring for.

- **Regular follow-up appointments** There needs to be a system of regular follow-up appointments, and a system that monitors the percentage of patients who meet these criteria who are actually offered and receive one.

- **The planning process as a single point of entry** Using the planning process as a single point of entry to a range of services can help patients receive a more integrated service.

- **Case management** Targeted case management can improve outcomes for some people with long-term conditions.

- **Multi-disciplinary working** Working in a multi-disciplinary team is important in many aspects of care delivery for those with long-term conditions – for example, in having a single or co-ordinated assessment process or care plan, or in screening those with physical and mental health care needs.

- **Patient satisfaction** The quality of patient care is often considered less good for people with multiple long-term conditions, so practices need to measure satisfaction among those patients.

Source: Adapted from Goodwin et al (2010a)
The evidence suggests that quality of care could be significantly improved if there were a better understanding of long-term conditions among primary care professionals and a more proactive approach to care management. It is clear that responsibility for delivering high-quality care to patients should be shared across care settings and multi-professional teams, and that general practice has a core role to play as part of this continuum of care.

Goodwin et al (2010a) concluded that there were two key areas for quality improvement: the current knowledge and skills levels within general practice, and the need for care planning and care co-ordination that is integrated with services and professionals outside of general practice. These two points are explained below.

Knowledge and skill-mix in general practice
The evidence suggests that in order to improve quality of care for people with long-term conditions, one key factor is the ability for an early diagnosis, made in a general practice setting, and/or for a referral that leads to an appropriate and early intervention from a specialist. Care-planning skills must be included in the professional development of GPs and practice nurses in the future, so that they are able to:

- produce the care plan collaboratively with patients
- review the care plan regularly
- work sensitively and constructively with patients who are not meeting goals
- provide praise and motivation to patients who have achieved their goals.

Integrated care
The evidence suggests that general practices need to embrace specialist support during the consultation process, during care planning, and in ongoing care, in a way that makes patients feel like equal partners in their care, better supporting them to manage their own illness. However, there is a twofold problem: first, the lack of time, skills and capacity in general practice to make an effective diagnosis for all people with long-term conditions; and second, the lack of communication with, and availability of, specialist services.

It is unlikely that improvements in quality of care can be met without more fundamental structural changes to the way general practice operates and in order to ensure that practices are more closely integrated with the care and delivery of other health and social care providers.

Managing long-term conditions: key points

- Improvements in care for patients with long-term conditions have been made over the years, particularly for those with diabetes.
- However, the evidence suggests that recommended care is not reliably delivered to all patients – especially to those with multiple long-term conditions.
- There is significant scope for primary and community care providers to undertake more proactive preventative activities that can lead to earlier diagnosis and treatment, and the prevention of unscheduled hospital admissions.

Promoting health and preventing ill health

GPs and their practice teams have a crucial role to play in promoting health and preventing disease. The research we commissioned (Boyce et al 2010b) sought to
examine the role and effectiveness of general practice in health promotion and ill-health prevention in three key areas:

- childhood immunisations
- smoking cessation
- obesity.

Each of these is addressed in turn.

**Childhood immunisations**

Good-quality care in childhood immunisations can be directly measured by the vaccine uptake at a general practice level. There is high uptake of most childhood immunisations in England, but variations are common in most immunisation programmes – demonstrating the need to address variation and to target interventions at low-uptake groups (Boyce et al 2010b).

To illustrate, a study of MMR vaccination across 6,444 children in London showed that MMR uptake was highest among Asian children and lowest among white children (Middleton and Baker 2003). Another study has shown that one-third of children passing through a refuge for women, and who were victims of domestic violence, had incomplete immunisations (Webb et al 2001). In the 1999 national meningococcal C vaccine campaign, 33 per cent of children in public care did not receive the vaccine, compared with 14 per cent of children living at home (Hill et al 2003).

The size of a practice does not appear to impact on its ability to deliver childhood immunisation programmes. Lamden and Gemmell’s (2008) study of 257 general practices in Cumbria and Lancashire found no association between practice size and clinical

**Figure 19** Percentage of children with MMR uptake (first and second doses) by their 5th birthday, 2009/10

![Figure 19](image-url)
staffing levels. However, more research is needed to examine the causes of variation in immunisation (Boyce et al 2010b).

Figure 19, opposite, shows that across PCTs in England, on average 83 per cent of children had an MMR vaccination by their fifth birthday, ranging from 49 per cent in the lowest-performing PCT to 94 per cent in the highest-performing PCT.

Smoking cessation

The majority of GP practices tend to be reactive rather than proactive in responding to requests for help from patients in giving up smoking (Boyce et al 2010b). Figure 20, overleaf, provides comparative data for the percentage of patients with a range of specific conditions whose record shows that smoking cessation advice or referral to a specialist (where available) had been offered in the previous 15 months. The majority of general practices perform well in meeting the target, though there are a small proportion of poor-performing practices.

Obesity

Approaches to obesity reduction in general practice have been inconsistent (Boyce et al 2010b). While general practice is incentivised to record each adult patient’s weight following a QOF obesity indicator introduced in 2006, full adherence has yet to be achieved, and the impact on reducing weight has yet to be established. Boyce et al’s (2010b) research for the inquiry concluded that patients and GPs alike tend to believe that treating obesity should not be a priority in general practice, since it is a lifestyle issue that is a responsibility of the individual, rather than a medical condition or chronic illness to be managed.

There was also evidence to suggest that GPs remain hesitant to raise the issue of weight loss with obese patients if they feel that it will negatively impact their relationship with the patient (Michie 2007; Epstein and Ogden 2005). Less than 40 per cent of GPs regard pharmacotherapy and weight-loss surgery as effective (Ogden and Flanagan 2008), and GP practice staff state that they lack the expertise and resources to challenge obesity – particularly when it comes to childhood obesity (Turner et al 2009).

Areas for quality improvement

One of the challenges that general practice faces in meeting the quality agenda in terms of public health and ill-health prevention is the lack of evidence supporting the interventions that they could carry out. General practice, public health practitioners and academics all have the responsibility to work together to improve the evidence base, as well as to work in partnership in order to improve health and prevent disease.

GP commissioning raises a new set of challenges for public health and ill-health prevention, since it implies that general practice has a wider public-health role to play. It is essential that future contract negotiations discuss and assign responsibility for primary and secondary prevention. The QOF provided a stimulus to develop health promotion in many GP practices, and there has been a great deal of discussion about extending the coverage of the QOF to include other public health categories.

However, caution needs to be exercised when considering how such incentives should be used. Threshold payments, the focus on single clinical risk factors and poor evidence of effectiveness limit the overall effectiveness of incentive mechanisms.
Improving the quality of care in general practice

**Promoting health: key points**

- General practice has a crucial role to play in health promotion – especially in its new role as members of GP commissioning consortia.
- There is a need to target childhood immunisations at those groups whose uptake is low.
- Most general practices meet targets related to smoking cessation advice, but there is evidence that a more proactive approach in supporting patients may help them to quit smoking.
- Approaches to the management of people with obesity are inconsistent, and obesity is often seen as a lifestyle issue rather than as a priority for general practice.
- More evidence is needed for appropriate interventions in general practice.

**Figure 20** Percentage of patients with specific conditions offered smoking cessation advice or referral to a specialist in the previous 15 months, 2009/10

![Bar chart showing percentage of patients with specific conditions offered smoking cessation advice or referral to a specialist in the previous 15 months, 2009/10.](chart-image)
Non-clinical aspects of general practice

This section looks at aspects of general practice that are not clinical but that are nevertheless important dimensions of the quality of care as experienced by the patient. It discusses this by focusing on three factors:

- access to care
- continuity of care
- patient engagement and involvement.

Access to care

A range of factors contribute to whether patients feel they have good access to general practice care. The research we commissioned outlined a list of 23 different potential measures (Boyle et al 2010). These measures cut across three broad domains of quality of access:

- availability and proximity of general practice
- timeliness (speed of access)
- choice (ability to see a preferred doctor or nurse).

Availability and proximity of care

This can be measured in a number of ways. Here, we provide the numbers of GPs per 100,000 population by PCT – a simple measure that is often used as a key indicator of access nationally. As Figure 21 on p 77 shows, depending on where you live, there are wide...
Figure 22  Percentage of patients able to see a doctor fairly quickly, 2009/10

Figure 23  Percentage of patients able to see a doctor fairly quickly: intra-PCT variations by practice, 2009/10
Figure 24  Percentage of patients able to book ahead, 2009/10

Figure 25  Percentage of patients able to book ahead: intra-PCT variations by practice, 2009/10
variations in the numbers of GPs available – ranging from a low of 45 GPs per 100,000 people to a high of just over 80 GPs per 100,000.

**Speed of access**

The speed of access to general practice has been a focus of policy, with guaranteed waiting times to see a member of practice staff within 24 hours and a GP within 48 hours. GP systems can also be used to audit patient waiting times between arrival at the practice and being seen by the GP, or the proportion of clinics that start late.

Figure 22 on p 78 shows that, on average, 80 per cent of patients reported that they were able to see a doctor ‘fairly quickly’, ranging from 57 per cent in the lowest-performing practices to 97 per cent in the highest-performing practices. Figure 23 on p 78 shows the extent of variation between practices within three PCTs with different levels of average performance.

Figure 24 on p 79 shows that in 2009/10, on average, 69 per cent of patients reported that they were able to book ahead for an appointment with a GP. There was considerable variance in the spread of performance, with 42 per cent of patients in the lowest-performing practices and 94 per cent in the highest-performing practices. Performance on this measure has also been declining steadily since 2005/6, revealing that it has become harder for patients to book appointments in advance. Figure 25 on p 79 illustrates intra-PCT variation.

**Ability to see a preferred GP**

There is often a trade-off to be made between speed of access and access to a preferred doctor. A King’s Fund opinion survey undertaken in 2009/10 found that the systemic focus on speed of access had, to some extent, come at the expense of being able to see
the same and/or preferred GP (Goodwin et al 2010b). Indeed, improving care continuity was respondents’ top priority for quality improvement compared to speed of access, which was seen as the least important priority. The research evidence backs up these observations, since there is evidence to show that the ability to see a preferred GP has

**Figure 27** Percentage of patients able to see preferred doctor: intra-PCT variations by practice, 2009/10

**Figure 28** Percentage of patients satisfied with opening hours, 2009/10
worsened slightly since 2007. Moreover, there is considerable variation in the number of patients who are able to see their preferred GP.

In 2009/10, an average of 61 per cent of patients reported that they were able to see their preferred doctor, ranging from 28 per cent in the lowest-performing practices to 78 per cent in the highest-performing practices (see Figure 26 on p 80). Figure 27 on p 81 shows the variation between practices within three PCTs selected from among the lowest, median and highest-performing PCTs, demonstrating the opportunities for neighbouring practices to learn from each other.

Figure 28 on p 81 shows that the majority of patients are satisfied with opening hours. On average 79 per cent of patients reported satisfaction with this aspect of practice performance, ranging from 66 per cent in the worst-performing 10 per cent of practices to 91 per cent in the best-performing 10 per cent of practices. Figure 29, above, shows intra-PCT variation between practices in three selected PCTs with different average performance.

Areas for quality improvement

Overall, the research we commissioned concluded that most people, most of the time, report good access to care. However, there are wide variations evident across all dimensions of access. Moreover, speed of access appears to be less important to patients than choice of appointment or the ability to see a particular GP (Boyle et al 2010).

People’s preferences about access to care varies, and more work needs to be done to tease out how different patient groups value the various dimensions of access discussed above. What is clear is that any measure of access should not be applied in a one-size-fits-all way. Indeed, existing measures of access to general practice pre-suppose a traditional GP practice model of care at a time where the nature and type of care services, communication technologies and society’s preferences about access are changing. Retaining a range of measures to examine the broad picture may be the most appropriate
approach in this context, but at a local level quality improvement in access to care will be about meeting the needs of local patients.

### Access to care: key points

- Most people, most of the time, report good access to care.
- However, wide variations are evident across all dimensions of access suggesting that patients get very different experiences locally.
- Speed of access appears to be less important to patients than choice of appointment or the ability to see a particular GP.
- There is evidence to show that the ability to see a preferred GP has become more problematic in recent years.
- Since people’s preferences about access to general practice vary, retaining a range of access measures to examine the broad picture appears reasonable.
- General practice needs to reach out to all those in their local community who need care but who are not currently receiving it.

### Continuity of care

Continuity of care, in the sense of a patient repeatedly consulting the same doctor, and forming a therapeutic relationship over time, has often been described as an essential feature of general practice in England. However, there is another dimension of continuity of care – an approach that involves patients in making decisions about planning their own care, including referrals, helping them to navigate services and systems outside the practice, and developing a shared patient record that enables patient ownership and input.

Freeman and Hughes (2010), who led the inquiry research on continuity of care, describe these two aspects as relational continuity (seeing the same doctor) and management continuity (how care is managed effectively for the patient). Each of these is described below.

### Relational continuity

Relational continuity involves patients being encouraged (but not compelled) to establish a therapeutic relationship with one or more particular professionals in a general practice team. The previous evidence presented on access to care revealed this to be potentially more important to the preferences of GPs and patients alike than speed of access. Indeed, the evidence points to benefits to patients and clinicians that result from establishing and maintaining relational continuity as an essential feature of general practice.

Assessing the quality of relational continuity is clearly problematic, but general practice could use potential markers of quality to examine various dimensions of relational continuity, such as:

- the proportion of registered patients who report having a trusted relationship with a named GP
- the percentage of registered patients who have contact with the same clinician over 12 months
- the proportion of registered patients who report that they had sufficient time in the consultation
Figure 30  Percentage of patients rating their GP as good on giving enough time, 2009/10

Source: GPPS 2009/10

Figure 31  Percentage of patients rating their GP as good at listening, 2009/10

Source: GPPS 2009/10
Some of these markers of quality can be assessed using routine data from the GPPS. For example, Figure 30, opposite, examines whether patients felt the GP gave sufficient time during their consultation. In 2009/10, 88 per cent of patients reported they had sufficient time during the consultation, though the percentage score fell to 73 per cent in the worst-performing decile of practices. Figure 31, opposite, shows that the percentage of patients who rated their GP as good at listening to their concerns averaged 88 per cent, but ranged between 70 per cent and 96 per cent between the worst-performing and best-performing 10 per cent of practices.

The GPPS also asks the extent to which patients feel that doctors are good at treating them with care and concern. In 2009/10 there was considerable variance between the best-performing and worst-performing practices (see Figure 32 above).

There is some research evidence to demonstrate that longer consultations tend to enable the GP and patient to address the wider patient care agenda, although a shorter consultation can reach a similar outcome if the patient and doctor already know each other well and the patient feels able to communicate key personal information (Howie et al 1997, 1999). Evidence also suggests that GPs feel that relational continuity has declined due to the growing needs and demands of patients, and because of contractual incentives, such as QOF, that reward ‘technical care’ as opposed to its psychosocial components (Hasegawa et al 2005).

**Management continuity**

Management continuity involves the practice effectively co-ordinating the care for patients during the course of their treatment. As the research on the management of long-
term conditions concluded, management continuity is particularly important for the
good of care provided to those with multi-morbidity, who often require comprehensive,
personalised, holistic and co-ordinated care. Such care co-ordination includes offering
interpersonal continuity, so that patients know which professional is responsible for
co-ordinating their care and how to contact them, and GPs know which patients they
are responsible for. The GP and practice team can also help patients to reconnect with
services or systems when they experience discontinuities or fragmentation of care.

Few measures of quality that can be used to assess management continuity are readily
available, but a range of possible markers could be developed – for example:

- whether the practice has in place systems to identify patients who need care co-
  ordination
- the proportion of patients who need care co-ordination that have a named care co-
  ordinator or advocate to support their care
- whether the practice has in place systems for needs assessment, including single
  assessments for those with social care needs
- the proportion of patients with long-term conditions or complex needs who have a
  written care plan
- the proportion of patients whose written care plans are fully implemented
- whether the practice holds regular multi-professional meetings and case
  management reviews
- whether practice staff attend case meetings with professionals from other agencies
  when requested
- whether the practice has in place procedures for effective handover of care between
  staff, and implements this particularly around out-of-hours care, holidays, sickness,
  and between part-time professionals

**Figure 33** Percentage of patients who had discussion with a doctor or nurse about
how best to deal with a longstanding health problem, 2009/10
the proportion of patients who receive proactive follow-up after a significant life/
health event
whether there are shared care protocols and/or shared information flows, to ensure
the patient pathway is well managed.

As with relational continuity, evidence from the GPPS sheds light on some of these
quality issues. For example, Figure 33, opposite, examines the percentage of patients
who reported having a discussion with their doctor or nurse about how best to deal
with a longstanding health problem. On average, 87 per cent of patients reported having
done so. However, there were considerable variations, with 72 per cent of patients in the
worst-performing 10 per cent of practices compared to 96 per cent in the top 10 per cent
responding that they had.

Despite a policy commitment for everyone with a long-term condition to have a care plan
– since the evidence suggests that this improves co-ordination of care for patients – in
the GPPS only a very small proportion of patients (11 per cent) reported that they had
been told they had a care plan (see Figure 34 above). This may be because patients are
unfamiliar with the term ‘care plan’ or do not recognise their care plan as such, but either
way it indicates that there is a long way to go to meet the policy commitment.

Areas for quality improvement

The evidence presented to the inquiry suggests that continuity of care (both relational
and managerial) is an important but undervalued aspect of quality of care. There is ample
evidence to show how continuity of care could be significantly improved in the NHS,
and how and why this would improve patients’ experience of care. However, a better
understanding of the importance of continuity of care is needed so that it can become
prioritised or incentivised in general practice alongside other developments in health care.

Continuity of care is complex, subjective and dynamic, so it cannot be captured fully by a set of quantitative measures or reduced to a set of competences. However, it is important to try and capture at least part of its essence if it is to be valued as a dimension of quality (Greenhalgh and Heath 2010). Methods of assessing and promoting continuity of care in practice need to be developed – perhaps supported by a toolkit for practices.

**Continuity of care: key points**

- Relational continuity of care refers to patients seeing the same doctor or other clinical practitioner with whom they build a relationship over time. This is regarded as a priority by GPs and patients alike. However, the evidence suggests that quality of care in this area has deteriorated slightly in recent years.
- Management continuity of care refers to the business of co-ordinating care during the course of the patient’s treatment. There is a need to improve co-ordination of care, particularly for patients with complex and long-term care needs.
- Greater priority needs to be given to continuity of care and care co-ordination, and innovative ways need to be found to assess the quality of such care in practices, and between practices and other partners.

**Patient engagement and involvement**

There is wide variation in the way patients have reported their experience of involvement in decisions about care and treatment (Parsons et al 2010). For example, patients who described their ethnic group as white are more likely than those from other ethnic groups to say that they were ‘yes, definitely’ involved as much as they wanted to be in decisions about their care and treatment (see Table 11 below). Furthermore, older people were more likely than younger people to say that they were ‘yes, definitely’ involved (see Table 12 on p 90).

**Table 11: Patient involvement in decisions**

<table>
<thead>
<tr>
<th>Primary care survey 2008</th>
<th>Were you involved as much as you wanted to be in decisions about your care and treatment?</th>
<th>Were you involved as much as you wanted to be in decisions about the best medicine for you?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes definitely</td>
<td>Yes, to some extent</td>
</tr>
<tr>
<td>Self-defined ethnic group</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>White</td>
<td>72</td>
<td>24</td>
</tr>
<tr>
<td>Asian or Asian British</td>
<td>54</td>
<td>36</td>
</tr>
<tr>
<td>Black or Black British</td>
<td>57</td>
<td>33</td>
</tr>
</tbody>
</table>

Source: Picker Institute Europe 2009

A further illustration of variation in performance is provided in Figures 35 and 36 opposite, which examine patient feedback on whether the doctor had been good at explaining tests and treatments and involving them in decision-making. These findings from 2009/10 are similar to results for previous years in terms of both average performance and the variation in it.
Figure 35 Percentage of patients rating their GP as good at explaining tests and treatments, 2009/10

Figure 36 Percentage of patients who rate the doctor as good at involving patients in decisions, 2009/10
Table 12: Patient involvement in decisions by age and gender

<table>
<thead>
<tr>
<th>Primary care survey 2008</th>
<th>Men</th>
<th>Women</th>
</tr>
</thead>
<tbody>
<tr>
<td>'Yes definitely involved as much as wanted to be'</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>'..in decisions about your care and treatment'</td>
<td>58</td>
<td>66</td>
</tr>
<tr>
<td>'..in decisions about the best medicine for you'</td>
<td>50</td>
<td>53</td>
</tr>
</tbody>
</table>

Source: Picker Institute Europe 2009

On average, 77 per cent of patients rated their GP as good at explaining test and treatments, but this proportion ranged between 59 per cent and 88 per cent between the worst-performing and best-performing 10 per cent of practices. On average, 71 per cent of patients rated their GP as good at involving them in decisions about care, but this proportion ranged between 53 per cent and 84 per cent between the worst-performing and best-performing 10 per cent of practices.

Despite these variations in the levels of patient engagement, the research team concluded that, on the whole, patients report high levels of confidence and trust in GPs (Parsons et al 2010). Figure 37, above, shows that the majority of patients have confidence and trust in their GP (94 per cent). This variable shows much less variation than other indicators we examined, with over 80 per cent of patients reporting having trust and confidence even in the worst performing 10 per cent of practices.

Areas for quality improvement

Despite various strategies to promote patient engagement in general practice the evidence shows that patient engagement with general practice needs to improve. General practice, and the professional bodies that lead them, need to make a concerted effort to
develop a new strategy for patient engagement with a range of interventions, including health literacy, self-management support, universal patient access to medical records and the better use of patient experience and outcomes surveys that serve the purpose of improving the levels of patient engagement. As GP commissioning is taken forward, general practices should consider involving their patients in service development, evaluation and governance.

Listening to and involving patients and the public at a practice level are key to delivering high-quality services. This is different from involving patients directly in co-creating their health and care for example through personal budgets or shared decision-making. Practices need to involve patients and citizens in every level of the organisation. Meaningful engagement beyond those who have the time and inclination to attend open meetings will require practices to use technology and new media.

### Patient engagement and involvement: key points

- Patients report high levels of confidence and trust in general practice, but patients’ experiences of involvement in decisions about their care and treatment vary.
- Patients and carers remain poorly engaged in making decisions about their own health.
- More effort and attention in general practice needs to be placed in enabling patients to be engaged in decision-making and in supporting people to care for themselves.
- As GP commissioning is implemented, involving patients and the public in making decisions about services and in evaluating their success will be key to delivering high-quality services.

### General practice as part of a wider system of care

The final set of dimensions examined by the inquiry looked at those aspects of care where the role of general practice is more contested or less well defined, but where it is integral to the wider system of care. It addresses:

- end-of-life care
- maternity care
- health inequalities.

### End-of-life care

End-of-life care (EOLC) has historically been poorly organised, with large gaps in provision, depending on geography and diagnosis (Addicott 2010). Some of these gaps appear to be the result of confusion over roles and responsibilities, including those of the GP and general practice. Research has identified problems with out-of-hours care, monitoring and meeting patients’ preferred place of care, and in GPs’ confidence in communicating prognosis and care-planning discussions with patients (The King’s Fund 2009).

To make sure patients’ care needs and preferences are being met, all patients on end-of-life registers should have a documented care plan. To ensure that all stakeholders involved in patient care are aware of these care needs and preferences, these care plans should have been agreed by a multi-disciplinary team, including the GP, alongside other health and...
social care providers as locally relevant. Although this type of information is not routinely available, it can be collected and monitored through local audit.

The number of practices reporting regular multi-disciplinary case review meetings of people on their palliative care database is a QOF target. The evidence shows a steady increase in attainment over time, with nearly 85 per cent of practices achieving this measure in 2009/10. However, it does suggest that the basis for high-quality palliative care is not in place in 15 per cent of practices.

**Areas for quality improvement**

The delivery of EOLC in general practice requires quality improvements to be made in many areas of care including: out-of-hours care, patient monitoring, and meeting patients’ preferred place of care. The confidence of GPs in communicating prognoses and care-planning discussions with patients also needs supporting. General practice also needs to be better encouraged to:

- co-ordinate care across health and social care professionals
- promote continuity of GP care as patients’ conditions change (for example, when entering a care home)
- improving communication skills with patients and carers about the prognosis and care planning.

**End-of-life care: key points**

- There is confusion regarding the roles and responsibilities of general practice and other care providers in providing end-of-life care.
- Evidence suggests problems with out-of-hours care and meeting a patient’s preferred place of care, and that GPs lack confidence in communicating prognosis and discussing care planning with patients and their families.
- General practice needs to be encouraged to support the co-ordination of health and social care to people at the end of life and to promote care continuity.

**Maternity care**

Over the past 30 years, the role of GPs and general practice in maternity care has seen a dramatic decline, both in terms of involvement and skills (Smith et al 2010). The rise of professional midwifery has improved the quality of care that most pregnant mothers receive, and the evidence shows that mothers-to-be generally much prefer care provided by midwives with the professional skills to manage a normal pregnancy (Deverill et al 2010). However, the research we commissioned suggests there is a need to upskill GPs in maternity care and to develop a shared care approach with midwives (Smith et al 2010).

Very few practices fail to offer antenatal care and screening according to local guidelines. Between 2005/6 and 2008/9, the proportion of practices across England that achieved this remained at 98.7 per cent or more. Despite this recorded achievement, as measured in QOF, the analysis for the inquiry suggests there are a number of elements of care in which GPs could play a more active role in ensuring high-quality maternity services.
Areas for quality improvement

GPs should play an enhanced role in preconception, antenatal and postnatal care (but not intrapartum care). This would require GPs being adequately skilled to look after women safely, which would need some changes to their training. What is certainly true is that the current status of GPs in maternity care is in urgent need of clarification. The GP should be part of an effective team in which the roles, responsibilities and lines of communication are clear. Collaboration, co-operation, communication and competence are important characteristics of a high-quality service.

Maternity care: key points

- There has been a dramatic decline in the role of GPs and general practice in maternity care, in terms of both involvement and skills.
- There is a need to re-skill GPs in maternity care and to develop a shared care approach with midwives (except for intrapartum care).

Health inequalities

Health care (whether preventive or curative) should be provided on the basis of clinical need, regardless of personal characteristics such as age, gender, ethnicity, disability, socio-economic status or geographical location, and should aim to reduce differences in health

Figure 38 Percentage of patients with CHD and cholesterol 5.0mmol/l or less by deprivation quintile of practice, 2009/10
status, access to services and outcomes across population subgroups. Equality legislation also mandates requirements for equity.

General practice can play a key role in tackling health inequalities (British Medical Association 2010; Hutt and Gilmour 2010). Health inequalities can be defined as systematic and potentially remediable differences in one or more aspects of health, across populations or population groups defined socially, economically, demographically, or geographically. However, the research commissioned by the inquiry concluded that the majority of GPs were not currently equipped or motivated to engage with this aspect of health care. This was due to a lack of evidence, advice and incentive on how best to do so (Hutt and Gilmour 2010).

Hutt and Gilmour’s (2010) research uncovered numerous examples of health inequalities pertinent to general practice.

- Hypertension control has been poorly controlled in older age groups – especially in socially isolated males (Shah and Cook 2001).
- People from BME groups have been poorly served by mental health advocacy services (Newbigging and McKeown 2007).
- The treatment of depression, anxiety, schizophrenia, coronary heart disease and non-insulin-treated diabetes has been found to be higher in general practices in deprived areas (Moser 2001).

Many of the available indicators can be disaggregated at practice level by the various dimensions of inequality (for example, age, gender, ethnicity, disability and socio-economic status) to monitor equity of access and outcomes. The choice of indicators and the dimensions of inequality by which they should be disaggregated should be driven by the needs of local populations and circumstances.

**Figure 39** Emergency hospital admission rates per 100,000 practice population by deprivation quintile of practice, 2008/9
Figure 40  Elective hospital admission rates per 100,000 practice population by deprivation quintile of practice, 2008/9

Figure 41  Ratio of emergency to elective hospital admission rates, 2008/9
An assessment of 34 QOF clinical indicator scores over the first three years of the scheme suggests that the gap in performance between deprived and affluent areas has narrowed, though the poorest-performing practices were still to be found in areas of the highest deprivation (Dixon et al 2010). Figure 38 on p 93 illustrates the high levels of performance to be found within QOF across all deprivation quintiles on some measures.

Figures 39, on p 94, and 40, on p 95, show the difference in age–sex standardised emergency and elective hospital admission rates, by deprivation quintile. There is a clear and strong gradient in the median rate of emergency admissions by deprivation, with higher median rates in the more deprived practices. Rates of elective admissions also show a deprivation gradient, but it is less steep. Other research (Judge et al 2010) has found that there are persistent inequalities in elective surgery rates by deprivation, even after adjusting for need, and recent research has found variations in referral to secondary care for dyspepsia, hip pain and post-menopausal bleeding by deprivation quintile (McBride et al 2010). Figure 41 on p 95 also shows that the ratio of emergency to elective admissions is higher in the most deprived practices.

There are a number of auditable measures that can be used to assess whether or not practices are addressing issues of inequality – for example, if:

- the practice collects information on the ethnicity, first language and religion of patients
- the practice conducts regular equity audits by, for example, age, gender, ethnicity, disability and the socio-economic status of patients
- interpreter services are available for patients in different languages, as appropriate locally
- the practice team have received training in dealing with the specific cultural needs of the range of ethnic groups for which they care
- the practice runs services to reach socially excluded people on their registered list.

**Implications for quality improvement**

GPs working in areas of high deprivation face high levels of clinical demands, and have to deal with a number of complex and pressing concerns from patients. Resources and training should reflect this. Medical undergraduate training and GP training has the potential to actively equip future doctors with knowledge and skills that is specifically relevant for tackling health inequalities. Health inequalities should continue to be co-ordinated nationally, in a framework that allows for local needs to be addressed.

Changes to the configuration of the NHS should ensure that tackling health inequalities remains a high priority. In particular, there needs to be a greater focus on health inclusion and on reaching out to the most vulnerable in society, who remain unregistered with general practice and lack access to care. GP commissioning consortia will have an important role in tackling inequalities in health care provision, and in tackling inequalities in the health of local populations. They will need good data for monitoring and tackling both types of inequalities.

### Health inequalities: key points

- Practice-level variations in achievement of quality targets in general practice tend to show that, although the differences are small, poor-performing practices are in areas of the highest deprivation.
- GPs working in such areas are faced with a challenging case-mix of patients and high levels of demand. Practices in deprived areas might benefit from additional support and investment.
There is evidence of inequalities in provision of general practice care for some patient subgroups.

GP commissioning consortia will have a key role to play in assessing the needs of local populations and in tackling health inequalities.

There needs to be a greater focus on health inclusion and reaching out to those in local communities who remain unregistered with general practice and lack access to care.

**International comparisons**

It is often asserted that English general practice is the 'envy of the world'. Indeed, there is strong evidence internationally suggesting that the more effective health care systems are those with a stronger orientation to health promotion, disease prevention and providing accessible and universal primary and community care-based services (Goodwin 2008).

For example, one comparison of 12 industrialised nations showed that those countries with a strong primary care base achieved better outcomes, and at lower cost, than countries in which the primary care base was weaker (Starfield 1998). The core features that were consistently associated with good or excellent primary care included the comprehensiveness and family orientation of generalist-led primary care practices, within a wider system in which governments regulated the distribution of health care resources through taxation or national insurance. England and Wales rated top both in practice and system characteristics.

**Table 13: UK ranking in international comparison of health systems by dimension of quality**

<table>
<thead>
<tr>
<th>Country</th>
<th>AUS</th>
<th>CAN</th>
<th>GER</th>
<th>NETH</th>
<th>NZ</th>
<th>UK</th>
<th>US</th>
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<tbody>
<tr>
<td>Overall ranking (2010)</td>
<td>3</td>
<td>6</td>
<td>4</td>
<td>1</td>
<td>5</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Quality care</td>
<td>4</td>
<td>7</td>
<td>5</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>6</td>
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<tr>
<td>Effective care</td>
<td>2</td>
<td>7</td>
<td>6</td>
<td>3</td>
<td>5</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Safe care</td>
<td>6</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>7</td>
</tr>
<tr>
<td>Co-ordinated care</td>
<td>4</td>
<td>5</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td>Patient-centered care</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>6</td>
<td>1</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Access</td>
<td>6.5</td>
<td>5</td>
<td>3</td>
<td>1</td>
<td>4</td>
<td>2</td>
<td>6.5</td>
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<td>Cost-related problem</td>
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<td>3.5</td>
<td>3.5</td>
<td>2</td>
<td>5</td>
<td>1</td>
<td>7</td>
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<tr>
<td>Timeliness of care</td>
<td>6</td>
<td>7</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>4</td>
<td>5</td>
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<td>Efficiency</td>
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<td>6</td>
<td>5</td>
<td>3</td>
<td>4</td>
<td>1</td>
<td>7</td>
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<tr>
<td>Equity</td>
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<td>5</td>
<td>3</td>
<td>1</td>
<td>6</td>
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<td>7</td>
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<tr>
<td>Long, healthy, productive lives</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Health expenditures/capita, 2007</td>
<td>$3,357</td>
<td>$3,985</td>
<td>$3,588</td>
<td>$3,837*</td>
<td>$2,454</td>
<td>$2,992</td>
<td>$7,290</td>
</tr>
</tbody>
</table>

**Country Rankings**

- 1.00–2.33
- 2.34–4.66
- 4.67–7.00

Note: * Estimate. Expenditures shown in $US PPP (purchasing power parity).

Source: Calculated by The Commonwealth Fund based on 2007 International Health Policy Survey; 2008 International Health Policy Survey of Sicker Adults; 2009 International Health Policy Survey of Primary Care Physicians; Commonwealth Fund Commission on a High Performance Health System National Scorecard; and Organisation for Economic Cooperation and Development; OECD Health Data, 200 (Paris: OECD, Nov. 2009); Davis et al (2010)
A series of comparative studies published by the Commonwealth Fund on the performance of international health systems has ranked the United Kingdom consistently high overall, in comparison to others (see Table 13 on p 97). The United Kingdom’s comparative performance shows that it has performed strongly in terms of access to care, equity, effectiveness and patient safety. However, it is comparatively poor in terms of timeliness of care (for example, in patients’ ability to see a preferred doctor) and in terms of patient centredness (for example, patient involvement in decisions) (Davis et al 2010).

Understanding variations and identifying gaps in the quality of care

From the evidence presented above, what overall assessment can be made about the state of the quality of care in English general practice and what ‘quality gaps’ exist where improvements to the quality of care could be made?

A summative assessment of the evidence by dimension of quality examined during the inquiry is provided in the box below. In this section we seek to draw out from this evidence where we think the key opportunities lie for improvements in the quality of care, in terms of four key areas:

- examining the causes of variation
- ensuring that recommended care standards are met
- responding to patient experiences
- engaging with the wider system of care.

**Summative conclusions about the current state of the quality of care in general practice by dimension of quality examined during the inquiry**

**Diagnosis** A variety of factors can lead to delays and errors in diagnosis, but there is not enough evidence to ascertain the scale of such problems in general practice. Retrospective audit and significant event audit is essential to assess and improve the quality of diagnosis.

**Referral** There are wide variations in the rate of referrals between practices. The evidence suggests that a significant proportion of referrals made in general practice may not be clinically necessary. However, the appropriateness of a referral is specific to the context and it may be difficult to decrease unnecessary referrals without also decreasing necessary referrals. There is scope for improvement in other aspects of referral quality:
- ensuring that timely referrals are made (especially in cancer care)
- the quality of referral letters
- getting patients to the right destination
- involving patients in decisions about referral options.

**Prescribing** Variation in the level of prescribing between general practices is common and widely reported. Much of the practice-level variation in prescribing results from differences in the clinical case-mix of patients and socio-economic factors. There are opportunities for quality improvement to address inefficient or inappropriate prescribing – for example, through:
- reducing medication errors
- improving adherence to what is prescribed
- standardising prescribing practices for certain treatments, such as the prescription of low-cost statins.
Acute illness  Appropriate and effective diagnosis and management of acute illnesses are key aspects of high-quality care. The evidence suggests that GPs are more likely to make a misdiagnosis of acute illness compared to non-acute illness. More needs to be done to monitor the quality of acute care – for example, through peer-reviewed audit of referral letters and case notes, and to reach out to those patients whose acute illness is not being managed.

Long-term conditions  Improvements in the care of patients with long-term conditions have been made over the years, but the evidence suggests that recommended care is not delivered reliably to all patients – especially those with multiple long-term conditions. There is significant scope for primary and community care providers to undertake more proactive preventive activities that can lead to earlier diagnosis and treatment and can prevent unscheduled hospital admissions.

Health promotion  There is a need to target childhood immunisations at those groups where uptake is low. Most general practices meet targets related to smoking cessation advice, but there is evidence that a more proactive approach to supporting patients may help people to quit smoking. Approaches to the management of people with obesity are inconsistent, and obesity is often seen as a lifestyle issue rather than as a priority for general practice. More evidence is needed for appropriate health promotion interventions in general practice.

Access  Most people, most of the time, report good access to care. However, there are wide variations across all dimensions of access. Since people’s preferences about access to general practice vary, retaining a set of measures to examine the broad picture appears reasonable. General practice needs to reach out to all those in their local community who need care but who are not currently receiving it.

Continuity of care  Enabling patients to see the same doctor and other clinical practitioners with whom they build a relationship over time is regarded as a priority by GPs and patients. There is evidence to show that the ability to see a preferred GP has become more difficult in recent years. There is a need to improve co-ordination of care, particularly for those patients with complex and long-term care needs. Greater priority needs to be given to continuity of care and care co-ordination, and innovative ways need to be found to assess the quality of such care in practices, and between practices and others providing public services.

Patient engagement and involvement  Patients report high levels of confidence and trust in general practice, but patients’ experiences of involvement in decisions about their care and treatment vary. Overall, patients and carers remain poorly engaged in making decisions about their own health. More effort and attention in general practice needs to be placed on enabling patients to be engaged in decision-making, and in supporting people to care for themselves. As GP commissioning is implemented, involving patients and the public in making decisions about services and in evaluating their success will be a key aspect of delivering high-quality services.

End-of-life care  There is confusion about the roles and responsibilities of general practice and other care providers in providing end-of-life care. Evidence suggests that there are problems with out-of-hours care and meeting a patient’s preferred place of care, and that GPs lack confidence in communicating prognosis and discussing care planning with patients and their families. General practice needs to
Examining the causes of variation

From the evidence presented here it is clear that quality varies widely on many dimensions of care between general practices. In the knowledge that such wide variations exist in the quality of care it becomes imperative to identify and address variation where this is unwarranted. We believe that general practice and GP consortia must do this to improve the quality of care for patients, to maximise health outcomes, to minimise inequalities, and to ensure value for money. As the BMA has argued:

There is insufficient emphasis on trying to understand the reasons for variation between practices, or in offering patients an explanation for this.

(British Medical Association 2009)

More sophisticated analyses are needed to explore whether observed variations in how different GP practices organise and deliver care can be justified on clinical grounds. For example, case-mix adjustment can be applied to practice populations in order to create practice-level severity-adjusted referral rates. One such system – the Johns Hopkins Adjusted Clinical Groups (ACG) case-mix adjustment system – has been used to examine variations in prescribing between practices (Omar et al 2008). This type of approach can be used to pinpoint the instances where variation persists and does indeed need to be addressed.

As we have shown, observed variations in specialist referral rates are due to a range of factors of which clinical need is but one. Local variations in service availability, GP perceptions of risks and skills, and patient preferences can make a difference to the appropriateness of a referral in any given context. There is, therefore, no ‘right rate’ of referral. In this area of care, data on variations should be used as a way to examine in more depth whether particular referrals were appropriate or not. Crude rates of prescribing need to be treated in a similar way.

On many of the dimensions of care that the inquiry has examined, we have not been able to adjust for need or to assess the quality of care against defined standards, necessary for the purposes of comparative judgement. Rather, we have highlighted the variations
in the performance of practices, or PCTs, in order to identify where the potential for improvement lies.

Ensuring that recommended care standards are met

The evidence presented to the inquiry suggests that there is considerable scope for improvement in ensuring that all patients receive the recommended care, as defined in clinical best-practice guidance. Where patients are not receiving care in line with best practice or are receiving some but not all elements of recommended care, the quality of care may be described as suboptimal. Clinicians must still be able to vary care from a protocol or guideline given particular clinical or patient characteristics but the reasons for doing so should be recorded and used to learn and adapt the protocol in a dynamic process of reflection. Examples where clear opportunities to improve quality of care include:

- **prescribing** Not all GPs and general practices prescribe in line with standards of best practice. There is a need to standardise prescribing practice for certain treatments where there is clear evidence for efficiencies – for example, in the prescription of low-cost statins.

- **long-term conditions** Care is not delivered reliably to all patients with long-term chronic illnesses, nor does each patient necessarily receive all recommended care. This is particularly true for people with multiple conditions, but we have also identified this to be the case for diabetes, where the incentives provided to general practice to manage patients are far stronger.

- **preventable emergency admissions** The prevalence of unscheduled hospital admissions for conditions that could have been prevented suggest there is potential to manage patients better in primary care.

The need to ensure that care standards are met also applies to a range of activities that cannot be examined through routine data, but need to be explored through local audit and peer review. Clinical guidelines and protocols are increasingly automated and we look in the next chapter at ways in which data and information can be used to support general practices to close ‘gaps’ in the quality of care and ensure patients routinely and reliably receive recommended care in line with best practice.

Responding to patient experiences

Patient experience data can also be used to judge the quality of care comparatively without the need for sophisticated systems of adjustment. However, as happens within the GPPS, there may be a need to weight the data to adjust for any response bias particularly if numbers of respondents are small. Otherwise, patient experience is an important source of comparative data for general practices to use locally to benchmark performance of practices and to track improvements over time.

The evidence presented to the inquiry suggests that there are wide variations in patient experiences in terms of access to care, continuity of care, and patient engagement. This suggests that patients get very different experiences locally, and that more effort and attention in general practice should be put into improving the experience of patients in these areas. For example, patients and carers remain poorly engaged in making decisions about their own health, and more could be done to support patients to enable patient choice, provide care continuity and support self-care.
Engaging with the wider system of care

A final key conclusion to be drawn from the evidence is that general practice will need in the future to engage more directly with other care providers to improve quality. Better standards of care would be gained from a focus on developing forms of integrated, co-ordinated and shared care between general practices and other care providers. This is particularly true for people presenting in general practice with complex symptoms and/or in co-ordinating care for people with long-term chronic and mental illness, to those at the end of life, and in maternity care. A key emerging theme is the need for those working in general practice to better co-ordinate and/or integrate the care and services they provide with other care providers, including a revitalised relationship with patients themselves.

Conclusions

The inquiry concludes that the quality of care in English general practice is generally good across most dimensions of care. However, the lack of longitudinal data makes it difficult for the inquiry to come to any definitive judgement as to the pace at which the quality of care has been improving. Moreover, there are wide variations in performance and gaps in the quality of care. Practices that perform poorly compared to others will need to be challenged to improve and, where appropriate, supported to do so. Where the level of quality falls below acceptable standards, it is important that further action is taken to improve quality.

Many of those working in general practice may not be aware of the variations in performance and of the gaps in the quality of care that we have highlighted. We believe that an important first step in addressing quality improvements in general practice is to create awareness among GPs and their colleagues of the extent of these variations and gaps. This would help motivate them to explore the reasons that these exist, and to identify where there is room for improvement. Transparency is vital, since every practitioner has a professional duty to demonstrate to colleagues, and to patients, what they are doing and how well they are doing it. This will require professionals to be more open to scrutiny by their peers and by the public.

Most general practices have responded positively to the challenge to improve quality when they have been made aware of standards of performance. For example, the majority of practices score well on QOF, and have put in place changes to meet access targets and offer longer opening times. Indeed, many innovative practices have been at the vanguard of developing and implementing quality improvement programmes. However, where there is evidence that quality of care could improve, practices should be expected and supported to take action to improve the quality of services.

Two challenges emerge. The first is to create an environment in which practices strive for excellence and continuously seek to improve and deliver care reliably to all patients. The second is to broaden the focus of quality improvement beyond the narrow areas that have dominated performance measurement (namely, access) to include other important aspects of quality, such as continuity and the therapeutic relationship – even though these might be harder to quantify.

Since high-quality care requires general practice to play an increasingly important role in co-ordinating care across multiple providers, there are significant opportunities for general practice in England to improve how it relates to the rest of the system of care. This should also be encouraged to work with general practice.

We have argued that more needs to be done to make those working in general practice aware of the need to improve quality of care. However, many of those working in general practice already know they could do better for patients but feel disempowered to do anything
about it. They find that the many initiatives intended to improve quality do not in fact support them in this regard. So, in the next chapter, we examine approaches to promoting, supporting and embedding a culture of quality improvement within general practice.

Key points

- The majority of care provided by general practice is good. However, wide variations in performance and evidence of gaps in quality of care suggest that there is significant scope and opportunity for improvement.

- In judging comparative performance based on rates of variation it is important to determine whether such differences can be justified; for example, more data need to be adjusted to take account of case-mix differences.

- More needs to be done to make those working in general practice aware of these variations in quality and to understand how much of this is unjustified.

- More needs to be done to ensure that where unacceptable standards of care exist, these are addressed so that a better and more consistent standard of care can be delivered to patients. Practices that perform poorly compared to others will need to be challenged to improve and, where appropriate, supported to do so.

- There is considerable scope for improvement in ensuring that all patients receive all their recommended care as defined in clinical best-practice guidance; for example, in the prescription of low-cost statins and in delivering recommended care to people with long-term chronic illness.

- Significant potential exists to reduce the number of emergency admissions for conditions that could have been managed in primary care.

- There are wide variations in patients’ experiences in terms of access to care, continuity of care, and patient engagement. Patients remain poorly engaged in making decisions about their own health and more could be done to support patients to make choices, to be engaged in decision-making, and to care for themselves.

- There is considerable scope to improve the quality of care co-ordination for patients with long-term chronic and mental illnesses, for those at the end of life, and in maternity care. Links between general practice and other services need to be strengthened in areas where patients with complex problems receive care from multiple providers.