

Discussion paper

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Quality improvement in general practice



An Inquiry into the Quality of General Practice in England

Quality improvement in general practice

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The views expressed are those of the authors and not of the panel

Contents

1 Introduction	3
2 Background	4
Paradigms of quality	4
What is continuous quality improvement?	5
Evidence of effectiveness	8
The current position in general practice	9
3 Barriers to adopting quality improvement	12
Presentation of quality improvement	12
General practitioners	12
General practice	14
The NHS environment	14
Professional leadership	15
4 Recommendations: promoting sustained quality improvement	17
Predisposing, enabling and reinforcing factors	17
Multi-level actions	18
Actions for government	18
Actions for regulatory bodies	19
Actions for professional bodies	20
Actions for GP commissioning consortia	21
Actions for GP practices	26
References	28

1 Introduction

Over the past 20 years there has been a growing awareness of the need to improve quality across health care and general practice, driven by a need to reduce inequalities in health care and the need to effectively translate evidence into practice and by the changing expectations of patients and carers.. However, until now the activity to address this need has often been variable.

This paper reviews approaches to quality improvement and their current usage in general practice, examines the barriers to adopting new quality improvement methods and the factors that promote it, and makes recommendations for action at multiple levels of the health system to nurture and support improvements in quality in general practice. The paper draws on published literature as well as the authors' experience in training and coaching general practice teams in quality improvement.

The views contained in this paper are those of the authors, and do not necessarily represent the view of the NHS Institute for Innovation and Improvement or the Department of Health.

2 Background

This section provides an overview of what we mean by quality in the context of health care, introduces the concept of continuous quality improvement, considers the evidence regarding effectiveness, and reviews the current position in general practice.

Paradigms of quality

For some time, there has been a drive to improve quality in health care and in general practice. However, the quality improvement approaches used by different practices and commissioners have been variable. They include national approaches for large-scale change, such as collaboratives, as well as more regional and local approaches.

These approaches have either focused on particular areas, such as access, or have comprised initiatives focused on training in improvement methodology. Indeed, the new general practitioner contract has aligned incentives and remuneration to quality through the Quality and Outcomes Framework (QOF). In health care, improvement activity has generally been divided into two types: improvement focusing on clinically led improvement, and improvement focusing on quality from a management perspective(1). The two may share common themes but are often seen as discrete parallel activities.

Quality from a clinical perspective has traditionally been influenced by the craft-based model, which regards health care as an enterprise shaped chiefly by well trained and highly autonomous individual clinicians, with individual performance being the main determinant of quality. The variation of structures in general practice, where many GPs often work in a degree of isolation, perpetuates this perspective that doctors operate like 'autonomous artisans' (2). Our own experience of providing training to general practice teams confirms that this perspective still prevails among the clinical community – particularly among doctors.

However, the craft-based model has come under increasing challenge in recent decades. For example, Donabedian, speaking as a doctor himself, presented quality as having a number of dimensions, of which technical skill was only one (3). It also included other aspects, and promoted a systems-based approach, with the structure-process-outcome model of quality of care, which has been the basis for much work in health care quality. Berwick, too, is a prominent physician who has worked internationally to introduce a more systems-focused paradigm into medical practice (4).

Initiatives arising out of the evidence-based medicine movement have resulted in a number of developments to improve clinical quality. These include evidence-based clinical guidelines, care pathways and clinical governance structures.

- **Clinical guidelines** provide an opportunity to translate research evidence into practice, but they 'will not address all the uncertainties of current clinical practice and should be seen as only one strategy that can help improve the quality of care that patients receive'(5).
- **Care pathways** 'aim to facilitate the introduction into clinical practice of clinical guidelines and systematic, continuing audit into clinical

practice: they can provide a link between the establishment of clinical guidelines and their use'(6).

- **Clinical governance** has become a statutory duty and 'as part of local arrangements for clinical governance, all NHS organisations are required to have a comprehensive programme of quality improvement activity that includes clinicians participating fully in audit'(7).

Clinical audit is 'the component of clinical governance that offers the greatest potential to assess the quality of care routinely provided for NHS users – audit should therefore be at the very heart of clinical governance systems'(7). However, the impact of clinical audit has been variable, and Berwick has called for a move towards 'total quality management (TQM), a collection of approaches to quality, efficiency, and leadership' (4). It has been proposed that introducing more general theories of organisation change and industry-based approaches may be more effective in delivering quality improvement in health care.

In spite of the proliferation of evidence, guidelines and care standards, research consistently demonstrates that one of the central challenges of improving quality in general practice is getting guidelines into practice.

What is continuous quality improvement?

Continuous quality improvement (CQI) and related terms, such as total quality management, have come to describe a paradigm for systems change that, in UK health care, is now generally referred to simply as 'quality improvement' or 'improvement'. This comprises a set of values and tools for setting goals and planning, implementing and measuring change. The components that are most influential in health care stem from the work of quality gurus such as Deming (8) and Juran (9), who worked primarily within manufacturing industries.

While there are differences between these contexts and the health care context, a number of common principles have been identified that can be applied to health care including general practice (10). These include the following.

- **Culture** *A culture of quality should exist throughout the organisation. Quality should be prioritised over other issues and every member of staff should be involved in delivering and improving quality.*
- **Aims** *The needs of the customer or patient are paramount, with the key aim being delivery of quality as perceived by the customer.*
- **Collaboration** *Teamwork, evidenced by joint learning, planning and service delivery, is critical to the organisation's work.*
- **Training** *Specific tools and techniques are employed to improve quality, rather than intuition and consensus alone. As with any science, there is a need to train staff to apply these.*
- **Anti-perfectionism** *It is never assumed that ideas for service improvement will be perfect. Even seemingly excellent ideas are tested and refined through practical implementation before being fully adopted. Similarly, care is never judged to have become perfect.*

Quality is presented as a journey, requiring one to be always asking new questions and finding new solutions.

- **Measurement** When assessing processes and outcomes, extensive use is made of data, to identify areas needing improvement and evaluate the impact of changes.
- **Small steps** The use of small pilots or 'tests of change' (11) is used to implement innovations as a means to refine plans through identifying and removing problems before wide-scale roll-out.
- **Standardisation** Ad hoc customised solutions are sometimes necessary, but standardised approaches to similar problems are preferred, in order to benefit from measurement, refinement, teamwork and economies of scale.

Arising from these principles, a science of improvement has emerged, providing a suite of tools and techniques for planning and implementing change. Some tools are based on theoretical frameworks, such as Lean Manufacturing, Six Sigma and the Model for Improvement, whereas others are more pragmatic (1). Each framework has a unique focus and addresses slightly different problems. However, each seeks to help staff with the challenge of getting evidence or innovation into practice reliably and efficiently, and it is common for organisations to adopt aspects of more than one framework in their quality improvement endeavours. They are described below.

- **Lean** Lean Manufacturing seeks to improve the quality and efficiency of processes, and the satisfaction of staff and customers, through eliminating waste and unnecessary activity. It has been described as 'a way of streamlining the patient journey and making it safer, by helping staff to eliminate all kinds of waste and to treat more patients with existing resources'(12). Widespread gains have been proposed by its proponents (13) (14)(15), and there is evidence that some primary care trusts (PCTs) are beginning to use it (16).
- **Six Sigma** This framework uses a process or pathway-oriented approach to identify and minimise aspects of care that are unreliable, inefficient or ineffective. It places a strong emphasis on reducing inappropriate variation in how care is delivered, and places the needs of the patient above that of the system or staff. It is ideally suited to improving the quality and efficiency of high-volume processes. Its use in health care is becoming increasingly prevalent. Its use is particularly advocated in combination with Lean (17), as the two complement each other in their approaches of improving flow and reducing variation.
- **The Model for Improvement** The Model for Improvement (11) is a framework for planning and implementing change. It emphasises:
 - the value of clear goals
 - measurement of processes, outcomes and unintended consequences
 - small testing cycles to refine solutions before widespread roll-out.

Changes are introduced in a controlled way, with frequent measurement and rapid feedback, in order to identify aspects of change ideas that need refining and improve them before they are rolled out across the organisation.

Although this requires a disciplined approach, proponents hold that undertaking small-scale tests of change using Plan-Do-Study-Act (PDSA) cycles reduces waste and staff dissatisfaction, while reducing the time it takes for a new way of working to deliver consistent results.

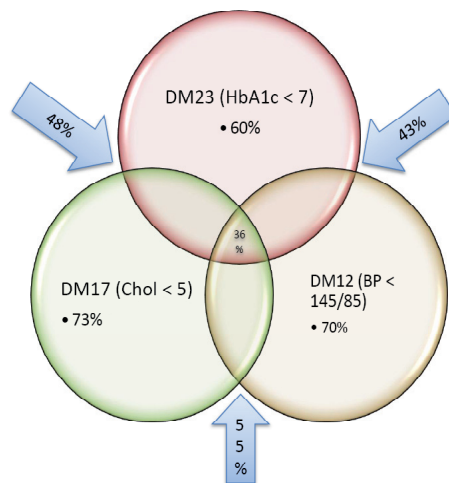
There are some overriding features of all these frameworks – in particular, their use of data and visual communication.

Using data to drive improvement

All improvement frameworks make extensive use of data to evaluate needs and opportunities, refine solutions and monitor outcomes. Sometimes this prompts the gathering of new data, but it can also involve new ways of analysing and presenting existing data. Two examples that we have found helpful in general practice are the bundle approach and statistical process control.

The bundle approach aggregates performance data on a number of related measures. It assesses success in terms of performing well on all measures, rather than considering each measure singly. The result is to create an impetus for improvement, as the use of multiple single measures often provides an impression of better performance than is actually the case. Figure 1 presents an example from one practice's diabetes data. It shows that while average delivery of three single items in QOF ranged from 60 per cent to 73 per cent, only 36 per cent of patients achieved the standard for all three.

Figure 1: Use of the bundle approach to measure performance in diabetes care

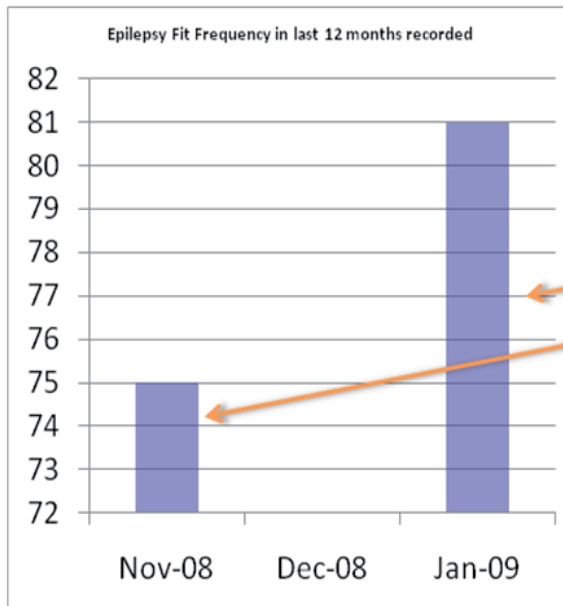


Source: NHS Institute for Innovation and Improvement, Learning Team

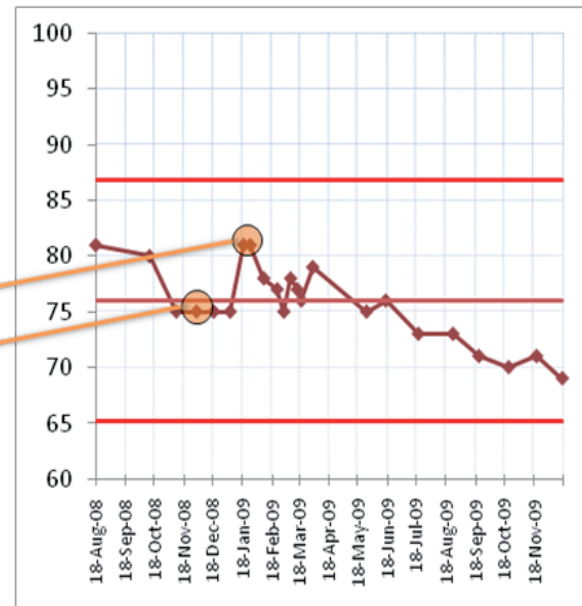
Statistical process control also presents existing data differently for greater impact. Figure 2 shows how, as a result of using periodic audits of large samples, one GP practice falsely concluded that it had significantly improved its recording of the frequency of patients' epileptic fits. The graph on the right presents the same data sampled more frequently, resulting in the conclusion that care had not significantly improved, and might even be worsening. Methods like this allow a more evidence-based approach to handling normal variation in data, and allow staff greater insight into actual performance.

Figure 2: Use of statistical process control to understand actual performance in epilepsy

Great Success !



Or is it more complex?



Source: NHS Institute for Innovation and Improvement, Learning Team

Using visual communication

Included in all quality improvement frameworks are techniques to make it easier for staff to engage with information about how they are performing. Extensive use is made of visual means to present plans and data, using standardised methods designed for specific needs, such as:

- showing linkages between multiple improvement projects
- measuring wasted staff time
- illustrating inefficient movements in the workplace
- demonstrating variation over time and between items
- highlighting high-impact aspects of care.

Experience in other health care settings, and in early adopter GP practices, indicates that these are highly effective means of engaging and enthusing staff in service improvement.

Evidence of effectiveness

The introduction of these new approaches to quality improvement in health care has been accompanied by debate about which is most effective. The literature suggests that there is limited evidence underpinning the improvement interventions reviewed (18). However, they also cite the complexities involved

in objectively reviewing a heterogeneous set of interventions that are applied in a heterogeneous set of contexts (19). It is therefore 'difficult to argue that there is a definitive body of knowledge about any single approach, and where an approach does not appear to work there are often methodological issues about the evidence to support the assertion' (1).

Walshe argues that little further knowledge is to be gained by researching which approach is most effective, and that further research should be directed at identifying the determinants of effectiveness (20). He also suggests that implementation is the key success factor, regardless of the quality improvement initiative, and that 'organisations are likely to achieve more by selecting an approach to quality improvement and then persevering in its implementation than by repeatedly switching from one approach to another'(19).

The current position in general practice

There is no data available regarding the use of quality improvement methodologies by general practices in the United Kingdom. However, an insight can be gained from the experience of quality improvement trainers at the NHS Institute for Innovation and Improvement. As part of the Leading Improvement in Patient Safety training programme, these trainers have provided GPs from across England with training in the use of quality improvement. The data and experiences gleaned during this programme are presented here.

In 2009 these we distributed a survey to 135 general practice staff attending a safety-improvement training event (Leading Improvement in Patient Safety (LIPS)). We received responses from 98 (73 per cent) delegates, 87 per cent of whom were GPs. During the course of training, we had the opportunity to discuss the issues highlighted with many delegates.

Values and culture

The results from our survey indicated that, even among this self-selected group of innovative practices, there was room for improvement in practice culture. Respondents completed the Manchester Patient Safety Framework (MaPSaF)(21) to rate their perception of the maturity of their practice's culture with regard to patient safety. MaPSaF rates organisational culture according to the priority given to identifying and improving safety problems, the extent to which the whole team is included, and the effectiveness of solutions. Although intended to measure attitudes and practice with regard to patient safety, MaPSaF's constructs are very closely related to the determinants of an effective quality improvement culture.

The five levels of cultural maturity are as follows:

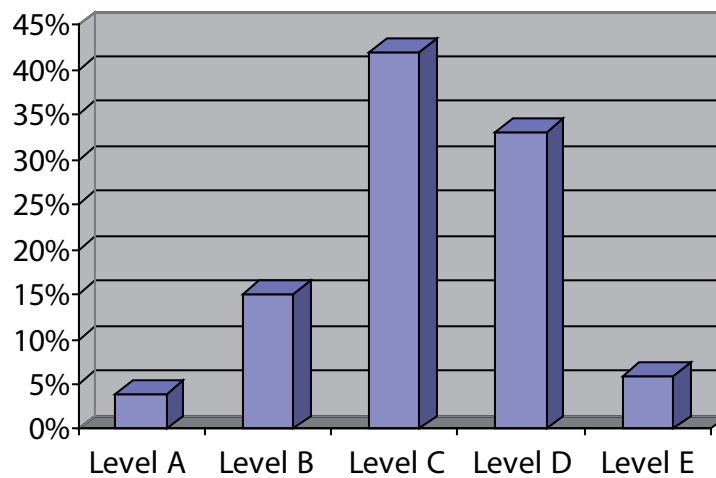
- 1. pathological** organisations with a prevailing attitude of 'why waste our time on safety?' and have little or no investment in improving safety
- 2. reactive** organisations that think about safety only after an incident has occurred
- 3. bureaucratic** organisations that are very paper-based, and where safety involves ticking boxes to prove to auditors and assessors that they are focused on safety

4. proactive organisations that place a high value on improving safety, actively invest in continuous safety improvements, and reward staff who raise safety-related issues

5. generative organisations in which safety is an integral part of everything that they do. In a generative organisation, safety is truly in the hearts and minds of everyone – from senior managers to frontline staff.

As Figure 3 shows, 39 per cent of staff believed their practice had a proactive and inclusive culture. Given that, anecdotally, most practices find that non-GPs give lower scores, these results are likely to be an overestimate.

Figure 3: MaPSaF ratings of cultural maturity in innovative GP practices



Source: NHS Institute for Innovation and Improvement, survey of 98 general practice staff, 2009

Further results from this survey indicate cultural deficiencies in many practices. Table 1 presents the results of questions about activity specific to patient safety, indicating the limited extent to which it was built on an inclusive and systems-focused culture. The majority of respondents had not held any discussion with staff about safety culture, and did not include all relevant staff in discussing safety incidents. The majority of their improvement solutions focused on reminding staff of best practice rather than redesigning systems.

Table 1: Cultural evaluation of general practice

Does your practice have a statement of mission or goals regarding patient safety?	25% 'yes'
Has your practice held a team discussion about your patient safety culture in the past two years?	49% 'yes'
What proportion of Significant Event Audits resulted in changes in systems or processes?	38%
What proportion of Significant Event Audits involve all practice staff?	38%

What percentage of quality/safety projects in your practice is led by people other than GPs? 32%

Source: NHS Institute for Innovation and Improvement, survey of 98 general practice staff, 2009

Skills

Most GPs have received formal training in the use of traditional audit to measure and improve care. However, a common observation among GPs is that, since the advent of QOF, the way they apply this tool has changed. Today, the majority of audits relate only to QOF, and clinicians say they are feeling disengaged from the audit agenda. Around 5 per cent of GPs on the LIPS programme had heard of PDSA, but almost none had used it in practice. A very small number were aware of other improvement frameworks, such as Lean and Six Sigma, but none had used them.

When clinicians and managers were asked about their non-use of tools they had encountered, the commonest reason cited initially was a lack of time. However, further questioning revealed deeper issues, with many people unaware of the rationale for using one improvement method over another, and most identifying cultural barriers in the practice.

It is important to remember that the GPs referred to here are those who have chosen to attend an innovative improvement training programme. They are what Rogers referred to as 'innovators and early adopters' (22), and their experience, awareness and attitudes are unlikely to be representative of those of the majority of GPs.

Following this broad overview of quality improvement and its implications for general practice, we move on to consider the various barriers that prevent quality improvement methods being adopted more readily within general practice.

2 Barriers to adopting quality improvement

There is much to commend the adoption of quality improvement culture and tools in general practice. However, there are reasons to believe that it will not be straightforward. Indeed, there are a number of barriers to GPs implementing these new ways of working. In this section we identify several of these, drawing on the small research literature on the implementation of improvement methods in general practice, our own interpretation of learning from the Primary Care Collaborative, and our personal observations of the attitudes, skills and experiences of GPs.

Barriers to the adoption of quality improvement may be found in perceptions of quality improvement, and within GPs, GP practices, the NHS environment and the national professional leadership agenda.

Perceptions of quality improvement

One of the strengths of quality improvement as a paradigm is that it encompasses many different techniques and tools that are applicable to a diverse range of situations and problems. Another is that although some improvement concepts have arisen from pragmatic or even ad hoc attempts to describe and improve organisational performance, all have been refined and framed along more scientific lines. Thus, it is not unreasonable to refer to the 'science of improvement', which draws on theories and insights from psychology, sociology, statistics, engineering and management, and encompasses a heterogeneous collection of methods for change. However, from the perspective of the GP, the multiplicity, diversity and technicality of much writing and training in improvement methods may be deeply unappealing.

Our experience has been that many GPs are reluctant to engage with ideas that they perceive as belonging too much to the domain of the professional manager. Those who object to a suggested new way of working derived from the improvement world often refer to it pejoratively as 'management speak'. This echoes the view of Richard Smith that descriptions of the principles and processes employed in improvement 'may sound annoyingly theoretical' (23).

Paradoxically, when GPs are first introduced to the details of some improvement approaches, they often have difficulty accepting the premise that small and practical changes to seemingly mundane aspects of care can achieve anything worthwhile. Doctors' training and daily experience appears to lead them to expect effective solutions to be complex, often depending on highly specialist knowledge and uncommon individual effort.

General practitioners

Certain attributes of GPs themselves can represent barriers to the implementation of improvement methods. For example, their attitudes, expectations and skills may present a challenge, as identified below.

- **Attitudes towards quality of care** Despite the drive to improve quality in health care and in general practice, some GPs still hold an ambivalent attitude to the notion of further advances in assessing and improving quality – particularly to the idea that new opportunities to improve should continually and proactively be sought. This attitude is

expressed quite often to us, as improvement trainers, as well as in the medical press (24).

- **Lack of a systems mindset** There is a tendency for doctors to hold a world view whose individualism and person focus is at odds with that of most improvement methods. The socialisation of doctors during their training promotes values of personal dedication, linking an individualistic approach to decision-making and problem-solving focusing on outcomes for the patient. Traditional postgraduate learning approaches (such as vocational training, continuous medical education and peer review) reinforce this focus on the individual (25). In contrast, improvement methods employ collectivist approaches to learning, delivering and shaping care. They inhabit a world view that 'reframes performance from a matter of [personal] effort to a matter of [system] design' (4). At least initially, this may be an affront to many GPs.
- **Expectations regarding roles in the practice** A number of authors have commented on the challenge presented by many GPs' expectations that, notwithstanding the need to employ teams to deliver care, they as the owner-manager should be involved in shaping most, and approving all, decisions about how care is organised. In contrast, improvement methodologies advocate a potentially contentious democratisation of knowledge, skills and authority in order to assess and change systems and processes in the practice (8) (13) (26).
- **Beliefs about the value of collective approaches** Related to the previous point, a further challenge is presented by the individualistic approach to decision-making and problem-solving adopted by many GPs. Traditional medical learning approaches (such as vocational training, continuous medical education and peer review) reinforce the focus on the individual (25).
- **Skills in quality improvement** It is reasonable to expect that almost all GPs in the United Kingdom have acquired skills in traditional medical audit. However, training in the use of continual improvement measurement techniques is not widely available for GPs, and, as far as we are aware, does not feature in the skills taught on any vocational training scheme in the United Kingdom. Of the innovative GPs attending the NHS Institute's safety training programme, approximately 10 per cent are aware of methods for small-scale tests of change and continual measurement, but only about 5 per cent report using them.
- **Skills in change leadership** Implementing new ways of learning, working and improving care in a GP practice requires skills in understanding, motivating and leading teams, as well as in planning, tracking and evaluating organisational strategies. Some individuals appear naturally adept at leading change in teams. However, 96 per cent of innovative GPs attending NHS Institute training in the past year report one of their chief unmet learning needs to be how to engage and lead their colleagues in new ways of working.

GP practices

Further barriers to implementing new quality improvement methods are presented by the culture, capability and capacity of some GP practices.

- **Culture** The literature supports our personal observation that it is vital for quality improvement activities to involve the whole practice team, with visible support from doctors. However, studies of introducing these methods to general practice have encountered hierarchical, doctor-dependent cultures that can stifle improvement (27)(28). Lack of support from just one GP can have a devastating effect on an improvement effort. Similarly, delegates attending NHS Institute training events on safety improvement report that, on average, 65 per cent of their significant event meetings involve only the GPs. Furthermore, some research suggests that non-GP members of the practice team who are unused to being involved in planning or assessing improvement may be anxious about assuming greater responsibilities (28).
- **Capability** Although this has not been studied specifically, it is reasonable to expect that GPs are not the only members of the practice team to have received little or no training in the techniques of quality improvement. Training staff in new skills for measuring, planning and improving quality would represent a considerable investment for practices, most of which have little or no spare capacity.
- **Capacity** Most GP practices are very small in comparison to the industrial settings from which continual improvement methods originated and the hospitals in which they are increasingly being adopted. Concerns about a lack of time to undertake any new activity are very prominent in the minds of many GPs when presented with ideas about quality improvement.

Proponents of quality improvement assert that once these approaches are embedded into an organisation they are both more effective and more efficient, but this is rarely how it appears to a GP first hearing about improvement. What is more, to the majority of practices, the need to acquire, disseminate and hone new skills – together with restructuring of organisational structures and processes – is likely to represent considerable ‘pump-priming’ costs. Initiatives reported in the research literature have generally involved a number of days’ training, practical project support and ongoing coaching for GPs and their teams (28)(29)(30)(31). Without other incentives, this will be unappealing to many GPs.

The NHS environment

Within the immediate NHS environment of general practice, current deficiencies in the availability of training and the influence of incentives structures and competing priorities present possibly the biggest barriers to implementing new quality improvement methods.

- **Training opportunities** There is a large unmet need for training and facilitation in continual improvement methods among general practice staff. However, our experience is that there are very few staff in PCTs and strategic health authorities able to facilitate improvement

in general practice, and even fewer training opportunities for GPs and their teams. The need to acquire a new mindset, learn new skills and apply them in practice makes self-directed learning a less appealing method than direct training. As a result, there is little chance for the majority of practices to access appropriate training at present.

- **Commissioning and incentives** The Quality and Outcomes Framework (QOF) has undoubtedly improved the quality of care for a number of important conditions managed within general practice (32) (33). However, its place as the chief means by which the NHS defines quality of care in general practice leaves little room to incentivise other quality-related activities. Furthermore, both the reliance on externally imposed quality objectives and the use of periodic large-scale measurement for comparison against benchmarks have the effect of stifling approaches that proactively seek continual small improvements and encourage local staff ownership of the problem and the solution.
- **Revalidation and registration** The forthcoming introduction of new systems to evaluate the performance of GPs and their practices may, at least initially, further reinforce a reductionist approach towards quality of care. The need for these schemes to provide assurance about minimum standards may continue to constrain the quality agenda within a benchmarking mould, leaving little incentive for practices to seek to exceed the expectations set by targets and average performance. However, as discussed below, the Royal College of General Practitioners (RCGP) has laid the seeds of more aspirational approaches, and revalidation and registration may not be such barriers to quality improvement after all. They could translate into important levers.
- **Competing priorities** The NHS is entering a period of unprecedented financial constraint during which other agendas are likely to suffer and new activity is unlikely to be approved. Some authorities and leaders are enthusiastically making the case for adopting quality improvement methods as a means to improve efficiency. However, many managers are likely to struggle to resist the temptation to take less enlightened routes to cutting costs. Within GP practices, the transfer of responsibility for commissioning health services may make other, optional, new activity seem unappealing for some time to come.

Professional leadership

Many of the barriers described above are cultural and attitudinal, and it is unlikely that they will change significantly without clear leadership from prominent figures and organisations in general practice. In order to successfully embed new ways of thinking and working, many GPs will need to embrace a different kind of professionalism, in which their identity is defined in more interdependent terms, acknowledging more explicitly the contribution of systems and teams to effective patient care. There will always be a minority of early adopters for new ideas, who need little or no leading in this type of endeavour(22). However, the current medico-political climate and the priorities of national professional bodies are not well aligned to promoting quality improvement.

It is encouraging that new quality initiatives at the RCGP are promoting a focus on team performance and learning organisations [34]. However, it seems likely that more will need to be done if large numbers of GPs are to embrace a new quality improvement agenda.

3 Recommendations: promoting sustained quality improvement

Successfully promoting quality improvement and embedding it within mainstream general practice is likely to need a broad package of activity, enacted at different levels of the NHS and sustained over several years. This requires an environment that predisposes, enables and reinforces the adoption of a continual quality improvement paradigm. This section presents our recommendations for action by national, regional and local bodies, as well as by practices themselves.

Predisposing, enabling and reinforcing factors

The recommendations below are intended to serve as predisposing, enabling and reinforcing factors in the sustained application of quality improvement in general practice. These overarching concepts are explained below.

Predisposing factors

Action is needed to persuade the majority of GPs that quality improvement is necessary and important. Recent years have resulted in a moderate increase in the amount of performance data collected about general practice. However, the use of benchmarking against average performance, combined with the generally high stated satisfaction of patients, may have created the impression that there is little room for improvement in practices' care. Aspects of care falling outside QOF have been generally neglected.

A key part of introducing a new movement for improvement will be to gather data, in order to evaluate care in broader terms and compare performance between practices and over time. This should be informed by a clear consensus on which values should inform care, and agreement about what is meant by 'quality' in general practice. It will be important to include patients, carers and other providers of health and social care in building this consensus, and to begin the dialogue soon, at local and national levels.

Once the vision is clear, the government, the NHS Commissioning Board and others can use data about performance to raise awareness among GPs and create an impetus for improvement – a so-called 'burning platform for change' (a crisis that is either natural or engineered to encourage change). Committed, confident and skilled leadership will be needed, at local and national levels to build dialogue and data that promote new ways of thinking and improving, in order to embed the values of the 'learning organisation' within GP practices.

Enabling factors

General practices will need training, coaching, encouragement, time and money in order to obtain and deploy new skills in improving safety, quality and efficiency. At a national and regional level, the government and other key players will need to enact a vision for improvement by creating appropriate incentives structures, together with the provision of training, and data from trusted sources. They can also employ professional and practice accreditation to promote learning and improving values in individuals and teams.

Reinforcing factors

A key challenge will be to embed quality improvement into the culture of GP practices and ensure that progress is sustained. The government will need to create opportunities, structures and incentives that reinforce continual improvement. These should include systems for transparent sharing of data about performance with patients and the public, and, crucially, among peers at a local level. These should be supported by structures that promote regular sharing of ideas and experience between practices, and an incentives environment that rewards continual improvement. Finally, for the minority of practices that perform poorly, the government needs to put in place governance arrangements that provide for effective action.

We now move on to look at specific recommendations aimed at specific actors in the field of quality improvement.

Multi-level actions

Within general practice, there is a need for culture, structure, skills and processes of care to be more fully aligned with a vision of putting patients first and pursuing excellent care. The scale of change required is so great that there will need to be changes in the environment within which practices operate, as well as specific incentives, training and support at practice level.

Actions for government

This review is published at a time of considerable change in the NHS. The recently published White Paper *Equity and Excellence: Liberating the NHS* (35) contains proposals for shifts in priorities, power and structures within the NHS. Certain aspects of these may create some of the predisposing, enabling and reinforcing factors necessary for widespread uptake of quality improvement in general practice, as follows.

- **A reduced emphasis on processes of care** This could provide an opportunity for practices to take a fresh look at the care they provide, re-examining its safety and quality outside, as well as inside, the QOF framework. With fewer mandates regarding the fine details of care, practice staff may be more likely to consider creative new solutions to addressing patients' needs. However, defining appropriate outcome measures for general practice may prove a considerable challenge.
- **A devolution of the majority of commissioning to general practice** Although overall spending on the NHS may remain static, demands are likely to continue to rise, creating a greater sense of urgency in the efficiency agenda. Until now, this has attracted considerable interest in hospitals but this has not been the case in general practice. However, with practices taking greater responsibility for the NHS budget it is expected that this will change, and that GPs will increasingly seek ways of redesigning services to improve productivity.
- **The grouping of GP practices into local consortia** The proposed establishment of local GP consortia may provide an opportunity to create a new improvement-promoting environment for general practice that is more professionally led than has often been the case under practice-based commissioning. Giving GPs themselves

more responsibility for evaluating and shaping health services may predispose them to new consideration of systematic approaches to improvement.

- **The freedom to redesign the local health economy in patients' interests** Opportunities are likely to exist for consortia to improve quality and efficiency through large-scale service redesign. Some of this will involve greater integration of staff traditionally employed by acute or community trusts, or the transfer of care from hospitals into the community. It will be important to clarify whether ministers are willing to allow this to happen, even where it may result in reductions in the overall need for hospital services.
- **The responsibility of consortia for the performance of member practices** Consortia are likely to become the first port of call for issues of clinical governance and practice performance. This responsibility could provide an opportunity to establish a local culture of peer review, accountability and support within which quality improvement could flourish.

Nevertheless, it should not be taken for granted that the proposed changes in the NHS will deliver the benefits highlighted above. To fulfil their potential, certain issues will need to be addressed at a national level, including:

- the historic relative under-investment in primary care
- the lack of advanced quality improvement and leaderships skills in general practice
- the relative under-development of clinical governance in general practice
- the need for GPs to invest time in their new commissioning role
- ineffective relationships between GPs and local managers in some areas
- the challenge of building positive partnerships between practices where those partnerships are mandated rather than voluntary
- concerns about employment regulations forcing consortia to take over the employment of the same cohort of staff currently involved in commissioning for PCTs.

The government's willingness to engage with professionals in developing the details of the proposed changes is to be welcomed. It will be important to maintain this engagement, and for professionals and patients to be seen to be influential in shaping the proposals.

Actions for regulatory bodies

Regulatory bodies (including the NHS Commissioning Board, the Care Quality Commission, Monitor and the General Medical Council) have an opportunity at a national level to shape the environment for quality improvement created by the structures, regulations and incentives for assurance and governance in general practice. As previously discussed, revalidation of doctors and registration of practices already seem to be acting as drivers for GPs to begin thinking differently about safety and quality. The potential of large

national programmes (such as GMC revalidation and CQC registration) to drive cultural change should not be underestimated – especially when opportunities are taken to build them on clear evidence and the consensus of national professional leaders.

To help promote quality improvement, regulatory bodies need to:

- take a joined-up approach to national frameworks for assurance, governance and incentives within general practice, to provide a clear and consistent message regarding the importance of continuing to improve standards of safety, quality and efficiency
- put arrangements in place to provide the training and practical support for leadership and quality improvement likely to be needed by GP consortia
- make available sufficient funds early on, to allow the investment in training and new quality-support systems in general practice
- adopt an evidence-based approach when selecting outcome measures for evaluating general practice – particularly as much of their activity is aimed at improving patients' health a long way in the future
- discuss incentives carefully with the profession – in particular, ensuring that incentives frameworks promote continual improvement, rather than simply benchmarking to average performance or minimum standards
- consider how best to ensure that patients become meaningful partners in evaluating and improving their health care. To avoid tokenistic or inappropriately populist patient engagement, proposals need to take into account the research evidence about how patients assess their experiences and respond to health care performance data.

Actions for professional bodies

We welcome the fact that a number of national professional bodies are already engaged in discussing how consortia might operate. At a time of upheaval and uncertainty, continued professional leadership is vital. In view of the extent of change on the horizon for GP practices, and the need for cultural change to promote a renewed quality improvement agenda, we recommend that the professional bodies carry out the following:

- continue, together, to shape the details of the reforms being proposed in the NHS
- promote professional values of excellence and putting patients' best interests first – acknowledging that, while standards of care in the NHS are good, there is widespread variation and room for improvement
- become involved in leading a process to agree what is meant by quality of care, and to establish the values on which changes in care should be based
- promote greater involvement of patients as partners in evaluating and improving their health care, and find more opportunities to ally themselves with patient and public representatives and promote such partnerships at local level throughout the NHS

- use their influence and expertise to ensure that skills in leadership and quality improvement are disseminated rapidly within general practice, to allow consortia and practices to engage in new quality improvement activities as soon as possible.

GP commissioning consortia

The key recommendations for commissioning consortia are to:

- build effective relationships
- establish vision and values for improvement
- involve patients as partners in evaluating and improving care
- lead a culture of improvement and innovation
- use information to drive improvement
- create opportunities for engagement and sharing
- invest in skills
- invest in quality improvement time
- establish a quality improvement support team (QIST)
- incentivise improvement in every practice
- establish clear and strong clinical governance.

Each of these is discussed in detail below.

Building effective relationships

If consortia are to engage member practices in measuring and improving the safety and quality of care, they will need to build a foundation of open and trusting relationships between member practices. Once positive relationships are in place, creating a culture of co-operation and respect, the necessary structures and systems for quality improvement and clinical governance will operate more effectively. If consortia are not built on a relational culture, there is a risk that a bureaucratic culture will predominate, stifling collaboration and innovation, and making member practices much less likely to share ideas and expertise (which will be necessary to drive new quality improvement activity).

Trust will be a particularly key issue. This is because in order to be effective, consortia will need to enjoy a new level of 'followership' as well as leadership. Practices will need not only to share information among themselves, but to accept the lead of the consortium in certain aspects of prioritisation and development. Whatever the level of democracy the consortia seek in their decision-making processes, many decisions will need to be binding on member practices – but, ideally, without onerously bureaucratic means being employed to enforce them. This type of culture will require practices to create and maintain unusually strong relationships with each other, so that they relate to the consortium as members of a team.

Consortium leaders will need to adopt an approach to leadership that is primarily relational and improvement-promoting, rather than managerial and standards-imposing. One of the central challenges for consortia in improving quality and safety will be to hold in balance the sometimes

conflicting requirements of governance and improvement. Governance will be necessary, but its focus on comparing performance against standards and benchmarks promotes regression to the mean, and stifles innovative practice. Improvement, on the other hand, requires an approach that is both more permissive and exhortational, promoting a culture in which practices are encouraged and empowered to aim for higher-than-average performance. Consortia will require expertise in governance and improvement alike, along with highly skilled leadership to employ them together.

It will also be helpful to maintain an openness to ideas and challenge from external sources. Consortia will be able to garner considerable expertise within a relatively short space of time. However, they will benefit from continuing exposure to new ideas and the latest evidence from other fields, such as acute care, public health, local authorities and management science. It will be important for consortia to build relationships early on with organisations that can provide a source of complementary expertise and challenge, and to create processes to ensure that new ideas and evidence are continually evaluated and incorporated within member practices. This should include proactive partnerships with local authorities and other health and social care providers in the locality.

Establish vision and values for improvement

Quality improvement provides a paradigm and tools for sustainable improvement in structures and processes of care. However, it does not dictate what the goals of improvement should be. This Inquiry has already identified aspects of care that are not measured routinely in general practice but are nonetheless important. Quality improvement tools can be used to help improve anything that can be measured reliably, but the decisions about what to improve will be determined by the shared values of the community of practices in a consortium. So, an environment that is conducive to high-quality care will need to take account of the need to agree and disseminate clear vision and values, and to align structures, capacity and skills with those guiding principles.

Involve patients as partners in evaluating and improving care

Quality improvement encourages a focus on driving change that benefits patients. For this reason, involving patients in evaluating health needs and health care performance will be an essential part of the improvement strategies for the consortia. This will help ensure that the vision and goals of improvement activity are sufficiently focused on patients' best interests, and that change will be targeted at achieving excellent, rather than merely adequate, performance.

The lack of patient and public involvement is one of the greatest risks to progress in improving quality and safety(36). A 'continuum of patient influence' ranges from complaining, at one end of the spectrum, to full participation and involvement, at the other. Bate and Robert have suggested that this spectrum be extended to incorporate experience based co-designing of services(37), and a growing number of UK providers are adopting the experience-based design approach (38).

Patient choice of primary care provider may stimulate improvements in the quality of care. Patients do not currently seem to exercise choice particularly

extensively. It has been argued that the choice agenda may widen inequalities (39), and some have proposed limiting the degree of choice and facilitating choice decisions for patients (40).

There is limited evidence to support interventions that promote patient involvement in improving safety(41). For example, there has been much work done in empowering patients through the use of patient-held records (for example, in long-term conditions), but there is no clear evidence that this initiative improves quality of care (42) (43) (44). The evidence is also unclear about how much might be gained by greater patient self-care, although this is another potential benefit of increasing patients' involvement in their care.

Lead a culture of improvement and innovation

Building a culture where GP practices are comfortable to continually challenge the status quo and seek opportunities to provide better care to patients will require committed and skilful leadership within consortia. Consortium leaders will need to seize every opportunity to demonstrate this vision, though plans for the consortium's priorities and activity. They will also need to devote time to listening to staff in member practices, in order to understand the different perspectives, agendas and needs that exist already, before engaging in dialogue regarding new ways of thinking and working.

Consortia will need to base their approach to improving the safety and quality of care on a firm understanding of human factors and systems thinking. Beginning with the premise that most staff are committed, well trained and hard working will encourage a focus on improving structures and systems of care rather than relying on reminders of best practice and exhortation to improve personal performance (45)(46)(47). This paradigm is likely to be more motivating for practice staff and more effective at achieving improvements. However, our experience suggests that for many GPs this is not a natural world view, and care and patience will be required to help GPs develop systems solutions to improvement challenges.

Consortium leaders will need to make use of enabling and reinforcing factors in order to encourage GPs to engage in new quality improvement activities. When designing the environment of incentives and rewards within the consortium, this is likely to mean attending to drivers such as professional commitment, job satisfaction, fear of increased workload and a desire to maintain income.

Use information to drive improvement

Consortia will need to obtain much more information about local health needs and practice activity than has ever been collected before, in order to evaluate opportunities, identify unacceptable variation, reduce waste and monitor improvements. The reduced focus on mandated micro-measures of care processes under QOF is likely to provide an opportunity to measure a wider range of issues that may have been neglected in recent years. New metrics could be employed to cover patient safety, continuity of care, communication and barriers to efficient working. This would be likely to enthuse staff and benefit patients.

The increased use of measurement for improvement will require new skills in data-analysis techniques, and consortia are encouraged to attend to this as a matter of urgency.

Create opportunities for engagement and sharing

Consortia will need to establish systems to support a culture of dialogue between member practices on issues of safety, quality and efficiency within which they can discuss ideas, explore new opportunities and share experience. There must also be a genuine opportunity for practices to help shape the agenda of the consortium, rather than it being imposed on them. This should apply to quality improvement issues as well as commissioning.

Invest in skills

Consortia will need to review carefully their needs in terms of leadership, health needs assessment, partnership building and maintenance, data analysis, pathway design, clinical micro-system design and project management. Many will need to invest early on in recruiting new staff with such skills, or building capability among existing staff.

Given the current low level of awareness of quality improvement principles and techniques, member practices will also need opportunities to encounter and absorb new ways of thinking, as well as to be trained in quality improvement techniques. Consortia should invest in training for practices – particularly with a focus on obtaining some ‘early wins’ to demonstrate the benefits of quality improvement – for example, through reducing waste.

Invest in quality improvement time

Effective quality improvement will require practices themselves to invest some time, in order to perform the tasks of reviewing and interpreting data, agreeing priorities for improvement, and planning change projects. It is essential that they carry out these activities on a regular basis and that they are multidisciplinary, comprising not only staff from medical, nursing and managerial backgrounds but also a range of skills, such as leadership, data analysis and quality improvement. It is suggested that most practices will need to devote half a day per month to such meetings. Consortia could mandate this type of investment in ongoing learning and improvement as part of their governance framework for member practices.

While there are likely to be costs in establishing skills and a culture for improvement, the ongoing pursuit of continuous improvement is likely to reap rewards for member practices as well as patients. Practices that deliver a reliable, high-quality, safe service to their patients will be more likely to be profitable. Quality improvement techniques, such as increasing reliability and reducing variation, are used in almost all industries to offer efficiencies and increase productivity, and general practice could reap the same benefits. Getting the job done well, first time, is best not only for patients but also for practices, as businesses.

Establish a quality improvement support team

While training will be necessary for practices, it is unlikely to be sufficient to ensure rapid adoption of new ways of working. Consortia should provide

practical support, in the form of quality improvement support teams (QISTs), to help practices implement the quality improvement techniques that they learn during training. The evidence confirms that practical advice and coaching from trained improvement leaders can effectively help staff apply quality improvement techniques (27)(29).

This facilitative approach to supporting quality improvement activity is similar to the Medical Audit Advisory Group (MAAG) model used in the 1990s, which was a key factor in the successful spread of audit in general practice. Some of the following lessons, learned from the MAAG experience, are likely to apply to QISTs too (48)(49)(50).

- Professional leadership by respected local peers is essential if practices are to engage effectively.
- The QIST's role should be to promote reflection, learning and culture change, as well as new approaches to measurement and system improvement.
- The QIST should provide a source of high-level technical expertise.
- A multidisciplinary approach should be taken, incorporating expertise and leadership by nurses and managers as well as doctors.
- The work of the QIST should be aligned with the vision and priorities of the consortium as a whole, and should link with and inform other measurement and improvement activities.
- Greater benefits will be achieved for patients and practices if ideas, experiences and data are shared between practices as well as within them. This could extend to a policy for cross-practice PDSA cycles, in which new innovations are refined through piloting in one practice before being rolled out more widely, thus saving time and improving efficacy across all practices.

This approach would complement quality improvement training, providing practice staff with opportunities to observe the values and tools of quality improvement in practice, and receive on-the-job coaching in their application. It would enable patients to benefit from improvement ideas more quickly, provide economies of scale and present a formal opportunity to share detailed improvement ideas among member practices.

A central resource of quality improvement expertise in the consortium could also act as a focus for the collection and analysis of data on practice performance and patient outcomes, providing information to support regulatory and other functions. This would help to reduce duplication of effort, and to place a stronger emphasis on improvement than performance management in the consortium's approach to measurement.

Incentivise improvement in every practice

Measurement for comparison, such as benchmarking against predetermined standards or average performance, is the most common means of providing feedback for general practices about their care. However, there are problems with this approach, and consortia should consider employing other means to incentivise improvement in addition to benchmarking.

One problem with benchmarking is the difficulty of drawing inferences about statistical inter-practice differences without adequately controlling

for confounding factors. Differences in the age structure, deprivation and disease prevalence of practices' registered population will exert a strong influence on a wide range of process and outcome indicators. Yet they are seldom corrected for in benchmarking analyses. Unless comparative data is standardised for key patient factors, it is not possible to draw meaningful inferences about observed differences between practices.

Another problem is the limited potential for benchmarking to encourage average or good practices to improve on their current performance. Comparing practices with their peers will often produce data that is normally distributed around an arithmetic mean. This may motivate those performing below average to improve, but is unlikely to have the same impact on higher-performing practices. The resulting regression to the mean may be an inevitable consequence, rendering benchmarking effective for identifying practices in need of remedial support, but not for driving improvement in average or above-average practices.

Consortia are encouraged to develop rewards frameworks that provide incentives for practices to continue improving once they have attained an average standard. One way of achieving this would be to use more sophisticated analyses that compare practices with the top quartile or decile of peers and reward differential performance at various levels. Another would be to incentivise progressive improvements over time within a practice, using prior performance as the comparator. Although this approach is less effective at identifying a minority of outlying poor performers, improvement scientists regard it as more likely to inspire the majority to make continual improvements.

Establish clear and strong clinical governance

Consortia will need skills, structures and procedures for clinical governance, to deal with issues of poor performance in member practices. They should place governance within the wider improvement remit of consortia in such a way that it performs the function of addressing specific problems in the minority of practices that give cause for concern, without stifling innovation and improvement in the majority that do not. Thus, governance arrangements will need to ensure that minimum standards are met, while other systems ensure ongoing improvement.

When designing their governance frameworks for member practices, consortia should give careful consideration to systems of rewards and penalties. These need not be entirely – or even wholly – financial, but should be designed in collaboration with member practices to ensure they are genuinely influential. Governance frameworks will also need to define the circumstances under which sanctions will be applied to member practices not meeting clearly defined standards, and what those sanctions will be. should make creative use of data to inform clinical governance, to ensure that as wide a range of issues as possible can be included for consideration.

Actions for GP practices

GP practices themselves will need to make a commitment to building a culture and capability to support continual quality improvement. The following are recommended areas within which practices are encouraged to work.

- **Vision and values** It will be helpful for practice teams to deliberately embrace an ethos of putting patients first and seeking to provide

excellent care, involving every member of staff in the mission of continually improving care, and valuing and incorporating patients in measuring and improving their care.

- **Culture** Practices need to evaluate their shared values and norms regarding the safety and quality of their care, using staff surveys of culture and team discussions to take stock of the current situation and identify areas for improvement. Quality improvement flourishes best in a culture that promotes:
 - engaging and empowering all staff in measuring, understanding and improving quality
 - accountability for improving, employing openness about performance and variability and incorporating rewards and penalties
 - continual, rather than periodic, improvement, where improvement contributes to the fabric of the practice and is a part of every person's working day.
- **Leadership** Practices require passionate and skilful leadership to impart vision, enthuse staff and shape culture. This is a distinct skill from management. Effective leadership in a practice does not necessarily have to be given by a doctor, but it must be acceptable and effective for all staff. Adopting structures that value the contribution of all disciplines may sometimes involve appointing non-medical partners to practices – a move that a growing number of practices are finding helpful.
- **Commitment to improvement** As QOF changes, it is possible that some practices will be tempted to devote less time to measuring, understanding and improving the quality and safety of their care. However, meeting the demands of a more outcomes-based performance framework, together with the regulatory requirements of the NHS Commissioning Board and Care Quality Commission may require practices to make an even greater time commitment.

Quality improvement skills are generally lacking in most GP practices. Obtaining them in such a way that practices can use and adapt quality improvement tools to their needs will require committing to a programme of training that explains the paradigms of continual improvement, imparts practical skills in using quality improvement tools and coaches staff through their application in their own practice.

- **Commitment to relationships within the consortium** Commissioning consortia will become a key aspect of the practice's environment. Membership of a consortium will provide fresh opportunities for economies of scale, peer support and encouragement. However, as discussed above, these will only be realised if relationships between practices are built on shared values and vision, trust, respect and collaboration. As well as requiring leadership from the consortium, this will require member practices to have time, patience and commitment.

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