

Quality improvement in general practice: what do GPs and practice managers think? Results from a nationally representative survey of UK GPs and practice managers

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ABSTRACT

Background This paper presents the results of the first UK-wide survey of National Health Service (NHS) general practitioners (GPs) and practice managers (PMs) designed to explore the service improvement activities being undertaken in practices, and the factors that facilitated or obstructed that work. The research was prompted by growing policy and professional interest in the quality of general practice and its improvement. The analysis compares GP and PM involvement in, and experience of, quality improvement activities.

Methods This was a mixed-method study comprising 26 semistructured interviews, a focus group and two surveys. The qualitative data supported the design of the surveys, which were sent to all 46 238 GPs on the Royal College of General Practitioners (RCGP) database and the PM at every practice across the UK (n=9153) in July 2017.

Results Responses from 2377 GPs and 1424 PMs were received and were broadly representative of each group. Ninety-nine per cent reported having planned or undertaken improvement activities in the previous 12 months. The most frequent related to prescribing and access. Key facilitators of improvement included 'good clinical leadership'. The two main barriers were 'too many demands from external stakeholders' and a lack of protected time. Audit and significant event audit were the most common improvement tools used, but respondents were interested in training on other quality improvement tools.

Conclusion GPs and PMs are interested in improving service quality. As such, the new quality improvement domain in the Quality and Outcomes Framework used in the payment of practices is likely to be relatively easily accepted by GPs in England. However, if improving quality is to become routine work for practices, it will be important for the NHS in the four UK countries to work with practices to mitigate some of the barriers that they face, in particular the lack of protected time.

INTRODUCTION

This paper presents the results of research conducted in 2017, exploring service improvement activities being undertaken in general practices across the UK and the factors that facilitate or obstruct that work. The research

was prompted by growing interest in general practice across the UK by the Government and other national bodies, specifically, how to improve the quality of general practice services.¹⁻⁵ In 2019, this culminated in the inclusion of a new quality improvement domain in the revised Quality and Outcomes Framework (QOF) in the English National Health Service (NHS) general practice contract,⁶ following a review of the QOF scheme by NHS England.⁷ Initially, the new domain was focused on improving both end of life care and prescribing safety. Subsequent inclusions focused on helping people with disabilities and early diagnosis of cancer. The new domain is the latest expression of an increasing focus on general practice across the UK. In England, it follows the inclusion of general practice in Care Quality Commission (CQC) quality inspections^{8,9} and publication of the General Practice Forward View,¹⁰ both of which have detailed ways that general practice can be better supported and improved.

There have been earlier attempts to improve quality, for example: the introduction of targets for cervical cytology and childhood immunisations introduced in the 1990s. However, in 2011, a King's Fund report, 'Improving the Quality of Care in General Practice', stated that quality improvement was not yet embedded in general practice and it was unable to quantify the amount of quality improvement that was being conducted at that time.¹¹ In Northern Ireland, Scotland and Wales, where responsibility for the NHS is devolved, there has not been the same level of regulatory and reimbursement reform, but general practice quality has also become a policy priority.¹²⁻¹⁴

While Ferlie *et al*¹⁵ comment that 'service improvement work has developed as an important organisational and managerial



activity within the English healthcare sector over the past 20 years or so', in line with other countries and healthcare systems, much of the activity and research about organisational (as opposed to specifically clinical) improvement has been in secondary, rather than primary, care.^{16–18} This is despite the fact that general practices deliver 90% of patient contacts in the NHS and remain the key gatekeeper to other services. Now that a new quality improvement domain has been introduced into the QOF (although only in England), it is timely to describe the nature and extent of improvement work in general practice, as well as to explore how best to support the extension of quality improvement work in general practice.

This paper presents the results of the first UK-wide survey of general practitioners (GPs) and practice managers (PMs) designed to explore the service improvement activities being undertaken in practices, and the factors that facilitate or obstruct that work. The analysis focuses on comparing GP and PM involvement in and experience of quality improvement activities rather than differences in quality improvement activity between different types of practice (eg, by patient list size, location, etc). More information on the latter is given elsewhere.¹⁹ It was important to include PMs in the study because managers are known to be highly influential in team cohesion and development, but their views are seldom sought.¹ They are also the members of the practice team who mediate the introduction of 'increasingly complex service regulations',²⁰ and are key to understanding the organisational processes and dynamics related to improving quality. Finally, they are likely, through management training, to be aware of both improvement and change management techniques.

However, what counts as 'quality improvement' is not straightforward to define. 'Quality improvement' and 'improving quality' are not the same thing. In its guide, 'Quality Improvement for General Practice', the RCGP defines quality improvement as:

"... a commitment to continuously improving the quality of healthcare, focusing on the preferences and needs of the people who use services. It encompasses a set of values (which include a commitment to self-reflection, shared learning, the use of theory, partnership working, leadership and an understanding of context); and a set of methods (which include measurement, understanding variation, cyclical change, benchmarking and a set of tools and techniques)."⁵

While this implies the use of formal methods or tools, the results of which can be measured, the wider activity of improving the quality of services encompasses more informal efforts to change and improve the way processes in the practice are undertaken. The CQC acknowledges the difference, drawing 'a distinction between efforts focussed on "improving quality", and "quality improvement" which involves the "use of a systematic method"'.⁸ Many practices are likely to be improving the delivery of

their services and the way their practices work without necessarily using formal tools.²¹ For clarity, in the survey, when we were referring to informal activities we used the terms 'improving quality' or 'improving patient care or services' and 'quality improvement' when we were referring to activities which used formal improvement tools.

METHODS

To inform the design of the surveys, 26 semistructured interviews and one practice-based focus group were conducted February to May 2017. The interviews were with a range of GPs and PMs from across the UK, as well as interviewees working at national-level agencies concerned with quality in general practice, for example, NHS Improvement. The GPs and PMs were all working in general practice, but some also worked part time at a national policy level. The focus group was a team of doctors within one English practice. The interviews and focus group enabled us to explore what GPs and PMs think about improving the quality of services, how they would define quality and whether it is an activity that is built into their day-to-day activities. They provided a picture of some of the problems practices are facing and how practice teams manage them. We used this information to design the survey questions to enable respondents to relate these to their own practices and ensure that we used appropriate terminology. We also wanted to design questions that would avoid a defensive reaction or appear to be judging practices. The questionnaire underwent cognitive testing on a small number of GP and PM respondents. This included respondents in different countries of the UK, but we were not able to test it on GPs and PMs in all four. Some questions were subsequently amended to improve their clarity.

Two survey questionnaires were designed, one for GPs, one for PMs, containing identical questions about the types of activities practices were undertaking to improve patient care or services in the 12 months preceding the survey and what motivated practices to undertake these activities (a copy of the GP questionnaire, showing the quality improvement questions, Qus 8–34, shared with the PM questionnaire is available at the end of this paper online supplemental file 1). We were interested in the factors perceived to be helpful in supporting practices to undertake improvement activities, as well as the barriers perceived to make it more difficult. The survey included a set of questions about whether respondents had used, and received training in, different tools or other training designed to help them improve patient care and services. Finally, we collected data on the characteristics of respondents and their practices, including the amount of protected time available to improve patient care and services, number of GPs and partners, different types of staff, contract type, list size, and so on.

When considering the facilitators and barriers, respondents were asked to rate a series of options on a 5-point Likert scale from 'very helpful' to 'not very helpful' in the case of facilitators and 'no more difficult' to 'much

more difficult' in the case of barriers. We asked about the amount of protected time to improve patient care and services that respondents had, using a sliding scale, set at zero, which the respondents could move to the corresponding number of hours available per month.

An email invitation to take part in an online survey was sent to all 46 238 GPs on the RCGP membership list (as at 24 July 2017). Thus, the survey invitation was sent to all member GPs in a practice. The list included a small number of GPs who had retired, or, for various reasons, were not currently practising. These were identified at the beginning of the questionnaire and GPs who had not practised in the UK in the past 12 months were excluded from the survey.

There is no database of PMs; therefore, in order to survey PMs, we sent an invitation letter to all 9153 practices in the UK, addressed to 'The Practice Manager'. Some managers may prefer a different title, but we felt that this was generic enough to be generally recognised. Although we are aware that some larger practices may have more than one PM, the survey allowed only one response per practice. Both surveys were launched at the end of July 2017 and closed at the end of September 2017. An initial invitation and two reminders were sent, each containing a link to the survey. More detail on the methods used can be found in Gosling *et al.*¹⁹

The data from the GP and PM surveys were summarised separately using descriptive statistics. In the GP survey, since it was possible for more than one GP from a practice to respond to the survey, results that refer to the practice level (rather than individual GPs) would over-represent practices if there was more than one respondent. Therefore, when presenting results at the practice level, the data have been weighted by practice list size (using number of registered patients at a practice), so that the survey distribution of practice list size matches that of the practice population in the UK. The number of responses varied by question as not all participants answered all questions. In addition, we excluded responses for 'don't know' and 'not applicable'. For the questions that asked respondents to rate responses on a five-point Likert scale, we created a dichotomous outcome ('very helpful' and 'fairly helpful' vs 'not helpful', and 'much more difficult' and 'somewhat

more difficult' vs 'no more difficult'). When reporting by GP type (eg, partner or salaried GP) or country, these categories were collapsed into 'helpful' or 'difficult'. Below we outline the main findings from both surveys.

Patient and public involvement

There was no patient and public involvement in the design of this project.

RESULTS

Overall, 2377 GPs (1511 GP partners, 509 salaried GPs and 357 trainee GPs) from 1946 practices were included in the analysis. We do not know the exact number of ineligible GPs on the RCGP membership list, but we estimate the response rate to be between 7% and 10%. Table 1 provides the distribution of respondents by country, compared with British Medical Association data for GPs at the time the survey was undertaken and shows that the respondents were broadly representative of all GPs. Overall, 1424 PMs were included in the final dataset, which gives a 16% response rate based on the number of practices (rather than PMs, as the total number of PMs is not known). Further details on the achieved samples of GPs and PMs can be found in Gosling *et al.*¹⁹

Motivations to undertake improvement activity

The majority of survey respondents reported that they became aware of services or areas in need of improvement through activities undertaken inside the practice, rather than being externally driven. The most common ways of becoming aware of services in need of improvement were the findings from significant event audits (slightly more for GPs (62%) than for PMs (55%)), followed by discussion at practice meetings (58% for both PMs and GPs) and then patient problems (more for PMs (48%) than for GPs (36%)). External prompts, such as from the local service commissioner (eg, Clinical Commissioning Group or Health Board) or NHS Trust provider, were less common, but featured more for GPs (34%), than PMs (20%). There seemed to be less activity reported in Northern Ireland, Scotland and Wales than England (even though the research was conducted before the introduction of the new QOF domain in England).

Table 1 General practitioners (GPs) and practice managers (PMs) compared with national data at individual and practice levels, by country (%)

Distribution of respondents across the UK	Individual GPs		Practice level: GPs and PMs		
	GPs registered with BMA ²²	GPs in GP survey	BMA practices ²²	Practices in GP survey*	Practices in PM survey
England	83	81	81	80	78
Northern Ireland	3	2	4	3	4
Scotland	10	12	10	12	14
Wales	5	5	5	5	4

*GP survey data at practice level has been weighted for practice list size within country.
BMA, British Medical Association.

Areas of improvement activity

GPs and PMs were shown a list of 13 types of patient care or services and asked whether they had planned or undertaken any activities to improve them in the last 12 months; as well as choosing from the list, they could write in 'other' types of patient services. Additionally, PMs were asked about the introduction of new roles to the practice team. Nearly all GPs and PMs (99%) reported having planned and/or undertaken activities to improve one or more types of patient care or services during this period. The most common areas of improvement activity reported by both GPs and PMs related to prescribing, access to appointments, chronic disease management, collaboration with other practices, end of life care (GPs) and health promotion (PMs). Of the three most commonly reported, 86% of GPs and 83% of PMs indicated that they had been involved in projects to improve prescribing, while 81% of PMs and 73% of GPs said that they had undertaken work to improve access. In the case of chronic disease management, 72% of GPs and 73% of PMs said that they had undertaken improvement work in this area. The median number of activities implemented or planned by GPs was 6 (IQR 4–8); the number of activities implemented or planned was slightly higher in England compared with the other countries: 6 (IQR 4–8) versus 5 (IQR 4–7).

Practice managers reported implementing or planning a higher number of activities than GPs: 7 (IQR 5–9). PMs in England reported implementing or planning more activities than PMs in other countries: 7 (IQR 5–9) versus 6 (IQR 4–9).

Facilitators and barriers to improving services

When considering the key facilitators to identifying, planning or implementing improvements in patient care or services, respondents were asked to rate each of 12 items as 'very helpful', 'fairly helpful' or 'not helpful'. The results in [table 2](#) show that the views of GPs and PMs were aligned and that the majority of respondents considered most to be very or fairly helpful. Over 90% of GPs and PMs considered 'good clinical leadership', 'working well together as a team', 'clinical staff have the skills to assess service quality' and 'routine monitoring of the care and services we provide' to be fairly or very helpful.

The two facilitators least frequently identified as fairly or very helpful were 'other support from external organisations' and 'financial support from external organisations'; selected by only 50% and 42% of GPs, and 54% and 38% of PMs, respectively. The difficulties associated with obtaining external financial support were illuminated by one of the free text comments from a PM:

"Systems are unnecessarily complex especially with regards to funding. By the time [a project] is specified it is hardly worth the effort in the remaining short time scale of putting in an application [for funding] ." (PM, free text comment in survey)

As with the facilitators, respondents were asked to rate each of 11 different barriers as 'much more', 'somewhat more' or 'no more' difficult. The factors most frequently identified as making it much more or somewhat more difficult for the practice to improve patient care or services, detailed in [table 3](#), were 'high level of patient

Table 2 Importance of facilitators*, by type of general practitioner (GP) and practice managers (PMs) (%)†

	GP partner	Salaried GP	GP trainee	All GPs	PMs
Working well together as a team	98	97	99	98	97
Good clinical leadership	97	92	99	96	95
Clinical staff have the skills needed to assess service quality	93	94	99	94	93
Routine monitoring of the care and services we provide	92	93	98	93	93
Non-clinical staff have the skills needed to assess service quality	84	84	97	85	85
Clinical staff being trained in how to improve care and services	84	86	97	86	78
Non-clinical staff being trained in how to improve care and services	82	86	96	84	77
Protected time to plan and work on improvements in care and services	76	81	95	79	55
A wide range of information available to evaluate our services	76	82	94	79	70
An active patient participation group	61	70	89	65	52
Other types of support from external organisations	44	60	86	50	54
Financial support from external organisations	36	46	86	42	38

*Categories of 'very helpful' and 'fairly helpful' combined.

†Don't know and not applicable have been excluded from the base as well as missing answers.

Table 3 Importance of barriers*, by type of general practitioner (GP) and for practice managers (PMs) (%)†

	GP partner	Salaried GP	Trainee GP	All GPs	PMs
High level of patient demand	97	94	85	95	95
Too many demands from external stakeholders	96	93	87	95	93
Clinical staff shortages	84	85	75	84	77
Non-clinical staff shortages	64	70	64	65	58
Not having the right skill-mix in our practice to plan for or manage change	52	50	37	50	50
Not having enough data or insufficient types of data	43	44	36	43	44
Lack of skills to manage or analyse data	43	44	31	42	41
Not all practice GPs being fully engaged with improving care and services	38	43	33	39	46
Not all non-clinical staff being fully engaged with improving care and services	37	46	41	39	42
Communication problems within the practice	28	40	29	31	31
Lack of interest in improvement issues in the practice	27	31	25	28	35

*Categories of 'much more difficult' and 'somewhat more difficult' combined.

†Don't know and not applicable have been excluded from the base as well as missing answers.

demand' and 'too many demands from external stakeholders'; over 90% of GPs and PMs reported that these barriers made it somewhat or much more difficult. This comment begins to explain why this might be the case:

"We are also expected to repeatedly report information in various different guises, which is frustrating and time consuming." (PM, free text comment in survey) "There needs to be a way to work better together, rather than in individual practice silos and push back against some of the targets and reporting that comes from the CCGs, NHSE, CQC, public health etc. as quite often it is duplicating work and very time consuming." (PM, free text comment in survey)

The third most common barrier was 'clinical staff shortages' reported by 84% of GPs and 77% of PMs.

Only 43% of GPs and 44% of PMs selected 'not having enough data' as making it somewhat or much more difficult, along with 'lack of skills to manage or analyse data' (GPs 42%, PMs 41%). 'Lack of interest in improvement issues in the practice' was selected least often as a barrier, by 28% of GPs and 35% of PMs.

When asked how much protected time they had to participate in activities to improve patient services, only 23% of GP partners and 25% of salaried GPs said they had 3 or more hours a month, while 2% of GP partners and 31% of salaried GPs said they had no protected time each month. When a period of time was allocated in principle to quality improvement, external requirements were reported to impede its uptake:

"So the CCG [arrange protected learning time] every other month, so we have an afternoon every other month. But we don't do it because NHS England are very averse to us shutting [...] We even got into trouble a couple of years ago because... between

12: 30pm and 1: 30pm we would turn the phone off unless it was an emergency [...] NHS England said we were in breach of contract and we needed to change it." (Interview with PM)

Using the tools of quality improvement

As stated above, 'improving quality' and 'quality improvement' are not necessarily the same thing. The former can be defined as making things better, while the latter usually implies "a systematic approach that uses specific techniques to improve quality" and "a 'method' (an approach with appropriate tools)".²² We asked GPs and PMs about their use of formal tools and whether they had received or would like to receive training in these (see table 4).

It is probably to be expected that the most commonly used are audit and significant event audit, which have long been used in general practice²³ and were previously a QOF domain. Of the GPs who reported that they used them, 73% had received training in audit and 64% training in significant event audit (training for PMs was much lower: 42% and 49%, respectively.) After these two, the numbers using any other formal quality improvement tools decreased substantially. This is reflected in the proportion of respondents who had received training in improvement tools. A fifth of GPs and a quarter of PMs reported no training in any quality improvement tools. The training received also varied between the two groups. For example, 43% of PMs had received training in change management, while only 14% of GPs had.

However, there appears to be some interest in training in other quality improvement tools (table 4), with 'model for improvement' the most popular among 39% of GPs and 44% of PMs, followed by change management among the GPs (37%) and root cause analysis among the PMs (37%). Twenty per cent of GPs and 18% of PMs stated that they had no interest in receiving training in

**Table 4** Quality improvement tools and methods used and would like training in by type of general practitioner (GP) and practice managers (PMs) (%)

	Tools used		Received training		Would like training in	
	GPs	PMs	GPs	PMs	GPs	PMs
Audit ⁵	90	85	73	42	13	31
Significant event audit ⁵	90	90	64	49	15	27
Plan Do Study Act (PDSA) cycle ⁵	21	31	11	33	31	29
Change management	20	42	14	43	37	32
Root cause analysis ⁵	19	25	13	24	35	37
Process mapping ⁵	16	33	11	29	36	35
RCGP QI guide for general practice*	10	10	Not Applicable			
Model for improvement ⁵	6	13	4	12	39	44
Run charts ⁵	3	7	4	8	31	35
RCGP QI ready*	3	3	Not Applicable			

*Not included in this question in the surveys.

quality improvement tools (the question provided an 'Other' option to indicate an interest in training in tools not listed. This was only selected by 3% of GPs and 4% of PMs).

DISCUSSION

The findings show that nearly every practice that responded to the survey was planning and/or had undertaken activities to improve patient care or services in the last year. To the extent that the survey is representative of practices, improvement work appeared to be mostly self-driven and motivated by prompts from within the practice, rather than external bodies. However, practices indicated significant barriers to improvement work, with 'high levels of patient demand' and 'too many demands from external stakeholders' being reported as a barrier by nearly all GPs. A similar picture was presented by the PMs. It is noteworthy that only 42% of GPs and 38% of PMs thought that 'financial support from external organisations' would be helpful. Financial support often comes with onerous application and reporting requirements, and this conclusion was borne out by the report of the Department of Health & Social Care's General Practice Partnership Review,²⁴ which stated:

"There are too many small sums of money, with an overly complex bidding process, and funding is all too often non-recurrent."

At the time, not many GPs and PMs were using formal quality improvement tools, aside from audit and significant event audit. However, the use of the phrase 'continuous quality improvement', a term from 'lean management', within the QOF indicator in England, implies an expectation that formal tools be used.^{25 26} Training will need to be made available to enable this and our data indicate that there is an interest in and willingness to be trained in quality improvement tools. The RCGP currently has two resources available: its 'Quality Improvement Guide for

General Practice'⁵; and an on-line resource, 'QI Ready'.²⁷ For this to be practical, protected time for both improvement work and training needs to be made available.

Unlike consultants in secondary care, there is no facility for protected time for training or service improvement in the GP contract. Indeed, the lack of protected time has been an issue for many years.²⁸ Our research shows that very few GPs are able to access protected time, for example, in order to get the whole team together, whether to plan and undertake specific improvement activities or just to discuss the day-to-day operation of the practice.

The Scottish NHS has recognised the importance of protected time and in the latest Scottish NHS General Medical Services contract (2018) states that "from April 2018, each practice will receive resources to support one session per month for Professional Time Activities. There is a clear intention to achieve, over time, regular protected time for every GP" to be used for "assessing and developing services intended to meet the needs of their patients and local communities"²⁹ There is no mention of protected time in "Investment and Evolution", the equivalent framework for contract changes to deliver the NHS Long Term Plan in England.²⁵

Limitations

An undeniable limitation of the study are the response rates from both GPs and PMs, coupled with the likelihood that those who are interested in the area of quality improvement are more likely to respond to a survey on this subject, although the GP respondents appear to be broadly representative of all GPs in the UK in other respects. The high proportion of practices from which we received at least one response, which indicated that the practice was undertaking some improvement work may indicate a bias in the survey results towards more active practices. A further issue that will have lowered the PM response rate is that, without email addresses for PMs, we were not able to send an electronic link to the survey. The

link was included in the invitation letter and had to be typed into a browser, a procedure which is known to lower response rates.³⁰ In addition, we were collecting respondents' own views and knowledge about their practices and their own behaviour. Self-reports can be subject to recall and other reporting errors.³¹ Response and data quality issues are explored further in Erens *et al.*³²

CONCLUSION

It is clear from these findings that GPs and PMs are interested in improving the quality of their services and that practice teams are undertaking improvement activity as a routine part of their work. This means that the new quality improvement QOF domain is likely to be relatively easily accepted by GPs in England, particularly as practices are already undertaking improvement projects on prescribing, end of life care and collaboration with other practices—the specific indicators and criteria of the new domain. However, for improvement work to become routine for practices, it will be important for the NHS in the four UK countries to work with practices to mitigate some of the barriers that they face, in particular, the lack of protected time for practice teams to meet to identify areas for improvement, plan that improvement and acquire training in the tools that might assist them.

Contributors The study was designed and conducted by Dr Jennifer Gosling, Professor Nicholas Mays and Bob Erens. The analysis and reporting were additionally conducted by David Reid and Jo Exley.

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