

# **The impact of incentives on the behaviour and performance of primary care professionals**

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*Report for the National Institute for Health  
Research Service Delivery and Organisation  
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# *The Report*

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## 1 Outline of the report

### **1.1 Introduction**

There has been a general trend over the last 15 years to treat incentives in UK public services more explicitly<sup>1</sup>. These initiatives reflect a general shift away from placing implicit trust in individuals and organisations to carry out their duties, towards actively managing their performance<sup>2</sup>.

Understanding the impact of different types of incentives on professional behaviour in primary care has been recognised as an urgent need<sup>3</sup> in a context where major changes to incentive structures have been introduced in recent years, including new contractual incentives for the provision of services in primary care. Primary care professionals (PCPs) are also influenced by other policies, which alter incentives structures, such as those associated with developing practice-based commissioning (PBC) and working within wider care strategies in local health economies. It is important to understand the relative impact of incentives, or incentive mixes, in the NHS in order to enable commissioners (Primary Care Trusts or PCTs) to employ an effective repertoire of contractual and non-contractual incentives to influence change.

This report details the methods and findings of a three year National Institute of Health Research Service Delivery and Organisation programme funded project into the impact of incentives on the behaviour and performance of PCPs in the NHS

### **1.2 Aims and Objectives**

The overall aim of the project was to explore and explain the impact of incentives in primary care on professional behaviours and performance. Specifically we sought to:

- identify and classify the factors impacting on the motivation of PCPs
- examine the extent to which and the ways in which these are present in the various contexts in which PCPs are working

- explore how these impact on behaviours and performance of PCPs in general practice, dentistry and pharmacy settings
- describe local contextual factors which may encourage or limit responses to incentives
- investigate the ways in which incentive structures and regimes and their associated impacts evolve and transform over time
- analyse the (longitudinal) relationships between changes in incentive structures and the performance and behaviours of PCPs

### **1.3 Research design and project overview**

We adopted a multi-method approach, integrating both qualitative and quantitative components. In order to capture the breadth of any associations between changes to incentive structures and their impacts, we conducted quantitative analyses using national datasets. To capture depth, we conducted interviews with PCPs and their staff, NHS commissioners, patients and independent sector providers of care.

The primary care settings covered by the project are

- General medical practice
- Community pharmacy
- General dental practice

The intention was to recruit research participants in a small number of health economies and follow these over time. However, difficulties in recruiting resulted in a change of research design. Instead, a more opportunistic approach was taken, which resulted in most participants being interviewed only once and participants being recruited from a much greater number of health economies (n=24) than the 4 originally planned. Rather than comparing responses of the same individuals over time, we have interpreted interview data in the context of changes over time in response to incentive structures and to changes in the wider health service more generally.

The overarching philosophy underpinning the approach was one of Realistic Evaluation<sup>4</sup> in which we assume that responses to incentives are not simply a product of the design of incentive structures, but are intimately connected to the context in which they occur.

## **1.4 Structure of the report**

This report is arranged as follows.

Section Two describes the policy context, focusing in particular on the three primary care settings (general medical practice, community pharmacy, general dental practice respectively). Recent changes to incentive structures facing primary care professionals in these settings are discussed and placed in historical context.

Section Three constitutes the theoretical core of the project and outlines a range of theoretical frameworks and conceptual models for understanding attitude and behaviour change in health care organisations in response to incentives.

Section Four describes the research design and methods used in the research.

Sections Five to Seven present the findings of the research in relation to each of the three primary care settings.

Section Eight integrates the findings from the empirical work and provides an overview and assessment of the contribution of our research evidence in relation to addressing our research aims. We do this by drawing out the common patterns and divergence in our sources of data and interpreting our findings within the context of the broader theoretical and empirical literature.

Section Nine details the policy and managerial implications of the study and looks forward at the emerging research issues arising from the project.

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## 2 Incentives, primary care and the NHS: An overview of recent developments and the policy context

### 2.1 Introduction

The general trend over the last 15 years to treat incentives in UK public services more explicitly<sup>1</sup> reflects a shift away from placing implicit trust in individuals and organisations to carry out their duties, towards external systems of checking, verification and audit and actively managing performance<sup>5</sup>.

In the NHS hospital sector annual performance ratings for NHS trusts in England were published from 2001 to 2004 and more recently, developments such as Commissioning for Quality and Innovation (CQUIN)<sup>6</sup> and Advancing Quality<sup>7</sup> link payment to achievement of performance targets in NHS trusts. Plans have also been announced to link provider income to patient satisfaction.<sup>8</sup>

With regard to primary care professionals, the context is very different from NHS trusts. Most of these professionals are independent contractors or employed by independent contractors, rather than NHS employees. New contractual arrangements have been introduced in these settings, which can be seen as attempts to align incentive structures with desired performance and policy outcomes. They can also be seen as attempting to help PCTs to move away from serving as mere paymasters to taking an active role in commissioning care to meet local population health needs.

In primary medical care major changes to contracting arrangements were introduced from April 2004. 2005 saw the introduction of a new NHS community pharmacy contract<sup>9</sup> and a new contract for general dental practitioners came into operation on 1 April 2006<sup>10</sup>. Other important changes to incentive structures include the introduction of Practice Based Commissioning<sup>11</sup>, which involves provision of an 'indicative budget' for practices or groups of practices for commissioning secondary care (hospital) services. In what follows we describe these developments and place them in context.

### 2.2 General medical practice

Most general medical practices are owned and run by groups of general medical practitioner (GP) 'partners', which employ other staff including salaried GPs, practice managers, nurses and receptionists.

Partners share the practice's profits as personal income. They are self-employed contractors to the NHS and must work to national contractual terms, usually negotiated but occasionally unilaterally imposed.

### **2.2.1 1948 to 1990 – the gentlemen's agreement**

When the NHS was created in 1948 general medical practitioners (hereafter GPs) retained their status as independent contractors, with capitation as the basis of their system of remuneration.

By the early 1960s with a rising population, resulting in increasing demands on GPs, morale amongst the profession was low and GP discontent with pay and conditions growing<sup>12</sup>. In response to demands for change from the profession, a new contract was introduced in 1966 which addressed GPs' concerns in relation to pay and continued to grant them freedom from government interference regarding what they did and the way that they did it. The contract was vague with regard to what was required of GPs and preserved capitation as a basis for payment.

The 1960 Royal Commission had wanted to introduce merit awards for GPs. However, the profession was unable to agree on what was a good or bad GP<sup>13</sup> and the proposal was not implemented. This resistance to defining what constituted a 'good' or 'bad' GP reflects a broader commitment in general medical practice to defending the individual's right to decide how to practise and also to defending the principle that all GPs should receive equal treatment<sup>14</sup>.

The issue of quality remained, however and the 1986 Green Paper on primary care, expressed concern about the costs of general medical practice in the absence of information about what GPs did<sup>15</sup>. It advocated the introduction of a good practice allowance, but the General Medical Services Committee (GMSC) opposed this arguing that any quality payment had to be achievable by all GPs. The proposed allowance, which would be achievable only by some, would therefore widen the gap between high and low performing GPs<sup>16</sup>. Furthermore, there was still no consensus among GPs regarding what constituted good practice<sup>17</sup>.

### **2.2.2 1990 onwards – the end of the gentleman's agreement**

The era prior to 1990 has been described in terms of a 'gentleman's agreement' between GPs and government<sup>18</sup>. In 1990, however, the gentleman's agreement ended. In response to concerns about unexplained variations in medical practice, the then Conservative government imposed a new contract on the profession, despite fierce opposition from GPs. This contained target levels of achievement for

cervical smears and immunisations and required GPs to perform health checks on specified groups of patients. It also introduced payments for the provision of health promotion clinics. GPs were sceptical of this population-based focus on preventive medicine as opposed to the traditional focus on the reactive consultation<sup>19</sup>, but also perceived the contract as a threat to autonomy from the managerial or contract state<sup>18</sup>.

The 1990 contract fuelled a growth in the number of practice nurses working in general practice. However, the work they undertook, although required by the contract, was initially viewed as relatively unimportant or of dubious value by GPs<sup>20</sup>. Despite the depiction of practice nurses as 'absorbing' mechanisms<sup>21</sup>, absorbing unwanted (by GPs) workload, these nurses appeared willing to accept these tasks and to use them to provide closure around an area of expertise as part of the development of a professional project for practice nursing<sup>20</sup>. Although the health promotion contract payments, which helped pay for these nurses were later abolished, practice nurses are now an integral part of practice life, with over a third of all consultations being carried out by these nurses<sup>22</sup>.

In 1998, the Department of Health (DH) piloted the Personal Medical Services (PMS) contract<sup>23</sup>. This gave GP practices the ability to negotiate greater flexibility through local contracts with their PCT. These would be geared to the particular needs of their local population underpinned by pre-specified quality standards. PMS contracts also aimed to address recruitment problems by providing a salaried GP option and funds to increase the numbers and types of healthcare staff, supporting an enhanced role for nurses in PMS practices. In addition, the policy of PMS contracts aimed to improve GP services in under-doctored areas.

Although PMS contracts were modestly successful in tackling recruitment issues<sup>24</sup> and were able to provide improved services for patients<sup>25</sup>, the landscape of primary care during the 1990s was one of increasing GP unrest and worsening morale<sup>18</sup>.

*The NHS Plan*<sup>26</sup> published in 2000 stressed the need to modernise the NHS and saw the development of primary medical care as key to this process. The context of general medical practice at the time the Plan was published was one of GP unrest, high workload, low morale and a recruitment crisis as new doctors chose to avoid the long hours and inflexibility associated with general practice<sup>22</sup>.

The Plan highlighted the need to modernise the contractual relationship between the NHS and GPs and increase the number of GPs working in the NHS. By 2001 there was broad agreement between the DH and the British Medical Association (BMA) that in order to deliver the type of primary care needed in the twenty-first century a new contract was required.

### 2.2.3 Paying for 'quality' 2004 onwards

The DH and the BMA agreed that the PMS contract provided a model to inform the design of a new contract, but what was required was a new national contract to provide incentives for doctors to work in general practice and improve access to primary care. New contractual arrangements were introduced with effect from 1<sup>st</sup> April 2004 encompassing four contracting routes: general medical services (GMS); personal medical services (PMS); alternative provider medical services (APMS) (e.g. the voluntary sector, commercial providers, NHS trusts, or other PCTs); PCT medical services, PCTMS (direct PCT provision)<sup>27</sup>.

These contracts are intended to give PCT commissioners greater flexibility over how and from whom they commission primary medical services and to support an expansion of primary care capacity, including delivery of a wider range of services. This is aimed at helping to reduce pressures on the acute sector, and improving convenience and choice for patients<sup>28</sup>.

Under the new arrangements, responsibility for fulfilling contractual obligations moved from the individual GP to the practice. The contract reforms also offered GPs the ability to opt out of the responsibility for providing care 'out of hours' and resulted in significant increases in income for GP partnerships<sup>29</sup>. These factors may explain why, in 2003 (unlike in 1990), some 80 percent of GPs who voted in a national ballot, were in favour of the new GMS contract.

In addition, a key component of the new GMS contract is the Quality and Outcomes Framework (QOF). This is a voluntary reward and incentive programme which links payment to the achievement of quality targets.

#### ***QOF and payment***

The framework links additional payments to practices (i.e. in addition to pre-existing capitation and other payments) to performance against what was originally a set of 146 quality indicators<sup>30</sup>. These indicators relate to clinical care for 10 chronic diseases, organisation of care, patient experience, and some additional services. The clinical indicators were mainly concerned with processes, such as diagnosing conditions, measuring parameters and giving treatments. Only 10 of the 76 clinical indicators concerned intermediate outcomes, such as controlling blood pressure. Choosing processes over outcomes is a pragmatic approach. They are generally easier to measure than outcomes, but they are also more under the control of GPs. Outcomes may also take several years to become apparent, and attributing an outcome to the actions of a particular GP or GP practice is extremely difficult, particularly with chronic disease. Most QOF clinical indicators have therefore been based on processes for

which there is evidence, or at least professional consensus, in terms of improved outcomes.

Practices earn points – up to a maximum of 1,050 (reduced to 1,000 in 2006/7) – for meeting the targets set out in each indicator. Some targets are dichotomous (for example, maintaining an asthma register earns the practice 7 points) and for others, in the clinical care domain, points are awarded on a sliding scale based on the proportion of eligible patients for whom the target is achieved. For the clinical indicators practices must exceed a minimum achievement threshold and are then awarded more points with increasing achievement up to a maximum threshold. The maximum thresholds were intended to reflect the maximum practically achievable level to deliver clinical effectiveness, but effectively meant that practices could earn maximum points and remuneration whilst missing the targets for large numbers of patients<sup>31</sup>.

The points allocated to each indicator were determined in the negotiations between the DH and the BMA, and were intended to reflect estimated workload for practices rather than population health gain. There is therefore a risk, where there is a mismatch between workload and health gain, that practices will focus on the more profitable, labour intensive activities which have relatively low gains in terms of population health<sup>32</sup>.

### ***Protection of patients***

With financial incentive schemes there is a risk of inappropriate treatment of patients for whom a quality indicator is not appropriate<sup>33, 34</sup>. The process of risk-adjusting indicators is problematic, as it involves creating very complex indicators<sup>35</sup>, and it is not possible to allow for all eventualities. The QOF takes two approaches to this problem. First, maximum achievement thresholds are set below 100%. Second, GPs are permitted to use their clinical judgment to remove inappropriate patients from achievement calculations (the denominator), a process known as 'exception reporting'.

There are concerns that exception reporting could permit substandard care, or be exploited for financial gain by practices excluding patients for whom the targets had been missed rather than for a genuine clinical reason. However, exception reporting is seen by GPs as an essential safeguard against inappropriate treatment. It may also be important from an equity perspective, as it relieves the financial pressure on practices to deny care altogether to patients for whom the targets are not appropriate.

### ***Enhanced Services***

In addition to essential services, there are opportunities for practices to offer enhanced services. Local Enhanced Services (LES) are



negotiated with PCT commissioners and Directed Enhanced Services (DES) are special services or activities provided by GP practices that have been negotiated nationally (e.g. access, Choose and Book). National Enhanced Services (NES) are focused on local needs, but commissioned to national specifications and benchmark pricing (e.g. care of the homeless).

#### **2.2.4 The goals and evolving policy context of the contract reforms**

Whilst QOF might be seen as providing incentives to improve the quality of care (or reward the existing high quality of care depending on your perspective) in relation to the domains included in QOF, with regard to the contract reforms more generally, these were expected to deliver a wide range of benefits, as outlined by DH in its 2002 business case to the Treasury<sup>22</sup>. These include the redesign of services around patients and, as part of this, the allocation of resources to local populations according to need. Yet, these goals are not necessarily mutually compatible. For example, in order to obtain support from GPs a "Minimum Practice Income Guarantee" was established, which protected practices from earning less core pay than they did under the old funding system. As a result, redistribution of resources to underserved areas has been limited<sup>22</sup>.

The intention from the outset was that QOF would be reviewed in the light of new clinical evidence and the evolving nature and work of general practice. In 2006 changes were made to QOF, removing 138 points which were replaced with new indicators and clinical domains. A further 28 points were redistributed amongst the existing indicators. In the light of high levels of achievement in 2005, all lower thresholds for existing indicators were raised. The upper threshold remained at 90% for the majority of indicators.

For some indicators with upper thresholds below 90%, the upper threshold was raised. However, as with the initial setting of thresholds, this adjustment of thresholds was arbitrary and was not clearly related to the levels of achievement of practices under the framework.

In 2007 the Prime Minister made a commitment that GP surgeries in England would be open in the evenings and on Saturday mornings. This was reinforced by the detail of the Darzi interim report on the NHS, which stated, 'our aim is that at least half of all GP practices will open each weekend or on one or more evenings each week'<sup>36</sup>. This issue became a major political imperative and a top NHS priority for the Government. In December 2007 negotiations for revisions to the GMS contract broke down and notice was given that a new contract was to be imposed on practices if no agreement could be reached. The issue on which the negotiations foundered concerned an extended opening hours DES for GPs' surgeries. While increasing opening hours might be seen as part of the government's

commitment to create a responsive NHS, in a survey of 2.2 million people in July 2007, 84 percent reported being satisfied with the current opening hours of their practice, suggesting that “consumers” were not clamouring for greater access<sup>37</sup>. Faced with two non-negotiated options, both of which involved extending opening hours, in March 2008 over 90 percent of GPs who voted, selected the option they believed was the lesser evil. A poll conducted alongside the ballot found that English GPs had little faith in government policy and its ability to improve the health service. The poll indicated that 97 percent of respondents reported no confidence in the government’s handling of the NHS; 98 percent said they regarded the government’s method of negotiation as unacceptable<sup>38</sup>.

Further changes introduced with effect from 1<sup>st</sup> April 2008 included recycling 58.5 QOF points to incentivise access (48 hour and advanced booking). This is measured by a new National Patient Experience Survey, with funding through QOF for practice’s own surveys ceasing. There were also indicator changes to reflect latest clinical evidence and some changes to the financial and accounting arrangements underpinning the QOF.

In 2009 QOF payments were made directly proportional to disease prevalence as a result of the removal of the “square rooting” formula (see Appendix 1).

### **2.2.5 Markets and choice in primary medical care**

As part of the process of introducing new contracts in primary medical care legislation was passed in 2003 which ended the GPs’ monopoly over the provision of primary care to the NHS and resulted in an expansion of market forces in primary health care<sup>39</sup>. In addition PCTs in England have new powers to negotiate contracts with commercial companies (APMS contracts) and employ GPs directly (PCTMS contracts)<sup>27</sup>. In line with its intention to increase competition amongst health care providers, the government has also introduced policies to promote patient choice and to allow money to follow patients to providers of their choice. PBC is intended to be a key enabler of patient choice<sup>11</sup>. Under PBC, practices or (more commonly) groups of practices are provided with an ‘indicative budget’ for commissioning secondary care services. The intention is that GP commissioners will identify a variety of different providers for their patients and increase the choices on offer by directly providing or commissioning new services themselves. In addition PBC is intended to control, and ultimately reduce, the overall rate of GP referrals to hospitals. In summary, as part of the process aimed at opening up the market in health care for NHS patients, the reforms give GPs a new role as commissioners of care. In this role they may choose to commission care from private sector providers of secondary care services, although this might compromise their commitment to ‘the NHS ethos’. The reforms also allow private sector providers of

primary care to enter the market and enable existing GP partnerships to compete with these providers.

The number of private providers entering the primary care market is relatively small but growing<sup>40</sup>. However, the vast majority of GPs are partners in the practice within which they work and most salaried GPs work within these practices rather than in private limited companies<sup>22</sup>. Additionally, although GP practices are independent businesses, GPs are entitled to membership of the NHS pension scheme. Furthermore, whilst practices are prohibited from selling goodwill (unlike other private sector businesses), there has been some relaxation of the rules on this as part of government's attempt to encourage new entrants to the market using APMS contracts. The ban remains in place for essential services, which comprise the vast majority of GPs' workload. GP practices are small businesses, therefore, but their relationship with the NHS makes them different from private limited companies. Practices operate according to a financial framework which is similar to that of other private-sector business partnerships, but their relationship with the NHS means that they straddle both public and private spheres. Although the BMA has expressed concern about the increasing provision of health services by private companies, APMS contracts are seen as helping GPs maintain 'control over the changing environment of general practice'<sup>41</sup>. There are incentives to engage with market reforms, but at the same time these reforms are depicted as threatening public-sector provision and the NHS ethos which the BMA claims that GPs hold dear.

## **2.3 Community pharmacy**

### **2.3.1 Historical context**

Community pharmacies are privately owned businesses contracted by the National Health Service (NHS) to provide pharmaceutical services. Prior to 1948 dispensing accounted for less than 10% of pharmacists' income, but following the creation of the NHS, 94% of people obtained their medicines from a registered pharmacy and dispensing activity grew, quickly forming the major source of income. This changed the nature of community pharmacy, with pharmacists moving from the front of the shop to the back, working in the dispensary.

During the 1950s and 60s prescription volumes continued to rise. As increasing numbers of medicines became available in tablet form, the need for pharmacists to compound medicines from constituent ingredients was dramatically reduced and pharmacists began to fade from the public view as access to them declined<sup>42</sup>.

By the early 1980s uncertainty about the future of pharmacy was widespread. In 1983 The Nuffield Foundation commissioned an

inquiry into pharmacy 'to consider the present and future structure of the practice of pharmacy and its potential contribution to health care and to review the education and training of pharmacists accordingly'. The Nuffield Report published in 1986 highlighted the 'distinctive and indispensable contribution' of pharmacy to make to health care<sup>43</sup>. Although extending the role of pharmacists to enable them to make this contribution would require the pharmacist to be able to leave the premises and in 1989 the Royal Pharmaceutical Society of Great Britain issued a statement that every prescription for a medicine should be seen by a pharmacist who should make a judgment about what action should be taken.

In 1996 the White Paper *Choice and Opportunity: Primary Care in the Future*<sup>44</sup> emphasised the need for community pharmacists to become more involved in the Primary Health Care Team. The 1997 White Paper, *The New NHS, Modern and Dependable*<sup>45</sup>, signalled further changes by giving professionals who make prescribing and referral decisions more financial and clinical responsibility.

Following on from this, in the context of large scale reform announced in *The NHS Plan, Pharmacy in the Future - Implementing the NHS Plan*<sup>46</sup> and *A Vision for Pharmacy in the New NHS*<sup>47</sup> contained proposals to modernise the contractual framework for community pharmacy in England. These documents stressed the role of pharmacy as an integral part of the NHS, emphasising its contribution to the delivery of high quality NHS services as part of the Government's declared intention to create a more flexible, choice-orientated health care service.

In 2002, the Department of Health (DH) piloted the Local Pharmaceutical Services (LPS) contract. These were local contracts intended to deliver local priorities, make better use of pharmacists' skills and enable pharmacists to work more closely with other health professionals. However, plans for a new national contract, which was being developed during the first wave of pilots, incorporated these aims (see below) and inhibited takeup amongst pharmacists.

Government has identified the three major challenges for pharmacy as meeting the changing needs of patients, maintaining professional standards and responding to a changing environment<sup>48</sup>. With regard to the latter, community pharmacy is becoming increasingly competitive. There has been a trend over time towards corporatisation in the community pharmacy, with the majority of pharmacists now employed by 'multiples' (defined as 6 or more pharmacies) as opposed to independently owned pharmacies. Despite the traditional image of the local pharmacy staffed by the owner, who is on first name terms with customers, the number of shops owned by large multiple (chain) pharmacies is growing, with 62% of the market belonging to this category<sup>48</sup>. This compares with 17% in 1969 and 34% in 1995<sup>49</sup>. In addition to pharmacists working in their own business and salaried employees working for multiples,

there are many employee pharmacists working in 'independents'. Furthermore, 38% of the pharmacy workforce is made up of locums<sup>50</sup> who may work in many different pharmacies, including independents and multiples.

Various training and accreditation processes have developed for non-pharmacists in community pharmacy, which are intended to allow pharmacists to make better use of their skills. With regard to dispensing, pharmacists are required to perform a 'clinical check' on prescriptions received, to assess the drug prescribed and dose, but can delegate other stages (dispensing the medicine and counselling) of the process to non-pharmacists (Accredited Checking Technicians or 'ACTs' and dispensing assistants).

Whilst pharmacists may not control prescribing and manufacturing of drugs, policy makers appear to recognise that pharmacists possess a distinctive expertise and in various countries reforms have been introduced to extend roles and consolidate and reward existing pharmacy skills<sup>51</sup>. In the UK, pharmacy's representational bodies have been involved in campaigns for reprofessionalisation, seeking to redefine the role as one which goes far beyond the dispensing of medicines. (For a brief review of recent campaigns and related publications see Edmunds and Calnan 2001, 944-945<sup>52</sup>). Much of the discussion and research concerning extended roles in the UK and beyond emphasises pharmacy's subordinate status relative to medicine (e.g. <sup>53</sup>, <sup>54</sup>).

However, Edmunds and Calnan<sup>52</sup> in their study examining 'reprofessionalisation' in community pharmacy highlighted divisions between 'retail pharmacists' (owners of independent pharmacies) and employee pharmacists working in large chains as holding back attempts to raise the profession's status. Initiatives to extend pharmacists' roles were seen as likely to benefit independent pharmacists who struggled to compete with large chains due to the latter's financial muscle. Yet, because their counterparts in large chains faced no such financial pressures, the benefits for chain pharmacists from taking on enhanced roles (in terms of economic autonomy) were fewer. Although as we outline above, the picture is more complex than a simple independent / multiple categorisation connotes, which implies that the potential for fragmentation and division may be greater than suggested by Edmunds and Calnan.

Whilst divisions may exist within the workforce, pharmacy contractors (as distinct from employees) were relatively united in their support for the new contract with 92.5% of those who voted in a national ballot on the subject, supporting the reforms<sup>55</sup>.

### 2.3.2 Contract reforms 2005

In 2005 a new national contractual framework for pharmacy in England came into effect. It encompasses three tiers: essential, advanced and enhanced services respectively.

**Essential services** must be provided by all community pharmacy contractors under the new arrangements. Dispensing is a key service under this heading.

**Advanced services** require accreditation of the pharmacist providing the service and/or specific requirements to be met regarding premises. A key service here is the Medicines Use Review (MUR). The aim of this service is to improve patient knowledge, concordance and use of medicines. The review involves identifying problems with a patient's medicines, providing advice to the patient and where appropriate, suggesting changes to the regimen to the patient's GP. Reviews will normally be carried out face to face with the patient. Telephone reviews are permitted, but only when it is not practical for the patient to visit the pharmacy. This policy reflects a recognition that community pharmacists can play an important role in the management of long-term conditions. A fee per review undertaken is payable, subject to a maximum number of reviews. Good communication and working relationships with local GPs are important in ensuring that the process runs smoothly.

**Enhanced services** are commissioned locally by PCTs. The potential exists to use the commissioning of enhanced services to help drive the redesign of services, move them closer to patients and reduce the demand for other services. The redesign of services requires good inter-professional relationships at local level and may require local commissioners to develop targeted resources, structures and policies to encourage progress in these areas.

Essential and advanced services form the 'nationally agreed' services and are not open to local negotiation.

About fifty per cent of budgeted remuneration for pharmacies is in the form of fees and allowances paid from a 'global sum' budget. Pharmacies also receive fees and allowances from their PCTs. The main one is the 'practice payment', which is a monthly payment for smaller pharmacies, or a fee per item dispensed for pharmacies dispensing more than a threshold level of items per month. A third source of community pharmacies' remuneration is the 'retained margin' i.e. the margin arising from the difference between the price at which a pharmacy purchases a medicine and the price at which the pharmacy is reimbursed by the NHS when the medicine is dispensed.

With regard to the latter, new pricing arrangements that came into operation as part of the contractual framework in April 2005, which reduced reimbursement prices for generic drugs that are dispensed in

high volumes. The largest of these (Category M drugs), accounts for about 55 per cent of all items reimbursed, and for about 86 per cent of all generic items reimbursed.

### **2.3.3 The goals and evolving policy context of the contract reforms**

During the course of the present study there were no major changes to the new contract. However a White Paper *Pharmacy in England: Building on Strengths – delivering the future*<sup>56</sup> was published in April 2008. This set out the Government's programme 'for a 21<sup>st</sup> century pharmaceutical service and identified practical, achievable ways in which pharmacists and their teams can contribute to improving patient care through delivering personalised pharmaceutical services in the coming years'. The White Paper proposed changes to the current NHS market entry system called 'control of entry' to one based on PCTs' assessments of local needs to commission services, as part of the policy of promoting choice and competition in the delivery of high quality, clinical care. It also contained proposals to enable PCTs to take effective action on quality grounds where contractors were not achieving acceptable performance standards.

In October 2009, the Responsible Pharmacist Regulations (2008) came into operation. These enable a registered pharmacy to continue to operate for the sale of General Sales List medicines for a maximum of two hours in a twenty four hour period (midnight to midnight) without the presence of a Responsible Pharmacist, subject to specified conditions. The impetus for these changes is a recognition that development of the pharmacist's clinical role and contribution to improving healthcare services, may be hampered by the inability (under previous legislation) of pharmacists' to be absent from the registered pharmacy premises from time to time.

As with the GP contract, recent reforms in community pharmacy encompass multiple and competing goals. For example policies to encourage pharmacies to provide advice and support appear to assume that this will improve patient adherence to medication regimes and imply that patients have knowledge deficits which can be addressed by advice from pharmacists. Yet tensions exist between health professionals and patients in a context where the latter may choose to exercise some degree of strategic non-compliance with prescribed medication regimes to enable them to achieve a balance in their lives and to attain a sense of well-being and control<sup>57</sup>. Policies to make pharmacies more responsive to consumers may render professionals more dependent on patients, which has implications for professional status and may threaten role extension.

## 2.4 General dental practice

Dentists treating NHS patients are usually “Providing Performers” (hereafter ‘principals’) who have a direct contract with the PCT or “Performers” (hereafter ‘associates’) who are sub-contracted by dentists who hold PCT contracts. Principals are accountable to PCTs for fulfilling contractual obligations. In 2008/9 of the total number of dentists performing NHS work, 32% were principals, with the remainder associates<sup>58</sup>.

### 2.4.1 Historical context

When the NHS was formed in 1948 the entire population was eligible for free dental treatment. Dentists were paid on a fee for item basis, which incentivised efficient treatment of the huge amounts of unmet need in the population at that time. Dentists over performed against government expectations causing concerns about the affordability of the new service, resulting in the introduction of dental charges in 1952.

The absence of financial incentives to keep patients disease free, with remuneration based on volume (how much drilling and filling takes place), as opposed to quality and/or appropriateness of work undertaken, encouraged a focus on delivering extractions and fillings. This state of affairs and a concern that the financial incentive structure could result in overtreatment led to the introduction of a new contract in 1990. The contract contained an element of capitation (around 20% of a dentist’s gross income) which was intended to encourage registration, promoting continuity of care. The contract can be seen as starting to redefine the dentist’s responsibilities moving from an obligation to render the patient ‘dentally fit’ via a course of treatment to a broader responsibility for maintenance of the patient’s oral health.

Higher than expected expenditure in 1991 resulted in an attempt to bring the expenditure on dental services under control by cutting fees paid to dentists. Understandably, this left the profession feeling unfairly penalised and has resulted in a progressive shift towards increasing provision of private dentistry. By the mid-1990s, with access to dental services for NHS patients becoming an issue, both the DH and the profession were in agreement that reform was needed.

At the start of the century it was clear that the government faced two policy problems; improving access and a need to reform the 1990 contract<sup>59</sup>. The latter was seen as a means of helping resolve the access problem, in addition to other policies which were implemented; an international recruitment programme and the commissioning of two new dental schools.



In 2000, *Modernising NHS Dentistry – Implementing the NHS Plan*<sup>60</sup> set out the Government's strategy for a modernised and more accessible service. It identified improving access as the top priority and promised to give Health Authorities powerful and flexible new tools for improving access to NHS dentistry, and monitoring performance of dentists. The desirability of encouraging prevention has been an ongoing theme in policy documents in the field of dentistry for many years. This theme was taken up in *NHS Dentistry: Options for Change*<sup>61</sup>, which espoused the view that '[c]are must be built around prevention and based where possible on lifelong care rather than episodic or reactive'.

In 1997 *The NHS (Primary Care) Act 1997* enabled the voluntary establishment of personal dental services (PDS) pilot schemes to explore alternative ways of delivering dental services, in particular general dental services, through local contracting arrangements. There was large variation in these contracts but all were locally commissioned by Primary Care Trusts and dentists were generally remunerated on a capitation basis, usually with incentives to recruit more patients. The patient fees, which made up approximately a quarter of the revenue stream of the service, were still collected on a fee for item basis. In general PDS practices saw a dramatic drop off in dental activity, with a fall in more complex treatments. Another worrying aspect for the DH was a fall in income from patient charge revenue<sup>59</sup>.

#### **2.4.2 Contract reforms 2006**

The expectation in the profession was that whole-system change of General Dental Services (GDS) would be based on the PDS piloting work. However, replicating what had happened in the PDS pilots on a national basis was not attractive for the DH. Instead in the 2006 contract, incentives were brought in to boost activity and reduce the risk to patient charge revenue. The contract introduced local commissioning of dental services but using a national contractual framework. Registration ceased to exist, and along with it the contractual responsibility for dentists to provide out of hours care for their patients. A new contract currency was introduced Units of Dental Activity (UDAs), grouping treatments into three bands, replacing some 400 fees for individual treatment items. A new simplified system of patient charges was also introduced corresponding to the three UDA bands (see Appendix 2). Each practice was given an annual target of UDAs to hit, and a price per UDA, based on their historical earnings and activity under the old contract less 5 percent.

As part of the contract reform process, responsibility for planning and securing NHS dental services was devolved to PCTs. Principals now enter into contracts with local PCTs and payment is based on an

annual sum rather than an open ended commitment to pay dentists fees for items of service delivered.

### **2.4.3 The goals and evolving policy context of the contract reforms**

There were no major changes to the contract during our study. However, in 2008 the House of Commons Health Select Committee was critical of the new contract, concluding that access was not improving quickly enough, despite very significant increases in the dental budget. They voiced concerns about the quality of the service provided and the ability of PCTs to manage contracts and commission services to meet local needs. This led the Secretary of State to commission an independent review of dental services. This report recommended a blended contract with a proportion of payments made for activity to incentivise provision of treatment and a proportion of the contract to pay for quality to improve access, provide effective preventive care and ensure continuity of care. This recommended robust piloting of the recommendations before major changes were made to the contract<sup>59</sup>.

A recurring theme in recent decades has been a desire to address the issue of inadequate access to dental care, whilst at the same time providing care in a cost effective manner. Policies which seek to constrain dentists' remuneration may prove counterproductive if they result in a reduction in the number of new entrants to the profession or encourage existing NHS dentists to transfer to private sector provision, reducing the capacity of NHS dentistry. In England, where patients contribute to the cost of their treatment, the likely impact of policies on patient charge income is also an important factor to consider when introducing changes to the way dentists are paid. Dental policy is further complicated by the lack of clarity concerning the goals of the service. The question of whether these goals encompass provision of a restricted range of treatments for everyone, or a full service for those on low incomes, remains largely unanswered. In this context, dental policy has at times, been less a matter of the implementation of central policy directives than the sum total of the actions of individual dentists and their interactions with patients.

In summary, dentistry is a policy area where goals are sometimes unclear, ambiguous and/or in conflict and the complex mix of issues involved makes it difficult to provide simple solutions to meet policy goals. Replacing over 400 fees for individual treatment items with three bands and capping activity may make life simpler for payers, but it is unlikely to be able to resolve the complex problems facing policy makers with regard to dentistry.

#### **2.4.4 Concluding remarks**

In this section we have described the historical and policy context for the three settings which are the subject of the study. In the next section we present a brief review of the literature which informed our theoretical approach to data collection and analysis.

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## 3 Frameworks for understanding incentives behaviour and performance in primary care

### 3.1 Introduction

The literature in the area of incentives is large and growing and much of it is concerned with financial incentives. Although recent reforms to primary care contracts encompass changes to financial incentives, the range of incentives which could potentially influence the behaviour and performance of PCPs is far broader than this. For the purposes of this report, therefore, we define an incentive as something that may encourage people to do something.

In addition to the literature demonstrating positive effects of changes in incentive structures (financial and otherwise)<sup>62, 63</sup> there is a substantial literature derived from a wide range of sectors on the potential for such performance management systems to generate unintended and dysfunctional consequences<sup>64</sup>. Due to the large volume of theoretical and empirical literature which may have some relevance to this topic and the need to limit the review to manageable proportions, it has been necessary to draw some boundaries with regard to the scope of the review. In what follows, a selective review of some of the literature, chosen for its relevance to the subject of incentives in primary care is presented.

We have also attempted to avoid duplication of other research. Celia Davies and colleagues recently undertook a review of the literature on incentives and governance, which provides an in-depth and highly accessible review of the literature in this area<sup>65</sup>. John Christianson and colleagues have recently reviewed the literature to assess the impact of financial incentives on the quality of care delivered by healthcare organisations and individuals and rather than reiterate its contents here we refer interested readers to this accessible report<sup>66</sup>. In this section we also discuss culture in the context of incentives and behaviour change, but we do so relatively briefly since our recent report *Changing Cultures, Relationships and Performance in Local Healthcare Economies*<sup>67</sup> contains an extensive (c. 6000 words) discussion of theories of culture. Interested readers should refer to this report for an in-depth discussion of the literature in this area. Furthermore, since incentives are often aimed at eliciting behaviour change and the voluminous literature on this arises from a broad range of disciplines, it has not been possible to present a review of the entire literature (from fields such as psychology and economics in particular, but also sociology, management science, politics and so on). Instead, elements of this literature have been reviewed, based

on their direct relevance to financial incentives for PCPs in the settings which are the focus of our study. What follows therefore is a selective discussion of the literature which has informed our approach to data collection and analysis.

### **3.2 Causes, contexts and realist review**

The approach taken to the theoretical literature from economics and psychology has been informed by the principles of realist review<sup>68</sup>. This involves examining the underlying causal mechanisms (e.g. how are incentives supposed to work to improve quality?) of a policy, as well as the context in which it is implemented in relation to the outcome. Whereas clinical treatments or technologies are ideally, evaluated in the rarefied context of randomised controlled trials (RCTs) and are conceptually simple (e.g. drug 'Z'), interventions such as the introduction of financial incentives for quality are epistemologically complex. Furthermore, the contexts in which they are applied are diverse. RCTs focus on inputs and outcomes, with causality being established when cause 'X' is switched on (experiment) and effect Y follows. In contrast, realistic inquiry is informed by a generative model of causality. This means that to infer a causal relationship between two events, there needs to be an understanding of both the underlying mechanism that connects them and the context in which they occur.

So, from this perspective, in order to approach the issue of whether an incentive produces the intended behaviour (leaving aside the question of whether there is agreement that what is measured is an adequate proxy for a desired outcome), it is necessary to make explicit the assumptions about the underlying mechanisms of such incentives. In addition the contextual factors which influence the extent to which the causal mechanisms will result in intended outcomes must also be identified.

### 3.3 Economic explanations of responses to incentives <sup>i</sup>

With regard to causal mechanisms, there appears to be an implicit assumption underpinning much of the traditional neoclassical economics literature on incentives that those on the receiving end of incentives ('agents') derive their utility solely from the money income attached to incentives and disutility from the effort exerted on behalf of the payer ('principal')<sup>69</sup>. More recently, some economists have approached the issue of incentives from a perspective which recognises that agents may get their utility from things other than money. For example, the target income hypothesis suggests that clinicians have a target income which they wish to maintain and some studies have found support for this<sup>70, 71</sup>. So agents may trade off potential gains in income for more leisure time.

There is a growing literature examining public service motivation as opposed to motivation more generally<sup>ii</sup>. For example, Avenish Dixit highlights the importance of non-monetary incentives such as the fact that agents share 'some idealistic or ethical purpose'<sup>69</sup> served by the organisation in which they work. Another factor highlighted by Dixit is 'professionalism'. However, Dixit states that professionalism 'goes naturally with career concerns'<sup>69</sup> (and draws on a formal economic model of career concerns to illustrate his argument). In terms of the primary care professional in our study, we might expect a slightly different conceptualisation of 'professionalism', which is less reliant on career concerns, to be more appropriate.

Economic theory also suggests that the recipient of an incentive must be compensated for the additional cost of undertaking the extra work required to hit a target. Whilst, this might imply that money is a key motivator, it would seem reasonable to assume that if clinicians incur additional costs as a result of undertaking extra work, they will seek reimbursement of these costs. The extent to which clinicians undertake calculations of incremental costs and benefits when responding to incentives is uncertain. However, evidence from a recent study of an initiative offering financial incentives for quality in England suggests that this is not necessarily the case<sup>72</sup>.

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<sup>i</sup> For classification purposes we divide our discussion along disciplinary lines, however, in practice, there is a blurring of boundaries, with some economists drawing on psychological theories, some social psychologists and sociologists using shared frames of reference and so on. Furthermore, the field of neuroeconomics draws on techniques used by cognitive psychologists (functional magnetic resonance imaging) to challenge economic views of behaviour as rational, bounded or otherwise. See for example Camerer, C. *The Potential of Neuroeconomics*, *Economics and Philosophy* 24:369-379; 2008.

<sup>ii</sup> For an accessible review see Perry, J. and Hondeghem, A. *Motivation in Public Management*: Oxford University Press, 2008.

Additionally, from the literature on loss aversion<sup>73</sup>, which suggests that people prefer avoiding losses to making gains, it might be hypothesised that clinicians are keen to avoid a loss, even if they are required to work harder to avoid such a loss.

Julian le Grand's<sup>74</sup> theory of public motivation classifies behaviours and responses to incentives as either knavish or knightly. The former concerns the pursuit of self-interest. Knaves may be motivated to help others, but only if it serves their own interests. In contrast, knights are motivated to help others without the prospect of personal gain and may even do so in circumstances where this is to the detriment of their personal interest. Le Grand's analysis emphasises the need to design incentive structures that 'align knightly and knavish motivations in a fashion that directs the individuals concerned towards producing the desired outcomes'.

Writing about the 1990 contract reforms in English dental practice Taylor-Gooby et al<sup>75</sup> identified the co-existence of 'knavish and knightly motives' with a combination of these leading to dentists leaving the NHS. Exit was attractive since it promised higher earnings and increased autonomy, but dentists also explained their decisions in terms of the ability to spend more time with patients and provide higher quality of care in the private sector. Exit<sup>76</sup> may not be an option, in a context where incentives damage loyalty to the organisation (to the NHS in the case of dentists in 1990); the only recourse for PCPs may be to voice grievances and remain where they are<sup>77</sup>.

Much of the theory is concerned with individuals, but PCPs work in organisations with team members. It may make sense therefore, to assume that responsibility for certain areas of activity will be shared and will require a 'team' effort.

New contracts and related incentives in primary care require individuals to work together. For example the new GMS contract introduced in 2004 is a contract with the practice as opposed to individual GPs. This implies a shared responsibility for hitting targets. If cooperation within a group is important for achieving objectives, then rewarding individual performance can detract from team performance. However, economic theory suggests that setting incentives at the group level (as opposed to the individual clinician level) may mean that incentives for individuals to perform are weaker. From the perspective of the payer, in terms of the causal mechanism, whether desired performance is achieved by peer pressure to ensure adequate effort across all clinicians, or by more committed individuals compensating for underperforming colleagues may be irrelevant, although both could be hypothesised as causing improved performance.

Despite concerns about free-riding, team incentives are used in various settings including in the public sector. The NHS is different from the sort of organisations studied by many authors whose work

has been influential in this area, but who draw on private for profit partnerships or companies<sup>78</sup>. The literature on public sector motivation more generally suggests that public servants respond to factors that financial incentives schemes have tended to ignore. Boardman and Sundquist<sup>79</sup> identify 'perceived public service efficacy' which concerns perceptions about the benefit employing organisations provide to the public as an important factor here. Higher levels of 'perceived public service efficacy' are associated with lower reported levels of role ambiguity and higher job satisfaction and organisational commitment. With regard to general medical practice, there are various models of organisation including practices with all staff including GPs being salaried, although the majority are private partnerships. Yet not all staff who work in these practices are partners which raises questions about the extent to which factors such as employment status, bonus systems, vocation and so on interact with any desire to 'free ride' in these settings. With regard to free riding, although the potential for this exists in theory at least, in practice, the context is likely to be important in influencing the extent to which this happens.

Furthermore, although GPs tend to see themselves as part of the NHS<sup>77</sup> in community pharmacy and dentistry organisations, the business aspect of their practice may mean that they have less in common with mainstream NHS organisations than their general medical practice counterparts. So the extent to which the argument that theories based on private sector organisations are not applicable is unknown.

Where the effort (or proxies for effort such as patients on an individual's list with QOF actions overdue for example) of individuals can be observed, there may be less potential for free riding<sup>80</sup>. Although as we discuss below, if organisations employ monitoring and surveillance mechanisms which convey that individuals are not trusted to perform in the absence of such mechanisms, this may act to demotivate people.

### **3.4 Psychological theories and incentives**

There is a growing psychological literature concerning intrinsic motivation, or the desire to do something for its own sake, as opposed to responding to some external incentive. This evidence suggests that the provision of performance-contingent rewards may undermine or 'crowd-out' intrinsic motivation<sup>81</sup>. Whilst individuals may respond to financial incentives in the short-run, they may be negative reinforcers in the long-run, since they may conflict with intrinsic motivation (the individual's desire to perform a task for its own sake) by signalling to the individual that they are not trusted to perform in the absence of inducements.



Feelings of competence and autonomy appear to be important for intrinsic motivation. Feedback is also important. Positive feedback is seen as facilitating intrinsic motivation by promoting a sense of competence. Negative feedback, can reduce individuals' perceptions of their competence, leaving them feeling demotivated, reducing both intrinsic and extrinsic motivation<sup>82</sup>. However, whilst praise may increase motivation, the relationship between feedback and performance is complex. A widely cited meta-analysis of 131 studies found that although feedback increased performance on average, over a third of the feedback interventions actually decreased performance<sup>83</sup>. Praise and verbal feedback was less effective as a reinforcer than computerised feedback that was task focused, feedback that created a clear feedback-standard discrepancy at the task level and feedback that supplied the correct solution at the task level (such as computerised prompts for QOF actions).

Programmes involving surveillance and external rewards have the potential to damage intrinsic motivation<sup>84, 85</sup> and potentially do more harm than good. Reward systems that promote feelings of competence and autonomy, however, are likely to enhance intrinsic motivation<sup>86</sup> and a context perceived as supportive rather than pressuring will further enhance motivation<sup>81</sup>. Incentive programmes involving extrinsic rewards implicitly assume that rewards are necessary to induce desired behaviours. People are not driven only by money, however. As Frey, an economist, argues in his "not just for the money" theory of personal motivation, financial rewards are only one of a number of important motivators of professional behaviour<sup>87</sup>. It would therefore be a mistake to think that policy goals in primary care could all be addressed by getting the 'correct' level of financial reward.

The perception of whether rewards are acknowledging or controlling is likely to be related to the form of rewards offered. Financial rewards which are not dependent on specific task engagement or not anticipated (for example, a surprise bonus payment) do not appear to undermine intrinsic motivation<sup>81</sup>. However, the financial incentive scheme embodied in the new GMS contract involves rather different kinds of incentives, which are very much dependent on performing tasks to reach targets. This sort of scheme might be expected to reduce intrinsic motivation therefore.

The potential adverse effects of external incentives on motivation are likely to be diminished where individuals identify with the goals and values of incentive programmes and feel that they have a degree of autonomy in their delivery. In other words, when designing incentive programmes, it is important to consider the manner in which they are implemented and the extent to which the context is perceived as supportive. Ideally, incentive programmes should aim to induce "identified regulation," a state in which external incentives are aligned with internal drivers and, "where people have a full sense that the [incentivised] behaviour is an integral part of who they are

and...is self-determined<sup>82</sup>. The extent to which the tasks being incentivised are aligned with an individual's 'goals, motives or values'<sup>88</sup> is an important factor highlighted in the psychological literature on motivation. However, this raises questions about where values come from and what happens when incentives create a conflict of values.

With regard to motivation more generally, various authors emphasise 'internal' factors such as goals and values. Lower level goals and motives are conceptualised as relating to satisfaction of basic needs such as safety and job security<sup>89</sup>. Higher level goals and motives relate to fulfilment and satisfaction (e.g. sense of self-determination, fairness). According to Herzberg et al.<sup>90</sup>, motivating factors such as achievement, the work itself and recognition determine the level of motivation and satisfaction.

In addition, one's self-concept (and related factors such as self esteem and self-efficacy - an individual's confidence in his/her ability to accomplish specific work tasks) are also seen as likely to be influential in responses to incentives<sup>91</sup>. Individuals with a strong self-concept in relation to their work and a strong sense of self-efficacy are more likely to accept difficult organisational goals and tasks and to persist longer in the face of obstacles than persons with poor self-concept and low self-efficacy.

Expectancy theory hypothesises that individuals will assess the extent to which their performance will lead to a measurable result (*expectancy*), the likelihood that the result will lead to a given reward (*instrumentality*) and the likely satisfaction associated with that (*valence*)<sup>92, 93</sup>. Emphasis is placed on the individual's capacity rather than their willingness to respond. Goal setting theory is concerned with the core properties of an effective goal. It suggests that in order to motivate individuals, goals should be within the attainment level of individuals, participative, clear and unambiguous and clearly understood<sup>94</sup>. Feedback on performance in relation to goals is a key aspect of the theory. (Although as we noted above if feedback involves heavy surveillance, then this may be counterproductive).

Equity theory is concerned with an individual's perception of fairness, which will impact on their behaviour<sup>95</sup>. Equity theory suggests that individuals will compare their inputs or efforts and associated rewards with others around them, perceiving themselves as being treated fairly if the ratio of inputs to rewards is equivalent to those around them. This means that in the context of primary care salaried staff may accept that those who own the organisation receive higher levels of reward since the latter have greater responsibility and input. However, if the effect of reforms is to increase owner remuneration and/or increase the workload of salaried staff, with no corresponding adjustment in rewards, then these staff will perceive themselves as being treated unfairly. A perception of unfair distribution can lead to

attempts to redress the balance by seeking increased rewards, reductions in workload or exit from the organisation.

In addition to these internal factors, there are wider organisational influences on attitudes and behaviours. Even if changes in organisational structures are likely to improve motivation more generally, the transition itself can have negative effects on motivation.

### **3.5 From the atomistic individual to the social context**

The foregoing literature is generally concerned with the responses of individuals to incentives. It provides some answers to the question 'how are incentives supposed to work?' But in general, by failing to consider the wider context in which these responses are situated, it tends to present a rather atomistic view of behaviour. In contrast, sociological theories have been accused of emphasising the collective and the social at the expense of individual agency. As the economist James Duesenberry described it 'economics is all about how people make choices; sociology is all about how people don't have any choices to make'<sup>96</sup>.

However, the atomistic theories of behaviour derived from economics and cognitive psychology, tend to downplay or ignore the concept of a shared professional identity, with associated norms and behaviours. Moving to a more social (as opposed to atomistic individual) perspective provides some insights into the contextual issues which influence behaviour<sup>iii</sup>.

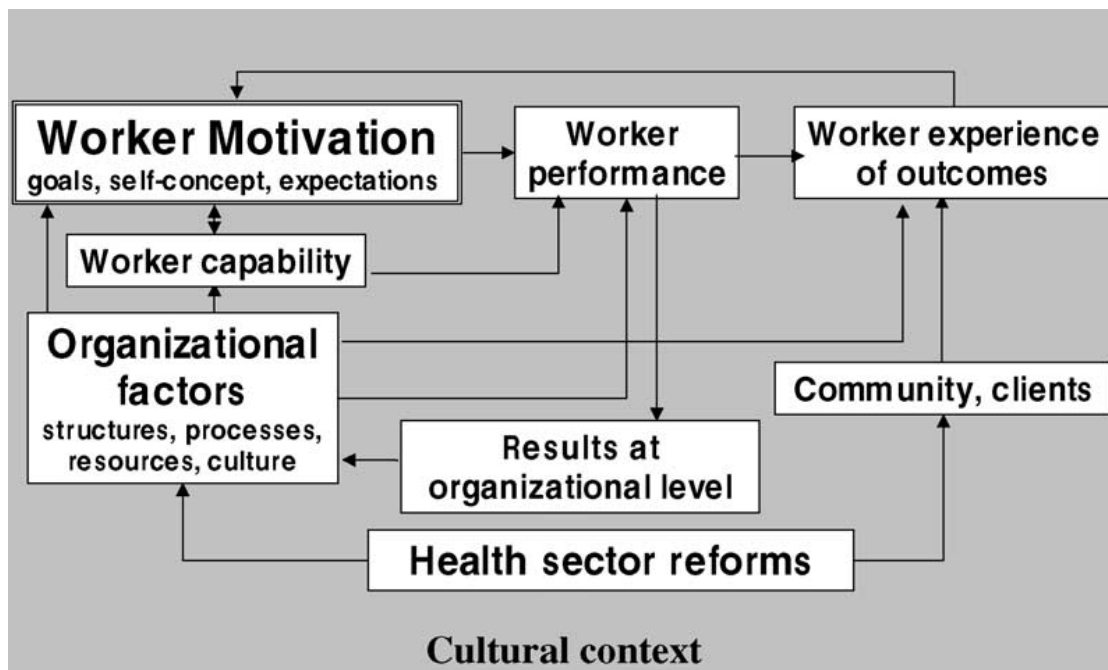
Furthermore, features of the health system may have an impact as well. More widespread health reform (as opposed to immediate organisational factors) may threaten motivation and behaviour if it embodies values that are antithetical to those on the receiving end. For example, the rejection of the 1990 GP contract in the UK by the GP profession has been interpreted as a rejection of the 'contract state' and related market reforms promulgated by the Conservative government<sup>18</sup>.

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<sup>iii</sup> Though more recently some economists have argued that professional codes and norms may dilute or eliminate the uptake of perverse (financial) incentives which encourage professionals to provide care that is sub optimal (e.g. Andersen, LB What determines the behaviour and performance of health professionals? Public service motivation, professional norms and/or economic incentives. *International Review of Administrative Sciences* 2009; 75: 79-97).

Theories which attempt to take account of the broader organisational, system and cultural contexts in which PCPs are working are likely to assist in understanding their responses to incentives. Figure 1 illustrates these broader and proximal impacts on motivation.

**Figure 1. Influences on motivation (reproduced from Franco et al. 2002)<sup>88</sup>**

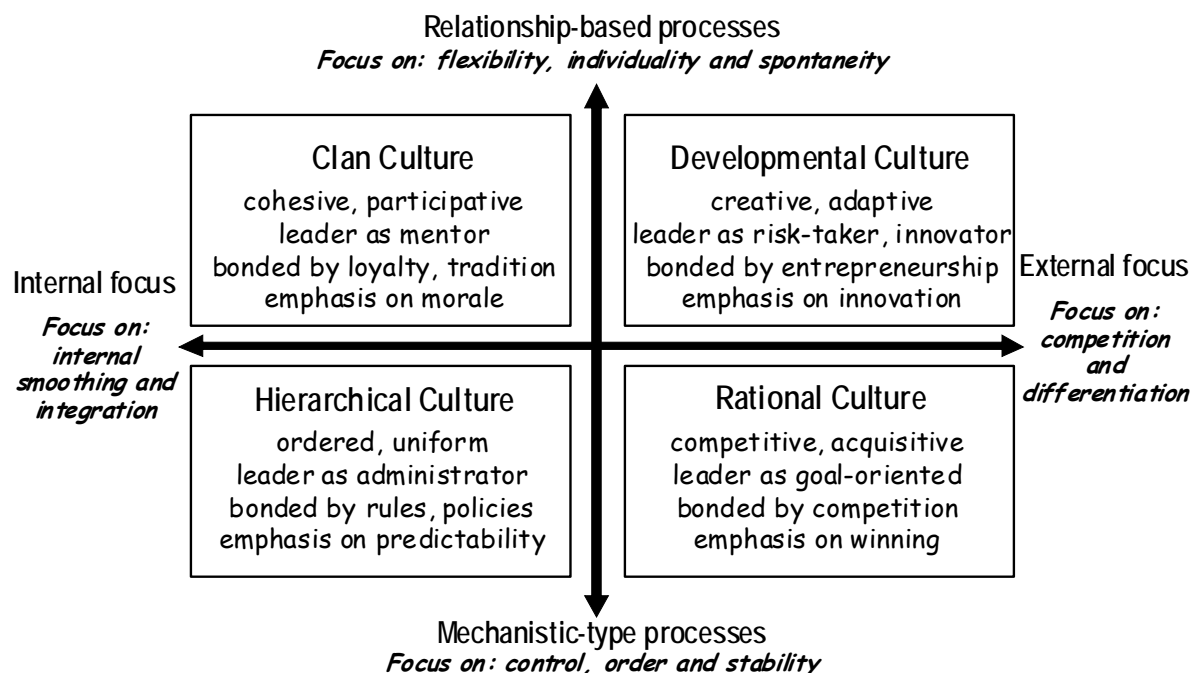


Many reforms are aimed at changing values, as opposed to merely structures, but although values are influential in determining attitudes to change, they do not exist in a vacuum. An individual's experience of the outcomes of change processes is likely to influence the evolution of 'internal' factors which influence their attitudes to work<sup>88</sup>.

In attempting to understand and predict behaviours and performance it makes sense to examine their relationship to organisational culture. The subject of organisational culture had received little attention with regard to community pharmacy and dentistry organisations. However, in a recent SDO funded study<sup>67</sup> we used the competing values framework to explore the dominant culture of a range of healthcare organisations, including GP practices. Experience with the competing values framework suggests that one of four types, clan, developmental, hierarchical or rational, tends to dominate in an organisation, although most organisations are a

combination of all types. Figure 2 below depicts the salient features of these four types.

**Figure 2. 'The competing Values Framework' for modelling organisational culture.**



Data collected from sampled GP practices suggested an overwhelmingly clan orientation. The contract reforms aimed at introducing greater competition in general medical practice and the QOF target regime, which implies greater standardisation and potentially less flexibility appear to be better suited to organisations with a predominantly rational culture. In terms of the Practice Based Commissioning reforms, which attempt to bring GPs together to commission services for local populations, we might expect that the internally focused perspective which characterises organisations with clan cultures might present a barrier to practices engaging externally with other neighbouring practices and health organisations more generally. Our research also showed a marked shift from Clan to Rational cultural orientation for PCTs.

Literature from the sociology of the professions draws our attention to the fact that PCPs belong to professional groupings which exhibit

shared norms and behaviours. Expert knowledge is seen as a key factor influencing autonomy and power. A group's access to and control of knowledge and its ability to define the evaluative criteria by which its work should be judged underpin professional jurisdiction and autonomy<sup>97</sup>. Literature in this area suggests that the introduction of measures to increase professional accountability and enforce formal standards may clash with the desire for professional autonomy<sup>98, 99</sup>. In the context of the medical profession, collegiality, or ostensible equal status amongst members of the profession, is seen as important. This serves a dual purpose. It socialises members into an attitude of loyalty to colleagues and presents an image to those outside the profession that all its members are competent and trustworthy. Eliot Freidson saw the use of formal standards developed by one (knowledge) elite within medicine and enforced by another (administrative) elite as threatening collegiality and professional unity. It should be noted, however, that autonomy is never absolute<sup>100</sup>.

Research has identified the emergence of new strata or elites, as a consequence of the new GP contract and Practice Based Commissioning, with groups of doctors involved in surveillance of others and action to improve compliance in deficient individuals and organisations English primary medical care<sup>77</sup>. However, early indications are that these developments have not led to the consequences which Freidson predicted. Instead there appears to be increasing acceptance of the legitimacy of professional scrutiny and accountability, suggesting that new norms are emerging in English primary medical care, the possibility of which Freidson's analysis fails to take account. With regard to the impact of the 2004 GP contract reforms, these early indications are based in part on a study of two practices in the early phase of the contract. It appears sensible therefore, to investigate further, the link between incentives, behaviour and performance, particularly in a context where accounts differ on the likely effect of these on professional norms and attitudes.

Literature from organisational studies and the sociology of organisations has been increasingly concerned with the organisational dimension of expert work. Much of the focus in this literature is on professional service firms (PSFs) and their structures and ways of working. The work undertaken by the PCPs which are the focus of our study involves a high degree of expertise, yet the issue of how organisations and professions interact and the evolving relationship between them has received relatively little attention. Many studies focused on the internal organisation of PSFs, ignore or understate the wider context, in terms of the role of occupations as collective groups outside of organisations. Similarly in terms of the sociology of the professions, although wider influences on the development of professions are acknowledged (e.g. members as a group beyond the organisation, service users, the state and

universities) there is often little attention paid to the role of organisations in these developments. Yet the ways in which organisations (as opposed to individual professionals) respond to reforms is likely to influence life in organisations and professional status more generally. Mindful of the gap between these bodies of literature, it would appear that making a more explicit connection between organisations and professions as collective agents will enable us to examine professional responses to the changes posed by new organisational contexts.

In terms of the broader context, of reforms in public services more generally, changes in primary care in recent decades have attempted to import private sector techniques and principles to what were depicted as outdated, inefficient and unresponsive public services. Various writers have described this 'New Public Management' (NPM) in different ways<sup>101, 102</sup> but Power's description captures features common to most of these definitions.

*"It emphasises cost control, financial transparency, the atomisation of organisational sub-units, the decentralisation of management autonomy, the creation of market and quasi-market mechanisms...contracts and enhancement of accountability to customers for the quality of service via the creation of performance indicators"*<sup>5</sup>

There has been a tendency for commentators to describe NPM as threatening the power and autonomy of professionals, with managerial (as opposed to professional) values in the ascendancy. From this perspective, the incentives for compliance with target regimes relate to the fear of sanctions. Drawing on the psychological theories above would suggest that NPM reforms will demotivate professionals. The depiction of professionals as losers and managers as winners may be somewhat crude, but the definition above resonates to some extent with recent contract reforms in primary care. It might be argued that since GP practices, pharmacies and dental practices are businesses receiving income from NHS and non-NHS sources they are already used to working in the way described and the NPM literature is not relevant. However, given the emphasis in new contracts on 'contracts and enhancement of accountability to customers for the quality of service via the creation of performance indicators'<sup>5</sup> it seems that these theories may have some relevance in all three of the contexts which are the focus of our study.

At the same time, in many of these settings there is a blurring of the boundaries between managers and professionals. Furthermore, although dentists share the fate of many public sector employees in terms of having reforms imposed on them, for pharmacy contractors and GPs, reforms to contracts were introduced following support in a national ballot. In their analysis of the 1990 dental contract reforms Calnan et al reported that conversion to private practice was seen as a difficult choice, compromising professional values concerning the

protection of patients' interests<sup>103</sup>. Similarly, GP opposition to the new contract in 1990 also reflected opposition to the 'contract state' and related market reforms. Taken together these factors suggest that the literature on NPM is relevant to the subject of incentives, behaviour and performance of primary care professionals. The way these different factors play out in practice is explored in our empirical analysis.

### 3.6 Drawing threads together

Considering the empirical literature on the behaviour of PCPs in the context of incentives, it seems clear that, despite the theories which highlight the negative consequences of financial incentives, such incentives can powerfully influence behaviour<sup>104</sup>. Much of this literature in health settings is based on medical professionals, but other professions are not immune from such influences. For example, self-employed dentists have been found to treat patients who are exempt from payment more intensively than their salaried counterparts<sup>105</sup>.

The 1990 GP contract, which provided financial incentives for cervical cytology and immunisation resulted in an initial widening of inequalities but over a period of about 7 years the gap narrowed so that there was an overall halving of inequalities between deprived and affluent areas<sup>106, 63</sup>. This illustrates that incentives can produce behaviour changes which are in line with policy goals.

At the same time, there is also a body of evidence illustrating performance improvement in the absence of financial incentives<sup>107</sup>. Given the wide ranging and conflicting goals which the new contracts are intended to achieve, there is a need to go beyond financial incentives, to look at incentives more broadly and in context. Incentives which reduce morale but improve performance in the short term, for example, may have damaging effects for recruitment and retention in the longer term.

Based on our aims and our initial knowledge of the literature prior to commencing the study we identified a number of tracer issues as follows:

- Does paying PCPs to do something mean that they do (more of) it?
- What is the effect of employment status on performance and motivation?
- What is the impact on team organisation and relationships?
- How does the distribution of rewards impact on performance and motivation?
- What surveillance mechanisms are in place and how do these influence responses/attitudes to incentives?



- What is the effect of incentives to improve processes of care on patients' perceptions of care/services provided?
- Are there any unintended consequences for patients and will they have differential effects which disadvantage or privilege particular patient groups?
- Is there evidence of ceiling effects or the pursuit of target, as opposed to maximum, income? And is there evidence that PCPs are willing to forego income in exchange for other things (for example increased leisure time)?
- What is the impact of size of organisation? Are there free-rider effects in larger organisations and if so, how are these dealt with?
- What is the potential for 'gaming' the system and is this exploited in practice?
- How does the development of commissioner incentive structures (e.g. a fixed budget for care) impact on PCP provider behaviours and vice versa?

These issues were used to guide our investigation. In addition, the emphasis in recent reforms is on the expansion of competition and choice. Given the literature highlighting health care professionals' NHS affiliation<sup>103,77</sup> and the way that wider health sector reforms act to influence public sector worker motivation<sup>88</sup>, we also added another tracer issue, which is

- In what ways do policies to increase choice and competition impact on PCP behaviours and attitudes?

### **3.7 Concluding remarks**

This section has discussed the literature which informed the study and outlined the questions arising from it. The next section describes our research design and methods.

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## 4 Methods

### 4.1 Introduction

This section describes the research design and the methods used in the study. The aim is to present sufficient description to enable readers to understand what we did and why and to make sense of the subsequent sections of the report.

### 4.2 Research design

We examined the impact of incentives on PCP behaviours using a combination of quantitative and qualitative methods. Since PBC involves changes to incentives in general medical practice, we examined these impacts as they relate to both provider and commissioner roles of PCPs. As outlined in section 3, we have approached this using a framework, for studying and comparing different forms of incentive on PCPs in the NHS context, based on the identification of tracer issues and other questions derived from the literature.

We adopted a much broader approach to incentives than focusing on financial incentives alone in an attempt to explore the wider range of complex and interconnected factors influencing behaviours, attitudes and motivation in our PCP settings.

The recognition that we would be investigating a complex range of factors led to an initial research design based on recruiting participants in a small number of health economies and following these over time. The intention was to combine quantitative and qualitative data from the organisations concerned in addition to conducting national quantitative analyses using routine datasets. Difficulties in recruiting resulted in a change of design, which meant that a more opportunistic approach was taken (see Appendix 3). Whilst this was helpful in boosting recruitment, a limitation of this approach is that the sample may be more negatively predisposed to the contract reforms we studied, than the general primary care professional population, since those with grievances to air may be more willing to consent to participate.

#### 4.2.1 Qualitative data collection and analysis

In terms of the qualitative component we used interviews as our main source of data, with most participants being interviewed only once. We also conducted a focus group with dental vocational

trainees (VTs) in year 3 of the study. To obtain patient perspectives on primary care experiences we interviewed 30 service users in Year 3 of the study.

For PCPs and PCT staff, we analysed responses by staff grouping (e.g. salaried GPs, GP partners, practice nurses etc) and by year of interview. In our findings we have tried to reflect this approach, presenting quotes from a range of staff and reflecting responses at different time points to do justice to the large number of interviews conducted and range of views expressed.

In addition, interview data from GPs in the USA were collected by one of the authors (RM) as part of a Harkness Fellowship study into Pay for Performance in primary care there. These data were compared and contrasted with the data from English GPs to provide further insight regarding the design of Pay for Performance schemes<sup>108, 109</sup> (see Appendix 4 for further details).

We compared doctors' attitudes to QOF with attitudes to the statewide initiative in California. Both incentive schemes involve paying GPs based on performance against targets, but the number of targets is much greater in QOF compared with the California programme. QOF allows GPs to exclude patients (or report exceptions) if they refuse treatment, whereas excluding noncompliant patients is not permitted in the California programme. English GPs face a single payer and 1 pay-for-performance programme. Doctors in California, however, face other targets and pay-for-performance initiatives in a context of multiple payers and payment rules. In addition, in England, QOF was part of a broader programme of reform that greatly increased investment in primary care. In contrast, in the US context, there has been little new investment in primary medical care.

To understand each system and the unexpected consequences that might arise from pay for performance, we conducted a comparison using face-to-face interviews with 40 primary care doctors. In the English sample (20) doctors were drawn from 2 regions. In the California sample (20) doctors were drawn from 4 organisations that ranged in size from 600 to 3,000 GPs and health care clinicians. In the largest of these organisations a decision had been taken to link a large percentage (up to 30%) of physician remuneration to the achievement of quality targets. In the other physician organisations, the percentage of remuneration linked to targets was substantially less (less than 5%). All English GPs in the sample used electronic medical records compared with only 7 GPs in the US sample.

The sample was identified using snowballing (a small number of informants put the researcher in touch with others, who then nominated colleagues and other contacts, and so on), a sampling technique used in qualitative research. The GPs interviewed worked predominantly in urban settings, though the populations served ranged from affluent to disadvantaged. To capture a broad spectrum

of experiences and views, we sampled both salaried and self-employed GPs.

All interviews for the research were digitally recorded and transcribed verbatim. The analysis of transcripts involved members of the research team reading and rereading the transcripts and meeting regularly to discuss emerging issues and interpretations, enabling the identification of key concepts and themes. Codes were created on the basis of these themes and linked to the data collected using a software package, Atlas ti. These themes were fed back to the wider members of the team who acted as a critical sounding board to provide feedback on the emerging themes and interpretations of the data.

With regard to the US data, the lead author and one other investigator (MR) read and reread transcripts to highlight themes in an open ended way. In addition, themes were compared with those identified from the English data. A further element involved assistance with analysis and interpretation of data and knowledge on the US context from two US based researchers (Joe White and Ted Marmor), who read initial interpretations of data, provided contrasting and complementary interpretations and added important contextual information relating to US healthcare.

In addition to

- a) An open ended approach to data coding
- b) A comparison of themes across the data sets (in terms of comparison across the English data and a comparison of GPs in England and California)

We undertook a third strand of analysis. Since we had identified tracer issues at the outset of the study, we used these as a framework against which to classify our data.

In terms of the data collection and analysis the research team was divided into three areas, with a team in each area (general medical practice, general dental practice and pharmacy). Three team members were involved in data collection and analysis in all three areas. We then circulated themes and findings to all three teams in order to generate constructively critical comments from team members on areas which had not directly involved them. This provided an additional level of scrutiny and testing for the qualitative analysis process.

#### **4.2.2 Quantitative data collection and analysis**

The quantitative analyses focus largely on PCPs as providers, in line with our original plan. In the following sections we describe our overall method in relation to each of the three PCP settings. Due to

the range and volume of data available for general medical practice, we have undertaken more extensive analyses, in this area compared with pharmacy and dentistry. Further detail is provided in Appendix 5.

***Using national and NPCRDC datasets to examine changes in behaviour in general medical practice.***

We monitored the practices' performance over time, by drawing on routinely available national datasets. Since there are no national performance data for the period prior to the introduction of the contract, we drew on a dataset from the National Primary Care Research and Development Centre, supplemented with further data collection to allow us to compare 'quality' as measured on a range of indicators, before and after the introduction of the new contract<sup>110</sup>.

We also examined changes in practice team size and composition, and the workload of doctors and nursing staff, before and after the introduction of the contract<sup>111</sup>.

In addition to these before and after studies, we examined the relationship between socioeconomic inequalities and delivered quality of clinical care, following the introduction of the contract<sup>112</sup>.

We investigated the impact of changes to QOF minimum thresholds introduced in 2006.

We also investigated the rate of exception reporting for 65 clinical activities and the association between this rate and the characteristics of patients and medical practices<sup>113</sup>.

***Using national datasets to examine changes in behaviour in general dental practice.***

Our plan was to obtain national data to explore performance over time in successive years of the project. In addition we planned to undertake a number of analyses to assess the relationship between performance and a range of variables including deprivation of population served, and practice/ organisational characteristics such as size. Due to changes in data access arrangements following the incorporation of the former Dental Practice Board into the NHS Business Services Authority (BSA), we were unable to access all of the data which had previously been available. This has limited the range of analyses undertaken therefore.

Since April 2006, new contracts were measured using the new currency of UDAs which is less detailed than was the case under the previous regime. We examined trends in certain signature treatments to provide information on changes in practice following the introduction of the contract.

***Using national datasets to examine changes in behaviour in community pharmacy.***

The areas of interest and approach were as follows:

**Essential services:** We focused on repeat dispensing activity. Two thirds of prescriptions generated in primary care are for patients needing repeat supplies of regular medicines<sup>114</sup>. This service allows patients on long-term medication to obtain their medication directly from the pharmacist of their choice rather than going back to their GP to obtain a prescription for each instalment first. This service was introduced into the essential services component in April 2005 with the new contract. Prior to this, repeat dispensing was piloted and an evaluation by team members found that take-up was relatively slow, despite the fact that differences in workload and skill-mix associated with repeat dispensing were not sufficiently large to be noticeable on a day-to-day basis within a pharmacy setting<sup>115</sup>. The quality of individual relationships between GPs and community pharmacists was identified as a key factor influencing progress.

Under the new pharmacy contract, reimbursement for repeat dispensing involves an annual fee which is automatically paid on a monthly basis in equal instalments. This fee is paid regardless of volumes dispensed. In addition, a fee per item dispensed is payable as with other dispensing activity. National data on repeat dispensing are reported annually and we discuss trends in these in our findings section.

**Enhanced services:** From 2005/06 PCTs are required to complete annual returns reporting on enhanced services commissioned from community pharmacy settings. These data are at PCT, as opposed to community pharmacy, level. The potential exists to use the commissioning of enhanced services to help drive the redesign of services, move them closer to patients and reduce the demand for other services. These data are reported annually and we discuss them in our findings section below.

**Advanced services:** We focused on MURs. The aim of this service is to improve patient knowledge, concordance and use of medicines. The review involves identifying problems with a patient's medicines, providing advice to the patient and where appropriate, suggesting changes to the regimen to the patient's GP. Reviews will normally be carried out face to face with the patient. We obtained data on MURs since the introduction of the contract and categorised these according to type of pharmacy as well as plotting changes over time.

The trend in MUR activity is discussed in our findings section below. We also analysed this in terms of the split between independents and multiples.

### **4.3 Concluding remarks**

In this section we have briefly described the research design and the methods employed in the study. In the following three sections we present our findings as they relate to general medical practice, community pharmacy and general dental practice respectively.

## 5 General Medical Practice – Research Findings

### 5.1 Introduction

We first present details of participants who were interviewed as part of the study. This is followed by discussion of our findings in terms of the tracer issues we outlined in section 3.

The total number of participants interviewed in general medical practice settings was 171. The characteristics of these participants are illustrated in tables 1 to 3 below. Table 4 illustrates the timing of the interviews. At this point we also include the characteristics of the patient and PCT participants (tables 5 and 6 respectively) who were interviewed regarding all three primary care professions.

**Table 1. Total General practitioner interviews†**

GPs	Total number	No. of years qualified* (mean plus range)	Gender (% F)	No. of practices	No. of PCTs
Partners	71	23.4 (6 to 41)	29.6	37	14
Salaried	30	15 (5 to 30)	73.3	22	12
TOTAL	101	20.7 (5 to 41)	42.8	52	19

(\*at interview from GP register degree qualification date)

† 84 interviews face to face and 17 telephone



**Table 2. Other general practice clinical interviews††**

	Total number	Years since qualified (**in role) mean (plus range)	Gender (% F)	Number of practices	No. of PCTs
Nurse Practitioner	11	9.4 (0.5 to 15)	100	9	7
Practice Nurse	31	11.12 (0.1 to 24)	96.9	18	12
HCA*	10	5.05 (2 to 8)	100	6	6
TOTAL	52	9.6 (0.1 to 24)	98.1	22	12

†† 43 interviews face to face and 9 telephone; \*healthcare assistants; \*\* self-reported at interview date

**Table 3. Practice management participants †**

	Total number	Years since qualified (*in role) (mean plus range)	Gender (% F)	No. of practices	No. of PCTs
Practice Management staff	18	8.2 (0.2 to 16)	78.9	18	10

†15 interviews face to face and 3 telephone

**Table 4. General Practice interviews conducted per study year**

	Year 1*	Year 2	Year 3
GP partners	9	30	32
GP salaried	6	7	17
Nurse Practitioners	0	4	7
Practice Nurses	5	8	18
HCA	0	0	10
Practice Management Staff	4	9	5
	24	58	89

\*(Calendar year commencing Jan 2007)

**Table 5. Patient participants†**

Total number	Mean age (plus range)	Gender (% F)	No. with QOF conditions
30	56.5 (20 to 77)	66.7	21

†All face to face interviews.

**Table 6. PCT participants†**

Total number	Gender (% F)	No. of PCTs
38	63.2	12

†28 interviews face to face and 10 telephone

A small number of PCPs and PCT staff were interviewed twice (see Appendix 6).

## **5.2 Does paying PCPs to do something mean that they do (more of) it?**

Whilst paying PCPs has definitely increased data collection, according to our respondents, there has been some debate about whether high levels of performance reflected improvements in care or merely better recording of data. Comparing improvements over time is hampered due to high levels of attainment in the first year of the contract (ceiling effects) and the lack of pre-QOF baseline data. As we discussed in section 4, however, we have managed to overcome these difficulties to some extent.

The next section presents results from our quantitative analyses which shed light on this question.

### **5.2.1 Quantitative analysis: Interrupted time series (ITS) analysis comparing pre and post QOF performance for three conditions.**

We computed an overall clinical quality score for each patient in 1998, 2003, 2005, and 2007 for clinical care and patient perceptions of access, continuity and interpersonal aspects of care (see Table 7; further details are included in Appendix 5). The findings are as follows:

**Coronary Heart Disease:** The quality of care for coronary heart disease had been improving before QOF was introduced. The rate of increase was equivalent to an average of 3.5% per annum from 1998 through 2003 (95% confidence interval [CI], 2.8 to 4.2;  $P < 0.001$ ). In 2005, after the introduction of QOF, scores on quality rose slightly, but not significantly higher than expected, as compared with the trend before the introduction of QOF ( $P = 0.06$ ). Subsequently, the rate of improvement dropped below the improvement rates for both the pre-introduction period ( $P = 0.02$ ) and the introduction period ( $P = 0.001$ ), and the overall quality score in 2007 (84.8; 95% CI, 82.2 to 87.4) was similar to that in 2005 (85.0; 95% CI, 83.0 to 87.1).

**Asthma:** The quality of care for asthma was improving during the pre-introduction period, at an average rate of 2.0% per annum (95% CI, 0.9 to 3.1;  $P < 0.001$ ), and there was a significant change in the level of quality over and above this trend in 2005 ( $P < 0.001$ ). However, this accelerated rate of increase was not maintained after 2005. The trend after 2005 did not differ significantly from the trend before the introduction of QOF ( $P = 0.16$ ). In absolute terms, overall quality hardly changed between 2005 (84.3; 95% CI, 80.6 to 88.1) and 2007 (85.0; 95% CI, 82.2 to 87.8).

**Diabetes:** The quality of care for patients with diabetes was improving in the pre-introduction period, at an average rate of 1.8% per annum (95% CI, 1.1 to 2.4;  $P < 0.001$ ). Diabetes care, like asthma care, showed a significant change in the level of improvement after the introduction of QOF that was well above the pre-existing trend ( $P < 0.001$ ). As with asthma care, this accelerated rate of improvement was not maintained after 2005 ( $P < 0.001$ ); instead, the rate fell back to the pre-introduction level ( $P = 0.91$ ).

**Table 7. Mean Clinical-Quality Scores for 42 Practices in 1998, 2003, 2005, and 2007.\***

	1998	2003	2005	2007
Coronary heart disease†	58.6±1.4	76.2±1.6	85.0±1.0	84.8±1.3
Asthma	60.2±2.5	70.3±2.5	84.3±1.8	85.0±1.4
Diabetes	61.6±1.8	70.4±1.5	81.4±0.8	83.7±0.7

\*Plus-minus values are means +/- SE.

† Based on 40 practices.

**Effect of Incentives on Quality Scores :** Mean quality scores for aspects of care that were linked to incentives were higher than those for care that was not linked to incentives, and this pattern applied to all conditions at all four time points. Allowing for these overall differences, there were further differences over time in the scores for

aspects of care that were linked to incentives as compared with those that were not.

For heart disease, the scores for aspects of care that were linked to incentives showed a bigger immediate increase when QOF was introduced ( $P = 0.05$ ), although this trend was not significant as calculated in the linear model ( $P = 0.46$ ). The long-term trends (scores in the post-introduction period vs. scores in the pre-introduction period) did not differ significantly ( $P = 0.06$ ). However, the difference was significant when calculated with the use of the bootstrapping method ( $P = 0.05$ ) or the linear model ( $P = 0.03$ ), and in absolute terms, the mean quality score for aspects of care for heart disease that were not linked to incentives declined after 2005, whereas the quality score for care that was linked to incentives increased. For asthma, the immediate effect of QOF did not differ between care that was and care that was not linked with incentives ( $P = 1.00$ ), but the trends subsequently diverged (post-introduction period vs. pre-introduction period,  $P = 0.006$ ; post-introduction period vs. introduction period,  $P = 0.05$ ), with the mean score for care that was not linked to incentives declining after 2005, and the mean score for care that was linked to incentives increasing. Trends in diabetes care did not differ at any time according to whether the care was linked to incentives.

**Interpretation of results:** For all aspects of care (whether associated with incentives or not) and for all three conditions, rates of quality improvement slowed considerably after 2005. In relation to the question of whether paying PCPs means they do something, one interpretation is that the structure of QOF did not reward further improvement once targets had been attained. This explanation is supported by the fact that practices in our study gained, on average, 96.9% of available clinical-quality payment points in 2005 and 97.8% in 2007 (which were similar to the average gains of 97.1% and 97.5%, respectively, for all practices in England) so there was little financial incentive for further improvement. Linked to this, it may be that GPs had sufficient income and little personal motivation to improve performance and income further (the target income hypothesis); this explanation would be consistent with the 30 to 40% gains in GPs' net income from the 2002–2003 period to the 2005–2006 period.

Another possible explanation is that near-maximal scores had been achieved. However, whereas achievement was high for some indicators (e.g., smoking status recorded for more than 98% of patients for all conditions), the logit transformation we used theoretically eliminates ceiling effects, and we observed the same plateau effect for indicators reflecting lower levels of achievement. Although it could be that once initial gains had been made, subsequent gains were more difficult to achieve.

## Limitations

It should be mentioned that practices were observed at only two time points before the introduction of QOF, we cannot say whether the rate of improvement was already accelerating as a result of earlier but still ongoing initiatives. Furthermore, the statistical power of our study was such that only moderate-to-large differences in trend were detectable between indicators that were and those that were not associated with incentives.

We used a random sample of patients for the questionnaire component of the study and there is a risk that these patients may not be representative of the patient population. Response rates for the patient questionnaire were poor (38 to 47%), although there is no reason to suspect any differences in bias at the four study time points. Finally, we focused on three diseases for which substantial efforts had been made to improve the quality of care before the introduction of QOF. QOF might have a greater effect on conditions with lower profiles, including some introduced as the scheme developed (e.g. learning disabilities).

### **5.2.2 Comparison of achievements before and after changes to thresholds in 2006**

Our analysis of responses to changing minimum payment thresholds also enabled us to answer the question of the impact of paying PCPs to do something. Minimum thresholds have only been changed once, in 2006, and only for 13 indicators. Trends in mean achievement rates were not influenced to any great extent by these changes. However, in 2005/6 most practices had achievement rates above the revised thresholds for most of the 13 indicators already. Amongst those practices with achievement rates in 2005/6 between the original and revised maximum threshold i.e. that received the maximum remuneration in 2005/6 but would not do so in 2006/7 without increasing their achievement rates, the only indicator with a large number of practices in this category was CHD 10 (patients with coronary heart disease receiving beta blockers), for which the maximum threshold was increased from 50% to 60% in 2006.

In 2005/6, 1680 practices (20.6%) had achievement rates of between 50% and 60%, and the mean achievement rate for these practices was 55.4% in 2004/5, 55.7% in 2005/6 and 66.8% in 2006/7. Mean achievement for these practices therefore increased by 0.3% in the year before the threshold was increased, and by 11.1% the year after. This substantial increase in achievement in the third year of the contract runs counter to the general trend for a declining rate of improvement over time and suggests that these practices responded to the increase in the maximum threshold.

There were consequences for exception reporting associated with these changes. The 1680 practices with achievement rates of

between 50% and 60% in 2005/6 had a mean exception reporting rate of 15.7% in that year. In 2006/7, when the maximum threshold was increased to 60%, the mean exception reporting rate for these practices increased to 25.9%. Similarly, the generally low exception reporting rates we observed for most practices across most indicators, and the shallow socio-economic gradient in exception reporting (see section 5.10), may be partly attributable to historically low maximum thresholds.

One implication of this is that the generally low exception reporting rates observed for most practices across most indicators, and the shallow socio-economic gradient in exception reporting, may be partly attributable to historically low maximum thresholds. More challenging maximum thresholds may lead to the development of steeper socio-economic gradients in exception reporting.

### 5.2.3 Qualitative analysis

A commonly expressed view was that QOF was a reward for activities that were already being conducted. However, even where practices reported that they were already providing care in line with QOF targets, it was acknowledged that data collection had increased.

*"to some extent it [QOF] didn't overly concern us in this practice, because a lot of it was for things that we had been doing already. ... the majority of GPs who were reasonably clued-in would be watching a lot of these things anyway. As well as the fact that now we would be paid for what we'd been doing for years without pay was seen as a good thing" 209 (GP Partner, Yr2)*

*"We looked at the performance indicators on QOF, and we thought, "This is a license to print money for us!" Because we were already doing... we didn't have to change. We had to change very little of what we did. In terms of medical management, we changed nothing. In terms of some other bits of activity, like timing of diabetic eye screening, for example, we now tie to common recall systems and telephone patients more, but in terms of basic quality of care, it didn't change what we did at all." 247 (GP Partner, Yr2)*

*"We were doing the work, but we weren't recording it. We still have to tick all the boxes and enter all the data into the templates to get the performance related pay at the end of the day. So it was still a lot of hard work, a lot of computer entering data, rather than doing the work. Most of the work was being done in any case." 270 (GP Partner, Yr2)*

Some respondents expressed confusion and/or lack of knowledge about newer targets (e.g. chronic Kidney Disease (CKD) and depression screening) which were additional to existing routines and ways of working.

*"I've been to two lectures now on CKD and it's still sort of going above my head really 103" (GP Partner, Yr1)*

*"actually using the [screening] questions I find almost impossible. Partly because I can't remember the phrase. I never get it quite right." 309 (GP Partner, Yr1)*

Over time, however, some GPs were starting to change their attitudes to some of these targets due to their experiences of patients' reactions<sup>iv</sup>.

*"Patients are quite keen. I've had quite a few who were quite keen to take them away, and they actually check them and use them as a monitor of themselves....patients sometimes find they're useful. And that was quite novel to me" 235 (GP partner, Yr 2)*

*"you get some people ... they're quite methodical and they ... like that, to know that they score 15, and they might score better in the future." 346 (GP salaried, Yr3)*

Whilst it might seem an obvious point, GPs also reported taking into account the extent to which targets were achievable.

*"you set me something that I can go for....it's got to be achievable.... they go on about all this SMART stuff don't they ... this specific, measurable, achievable, realistic and timely... set me a goal that doesn't fit any of that and I am not going to bother doing it really." 43 (GP Partner, Yr1)*

Most of the QOF targets were supported by respondents and generally, although they were described as increasing pressure, a large number of respondents viewed QOF in a relatively positive light, in terms of the content of targets. Some GPs in our study were

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<sup>iv</sup> For further evidence of patient support for depression severity questionnaires see Dowrick et al. Patients' and doctors' views on depression severity questionnaires incentivised in UK quality and outcomes framework: qualitative study. BMJ 2009; 338: b663.

critical of the square root adjustment to practice prevalence figures. Practices which gained from its removal welcomed this development. However, the impact on motivation was not solely related to money, but also to perceptions of fairness.

*"We're giving ourselves more work, more targets, but we are giving ourselves more money, because of the square root thing with the QOF. I haven't really worked out how much that brings in, to be quite honest. I don't know what drives us to do it. I really don't. We just do it. Two of my colleagues are quite obsessive and so they really like to dig out and hunt for diseases and high blood pressure, et cetera, et cetera, and with an elderly population you're bound to have a high prevalence, in any case." 333 (GP Partner, Yr3)*

*"the only thing that I'm very critical of was the square root formula for adjusting prevalence, which is just nonsense" 231 (GP partner, Yr2)*

*"Of course, the way the QOF was originally designed, for the square root formula, we had a very high rate of morbidity in most of the areas, but we were being paid a quarter of what we should do. So that was totally unfair, and it's been recognised now and it's being changed next year" 270 (GP Partner, Yr2)*

In many cases, GPs described going beyond QOF targets, to apply stricter measures where appropriate. This and the comments about QOF reflecting existing provision above, would suggest that QOF is aligned with what many clinicians are motivated to do, even in the absence of monetary rewards.

*"we see QOF as the minimum, right, what we aim to achieve. So the BTS [British Thoracic Society] criteria .... we tend to aspire to those more. So we see QOF as a bottom line...So those targets...are much tighter than QOF." 100 (GP partner Yr 1)*

*"Probably the QOF would tend to be more relaxed .... For example, the blood pressures with the CKD patients, the target for HbA1C. We aim for a much tighter control than what the QOF says." 345 (Practice Nurse Yr 3)*

Some clinicians reported, however, that their initial enthusiasm was moderated in the light of their experience of QOF over time as this quote from a second round interview with the GP quoted above illustrates.



*"it's leading to a bit of a target driven medicine. We've had at least three cases of quite significant postural hypotension, one of which required admission. And we've had a number of falls that could have been quite nasty. Who actually had perfectly controlled blood pressure by QOF standards, but actually for reasons we don't quite know about suddenly developed some postural hypotension because he suddenly got a bit older or his diabetes kicked in.....I'm not going to pursue higher targets, because these people are quite frail and although one understands the importance of lowering blood pressure, if you then go on to have a fall and get a nasty head injury or break your hip then that is not in the best interests of the patients."*  
100R2<sup>v</sup> (GP partner Yr 2)

Many GPs suggested that although QOF had made little difference to the provision of care in their practice, paying GPs had led to improvements in other, by implication, deficient practices.

*"I'm not sure that a practice like this it has made a great deal of difference, because we were always very proactive. We had chronic disease clinics for many, many years. So we feel we were already doing most of what was set out in the contract. .... a lot of good practices would say the same. So that I suppose it actually brings everybody into line and makes sure that the less-achieving practices do more. So, from that point of view it's probably been good. But we're having to spend more time auditing, ticking boxes, saying "you're doing this, you're doing that, you're doing the other." We were doing it all already, but now you have to prove that you are doing it all, basically, which is time-consuming. And take time out from what you could be doing really, which is looking after your patients." 132 (GP Partner, Yr2)*

*"the reason why most GPs do it is because it generates income for the practice.... I'm not sure that we needed to do much to improve the care anyway because we already had some very good systems in operation. Now I'm not saying that it hasn't improved care, but what it's done is bring a lot of poor practices up to a reasonable standard. And on that level, maybe it's been a good thing." 112 (salaried GP PCTMS, Yr2)*

However, others also described QOF as providing incentives which changed behaviour in practices more generally.

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<sup>v</sup> R2 indicates a second round interview with the same individual.

*"most of them are quite evidence based and beneficial. So the targets, blood pressure targets and HbA1C for diabetes and things. So that's probably a good example, and that, I mean in this practice we, for whatever reason, weren't really managing diabetes very well. And the fact that we're not reaching some of those targets has been a bit of an impetus to change things and start getting nurses doing more chronic disease management, which is good and needed to happen." 104 (Salaried GP Yr 1)*

*"It's also stimulated ..... in mental health and learning disability and also dementia, there's the review... that's made us very much more aware that reviewing these kind of patients is a lot more than what perhaps has been done in the past.... it just makes you think a bit more outside the box. Someone with dementia, probably in the past you'd say, "Listen, right, so you're seeing the consultant, fine. Good. See you later." Or someone with mental health issues, "Right, OK, you're seeing the consultant so I can't treat you. Good. See you later. You want to change your medication? Right. Well, here's a prescription." But now it's saying, "Hang on a second, have you done their blood pressure? Have you checked that they smoke or not?" Are you neglecting the fact that they actually need as much health care as the 45-year-old that comes in with a bit of chest pain?" 133 (GP partner, Yr1)*

*"if you get the incentives right, and you tap the right feelings in individuals, things will change quite readily, and quite quickly. ... that what QOF did was put a whole lot of funding behind some stuff that GPs wanted to do, anyway." 231 (GP Partner, Yr2)*

*"that's where the financial incentive comes in.... they think, well, even if there's nothing else makes them do it, the thought of the money does help a bit." 295 (GP Partner, Yr3)*

*"The whole of your analysis, the whole of what you were looking at had to be different. Your GPs had to be involved because it was clinical stuff. Believe me, because there's money attached, they got involved. Well the first year was hilarious because at this time of the year they really ran like headless chickens. Very different now, very different this year. Not doing that, just making sure that things are done where they can possibly be done, and we're nearly at full clinical points." 139 (Practice Manager, Yr 2)*

*"We have QOF on our weekly business meetings. There's always an arena to bring up problems and discuss them face to face with all the GP partners around the table, who are my employers. So that feels a comfortable place to be able to say, "Look, we're not doing very well here, you need to do x, y, and zed. They are comfortable with that, because it does come back down to money." 293 (Practice Manager, Yr 3)*

*"I suppose probably the feeling in the practice was of an opportunity to make some extra money. And to make it sort of relatively easily because the targets weren't very difficult. There were people who were saying this isn't going to last for long and it's going to be a sort of cake now and not tomorrow situation. Tempered with that, there's a lot of research to show that if you sort of structure and plan your care instead of being ad hoc and opportunistic you tend to provide better care. So I would have thought it's improved our chronic disease management considerably. So for example one's rewarded quite well for controlling blood pressure. Assuming you're being honest about recording that blood pressure, which I'd like to assume, then our blood pressure control has improved in the last five years. Same for our diabetics. We seem to be somehow controlling them better. Because we're chucking my resources at that issue." 347 (GP Partner, Yr3)*

We found many examples of GPs and nurses undertaking activities which they viewed as of dubious value, or worse, because of the financial incentives for doing so.

*"the partner I've been talking about said, "We must record these ethnicities. We must do it. I know it's only 5p a patient, but we must get as many as possible." And my reaction is that I'll inquire about someone's ethnicity if we're sitting there looking at each other with nothing else to do. I don't really feel it's appropriate, and you can be off-putting to people.... the problem, from our point of view...our senior partner is on all the committees so he's signs us up for everything. We find out afterwards." 339 (GP Partner, Yr3)*

*"This is the only way that you can get this money, is by ticking all these boxes." 368 (salaried GP, Yr3)*

*"I have to do these things because Gordon Brown wants to know whether you smoke or not.....It's a complete and utter waste of our time. Have a register of the people who smoke and make sure that we do what we can to stop those people from*

*smoking. If they don't smoke anymore, good. It's very unusual for somebody not to have smoked for 10, 15, 20 years to suddenly start."* 296 (GP Partner, Yr3)

*"Well, it's difficult. And everybody over a certain age has got CKD.....so that one probably has been a little bit more difficult. Sometimes you feel like you're chasing people for the sake of chasing people, when they don't need it."* 149 (Practice manager, Yr 2)

*"phone up and ring round like a double-glazing salesman... I have to cold call these people and ask them these two specific questions....it's a tricky thing to do over phone, isn't it?.. what I am bringing in coronary heart disease patients for annual checkups, and some of them are so crumbly and so old? And, sometimes it's not that kind really, especially when they have to get a taxi in. are we actually doing them any great service when they've got to 92?"* 321 (Practice Nurse, Yr 3)

*"Half of them, that's why need a spirometry, because they've got a breathing problem. ... every 12 or 15 months. It's tough. In their 90s it's cruel, just to tick a box. What are we going to make any different? .... to prove they're deteriorating. They will deteriorate. Will it change the drugs? No, their symptoms would be enough to change the drugs, the inhalers that they're on. You don't need to keep doing a spirometry, quite honestly. That's my interpretation. ...Especially when they're elderly and frail. So certain things aren't very kind. Especially spirometry. It's a hard test. It's hard for me to do. And I'm not 86, or whatever, 92, thank God."* 300 (Practice Nurse, Yr 3)

At times this was justified on the basis that it provided money to deliver care which was valued but was not rewarded in QOF. In a small minority of cases though GPs reported refusing to chase QOF targets due to misgivings about their clinical content.

*"The idea is to get the money so that we can then invest it in the other projects. So we've got to get into the 90% of QOF. We've got to get it up nearly to the top. I don't think it matters if it's 98% or 99%, but we've got to get it up near the top, and then we can get away with the few that we're not doing on moral grounds."* 227 (GP, Social enterprise Yr 2)

*"if I were a partner I would persuade my partners as a practice to have a policy that we wouldn't use them because they are*

*positively detrimental. .. they can actually interfere with the way you manage patients with depression....Being salaried, I have to make my case and periodically say, "Well I'm not just doing it."...And at the end of the year luckily the amount of money attached to the screening questionnaires is not very big. .... If there's a huge amount of money attached to it. It would be really difficult. I still wouldn't do it.... The depression screening is a good case in point because I just will not do it... there's no evidence for it. .. They've never been validated for their use in routine clinical practice." 272 (Salaried GP, Yr 2)*

*"when QOF first came out we had some issues with the COPD targets and the spirometry, and we felt the evidence base was poor so we didn't do it. And there were a couple of other things that we felt either the evidence base was poor for or, in the organisational indicators, we felt that's not what we want to do in our practice. And so we just made a joint decision that we wouldn't chase that bit of money. And that's fine. If you work in a small practice, and you can make the decision to perhaps have 300 pounds less a year because of that decision, then that's OK." 232 (GP Partner, Yr2)*

One particular aspect of the contract which created huge resentment was the introduction of a DES for extended hours (as outlined in Section 2). This required practices to undertake additional work and often incur additional expenditure, without additional compensation (see Appendix 7 for further details). The dissatisfaction expressed by GPs in response to the DES might be interpreted as the other side of the coin in terms of the question of whether paying GPs results in behaviour change. The absence of payment has a negative impact on motivation. However, in part, the resentment was created by the approach adopted by the government, which was perceived as an imposed settlement and not in keeping with the spirit of a negotiated agreement, which underpins the GP contract. Respondents also objected to the development on the grounds that there was very little need to increase opening hours as they reported patient access as adequate under existing arrangements.

*"most practices have a hardcore 5-10% who are in every week or every fortnight with either chronic illness or fairly minor illness. And it was pretty much the same population filling up the Saturday mornings. It wasn't the guys commuting out to [city] and coming back for the weekend. It wasn't the target population coming through, so the decision was made that it wasn't worth it..... We were prepared to take that small financial hit, because we would still lose money even if we did take it on and get the money, it would cost us more to implement it." 399 (GP Partner, Yr3)*

*"it was acrimonious because of how the government behaved, and it's why the government are not going to get in again. They've managed to alienate everyone. ...So the way they announced it and the way they negotiated with the BMA, I'm sure the BMA are an absolutely nightmare group to negotiate with. So they do have a bit of my sympathy. [laughs] I remember it being announced, the plans for extended hours....the way the government have dealt with it and the way the PCT have dealt with it in terms of the funding which was straightened out. It was on Christmas Eve or something they announced it." 309R2 (GP Partner, Yr 2)*

*"I'm generally a very, very, very, very positive and enthusiastic person. ...If you ask me whether I would recommend medicine to anybody, I would talk to them about the pros and cons. Whereas 12 months ago [before the extended hours experience] I would have been saying it was the best thing ever." 103R2 (GP Partner, Yr 2)*

However, in many practices despite the acrimony created, adaptations to working arrangements had been made to provide these services. Rather than revolting and resisting, these hours were being accommodated and becoming taken for granted.

*"One of the things.....the practice as a whole found stressful, was the extended hours. ... they took away income and gave you the opportunity to do more work to earn it back. That really struck hard...because it felt such an injustice. But we did what we always do. Huff and puff, kick the cat, howl at the moon, roll up our sleeves and go with it. Find the best way of doing it... so we did it." 292 (Practice Manager, Yr3)*

In part this may be interpreted as 'doing things for money'. Furthermore, this issue concerned a threat to existing income, which we would expect to provoke stronger feelings compared with an opportunity to earn additional money. As the following quote illustrates, however, where these arrangements appeared to be meeting a need, GPs were more likely to view them favourably.

*"it's not too bad if you think of it, and because it's one in five, you do it every weekend. And only morning surgeries, pre-booked appointments, so it's kind of good for people who are working....it's working well so far, so good, we have pre-booked clinics, and getting fully booked. Initially to start with, it wasn't the case, but at the moment we are fully booked and patients, they have the choice ...if they are working or commuting from*

*[city], then they can be seen on Saturday." 322 (GP Partner, Yr3)*

*"We do the patient survey every year, and some of them do talk about evenings. There are a few patients who work who say it's difficult to get in the evening. And the last appointment before extended hours started was at 6:00, which for some people was just too soon for them. They didn't finish work in time." 400 (salaried GP, Yr3)*

Many respondents suggested that money was not the prime motivating factor pointing to targets as bringing out the competitive streak in practices and/or individuals.

*"If I am given a goal I like to achieve it. And it is difficult to convince people on this but I did that because of the points. The money was a complete ... I wouldn't say irrelevance, but I wasn't doing it thinking, oh, it's another 75 pounds for that point. It was I'm going to get 1,050 points. I want to get the points. I like that sort of benchmarking and the tick. We can prove that we've done all this. That was good." 296 (GP Partner, Yr3)*

*"GPs are pretty competitive people and they don't like to see themselves at one end, or the other end, of the charts." 256 (GP partner and PEC Chair, Yr2)*

However, there were concerns expressed that being paid for doing things left practices vulnerable. Anxieties were created by the uncertainty over future income streams.

*"because the way that the enhanced services have worked it has introduced an element of 'will we have that contract in, two, three years time or will we lose that?' So you're recruiting staff and you're developing services but you actually don't know whether that's going to be supported long term really. So that makes us feel quite unsettled and a bit vulnerable really." 98 (GP Partner, Yr1)*

A small number of clinicians expressed concerns about the approach encouraged by QOF of 'chasing' patients and others were worried about the threat to the patient's agenda from the large number of QOF targets. Yet these worries did not stop the pursuit of QOF points.

*"It's a partnership. That's the way I view it. At the moment, it's more the doctor chasing them, which is wrong." 144 (GP Partner, Yr 2)*

*"My training was all about eliciting the patient's agenda and pursuing and following that, and enabling them to clarify what it was that they had come about. We still do that, but there are increasing elements of us having our own agenda, which may actually be quite distant to and different from what the patient has at the top of their list." 249 (GP Partner, Yr2)*

*"I don't see any heart-sink patients anymore..... so they didn't have a chance to be heart-sink because we QOF them and they're out of the room. One of the things that happens is the patient comes in, the boxes pop up, and you get straight into doing all that stuff... and they're out of the room.... And I just think there is just more chance to miss [something significant], and that's such an important bit, isn't it? Its been added in without any extra time for listening to the patient, I just think something that's probably gone from general practice that could be a cost." 111 (salaried GP, Yr1)*

Computerised systems which prompt clinicians to take action also helped to ensure that GPs were aware of targets. The absence of such systems in many practices in the California setting led to very different consequences.

*"the way that the pop ups [computer prompts] work... I find them quite useful in terms of as a prompt." 98 (GP Partner, Yr1)*

*"Doctors have no idea [what the targets are], but they would guess some of the things probably right .... If you are a sophisticated person, you might be able to find it on the Internet" USA GP8.*

Californian doctors affiliated with the largest physician organisation (comprising 3,000 physicians and health care clinicians) in our sample, which offered rewards comparable to those of the English programme, however, were much more likely to be aware of targets.

*"What I think, probably, having the measures has done for us is made our outreach a little bit more aggressive, so that we track and are able to look and see, "OK, you haven't gotten your mammogram. We're going to send you a letter, rather than just remind you next time you happen to wander into the office" USA GP 13.*



All the Californian physicians reported receiving feedback on performance from their physician organisation (IPA or medical group), and some received requests to take action (eg, being provided with names of patients overdue for a Papanicolaou smear). As the quote above illustrates, where doctors chose to act on this information, their response was normally to ask office staff to contact and remind these patients, so the pay-for-performance targets prompted doctors to take action.

#### **5.2.4 Summary of qualitative and quantitative analyses.**

Our data suggest that between 1998 and 2007, there were significant improvements in measurable aspects of clinical performance with respect to the care provided for three major chronic diseases. The initial acceleration in the underlying rate of quality improvement after the introduction of QOF was not sustained. However, achievement for many indicators was already at well over 90% at this time. Our interviews covered a wider range of conditions and activities incentivised as part of QOF than the 3 which were the focus of our ITS. GPs, nurses and practice managers reported changes in behaviour following the introduction of QOF, so this suggests that in areas outside of the 3 examined in our ITS, there have been changes in behaviour, although many admitted to undertaking activities which they did not see as valuable due to the financial incentives contained in QOF. In response to the question 'does paying people to do something mean they do it?' the answer appears to be yes, in many, but not all, cases. In California, where results are much less impressive, a number of factors including the lack of computerised systems and the extraction of data from third party systems reduce the potential impact of financial incentives<sup>109</sup>. However, whilst money is a motivating factor in English general practice, other factors are important in motivating practice staff to engage with QOF. Furthermore, a reliance on payment linked to targets and provision of additional services, as opposed to capitation payments, created anxieties about the future, which may serve to reduce the positive motivational aspects of the financial incentives.

### **5.3 What is the effect of employment status on performance and motivation? How does the distribution of rewards impact on performance and motivation? Qualitative analysis**

To explore these questions, we drew on our interview data. In general medical practice, different views were expressed about the relationship between employment status and performance.

*"our salaried GP is actually very, very good. As far as I'm aware, I've not heard any... I personally don't have any issues about her not pulling her weight or not doing stuff. She does all the QOF stuff that appears. ...We have always said, from the beginning, that if she does extra work she'll get extra pay. It's as simple as that. And she's very happy with that and if she doesn't want to do something then that's fine, it's up to her whether she wants to or not." 275 (GP Partner, Yr2)*

*"salaried GPs... It's almost a bit of a second-rate service. Not the individuals aren't, but the fact is that that's being encouraged because employing general practitioners is the way the government wants to go. So that way of doing things has been actively encouraged. People want to take that on because they see that self-employed GP's role can expand exponentially and that's the concern, isn't it? Because you can't then be a partner and come in at 8:00 and go home at 6:30. You've got all the other stuff going on as well." 149 (Practice Manager, Yr2)*

*"I did an audit for our new salaried doctor, just looking, a private audit for the other partners, on whether she was acting on pop-up boxes that we get on the system, and she wasn't, she's not doing it, she's not looking at even just simple things like blood pressure needing updating, smoking status needing updating." 224 (Practice Manager, Yr2)*

*"If I was salaried, particularly by a PCT, say, and I woke up feeling crap in the morning, I'll stay in bed I'm an employee. Now I'm not an employee. And if I'm feeling crap worse than half the patients I see, I'm still here. I haven't taken time off in 20 years, because you made that endeavour there.....And if I was a salaried, which where they want it to go, fine, I'll behave like a salaried person. I won't give a shit. If I don't feel well, I won't come in. And you lack that commitment." 208 (GP partner, Yr2)*

*"maybe it helps to give a financial incentive to salaried GPs to actually get them to get off their arses and do stuff" 366 (GP partner, Yr3)*

Salaried GPs and practice nurses do not normally share in practice profits, but many received bonuses in the early stages of the contract, at least.

Changes to QOF, which combined modest or zero inflation uplifts with raised target thresholds were reported as creating financial problems for practices, with regard to the ability to pay bonuses for high levels of QOF achievement.

*"Another decrease next year. Yeah. So the mood's finally different in sort of going, "We better share this with everybody," whatever. And there was talk of bonuses and all sorts of things. We've had to sort of rewrite that script really and say, "Right, QOF is just simply general practice income." So it isn't any sort of windfall." 139 (Practice Manager, Yr 2)*

*"I keep saying to people, it's not a charity. We're not Mother Theresa. We're paying a going rate for the job. So if you don't like it, and want to be a partner, go be a partner. There's no partnerships around anyway." 227 (GP partner, Yr2)*

*"they still get their increments every year, they still get the cost of living plus a salary step-up if it's approved. At the end of the day, the QOF money goes a long way toward paying the wages. .... If we didn't achieve what we achieve in QOF, then we'd all suffer for it." 224 (Practice Manager, Yr2)*

Some salaried GPs and nurses accepted a state of affairs in which they received less remuneration than partners, but others were less happy with this arrangement. Concerns were expressed by some salaried GPs and nurses about the distribution of additional income from QOF and its relationship to effort. However, this depended in part on the practice context, so that perceptions of fairness more generally (how the staff felt they were treated, team relationships, formality of practice hierarchy, perception of degree of autonomy and so on) appeared to play an important part in shaping staff attitudes. Some practice nurses were aware of a big disparity in wages and bonuses by talking to other colleagues working in the local community of practices, which created resentment, although comparisons with other practices also made nurses feel well treated in some cases.

*"Do we get a bonus? No. They all just get new cars. Delete that bit. [laughter]...And then in July.... I'd left work. I still had my uniform on, actually. And I'd gone straight to the hospital, and I'd been sitting up all night. And my Mum rang in the morning and said that I wouldn't be in because, blah de blah. And then, obviously, I came back to work the next day, and got quite a lot of grief about it. Which wasn't very nice to be shouted at, and told that I'd had so much time off. ....I said, I've had one day off. .... I left work at six o'clock, went straight to the hospital,*

*and came home at nine o'clock. So I didn't take time off work other than this one day. And it stuck with me all year and it ate away at me" 330 (Healthcare Assistant, Yr3)*

*"I got £100 for Christmas for getting a 100% QOF points for coronary heart disease and diabetes which is about 80% of the QOF.... it's sort of bit of a cursory sort of thank you.... When you think how much they get." 321 (Practice Nurse Yr 3)*

*"That's a bit of a sore point. We didn't get bonuses.....I keep thinking maybe they'll give us a bonus, and we get a Christmas bonus. And then actually with time, we are able to take some time off and be flexible and come in on other days to cover. So it is a nice environment to work, and sometimes that is more important to me than money." 206 (Practice Nurse, Yr2)*

*"I've never been motivated by money or status. And the nice thing is, in this surgery, that's not an issue. My salary's always been good, and always been a fair offer, and my role has always been very fair." 364 (salaried GP, Yr3)*

*"In some practices, you could actually be used and abused. And used like a cheap doctor. ...in this practice, that doesn't happen. And I knew that before I actually came to work here, I knew what kind of values they had here." 246 (Nurse practitioner, Yr2)*

*"So I suppose if I worked myself up, I could feel a bit embittered about it but I try not to. There is no point to it. I'm happy in the practice that I'm at. So I don't want to make waves and have to find a new job." 221 (salaried GP, Yr2)*

*"absolutely two-tiered.....I will get paid less than the people who do the same, the guy next door who is the partner and will have more responsibility because of the way they run it and it is a norm is that we have a pecking order of which clinics get filled first, so salaried will get filled before the non-salaried, and sort of extra home-visits you're doing ....salaried will get the extra home-visits" 102 (salaried GP, Yr2)*

*"And I get half the pay. Literally half the pay. So yeah, that starts getting a little bit frustrating. I mean, obviously I don't*

*have the extra admin side to it, but I don't know how it's worth half pay." 126 (salaried GP, Yr2)*

*"There's nothing really I would call unfair - apart, of course, from the salary. [laughs] Getting a salary that is doing the same things and some people are getting two or three times you salary. .... that's always been an issue." 130 (salaried GP, Yr2)*

*"some salaried GPs... in their contract it says that they only see 14 patients per surgery, they will only do a maximum of two visits, they won't do any insurance reports; and I don't have any of that. ... it was a little bit of a shock when I first came to this surgery, because it was so different, and it has been hard work because I perhaps didn't make too much of a fuss about it, they assumed I was fine and let me get on with things" 315 (salaried GP, Yr3)*

*"I felt I was working as hard or harder than them. I didn't seem to be having the financial incentive, really, of being involved and the respect from them." 308 (salaried GP, Yr3)*

In the US sample, there was less evidence that salaried GPs were dissatisfied with their employment and remuneration circumstances. Where GPs were salaried, they were employed by large organisations rather than practices which belonged to partners. GPs opted into such arrangements as a matter of choice, often because the overall package, in terms of remuneration and responsibilities (in particular no responsibilities for managing the business) was viewed in a favourable light.

*"what happened when I joined the group is that they looked at what I'd been doing over the last five years and said, "If you keep on doing this, this is how much you'll make." And I said, "That's more than I paid myself, so I'll be happy to take it." So I basically continued to behave as I did before, and gotten paid more". USAGP1*

The fact that these GPs often worked on their own caseload, rather than as part of a wider practice group of GPs, may also explain why California GPs did not feel unfairly remunerated in comparison to other doctors working in the organisation. Furthermore, some of these GPs had previously been partners in their own practices, but in a context of low remuneration (relative to high premises and accommodation costs in California) moving to salaried status was viewed as a welcome alternative to bankruptcy.

*we were unsustainable in the long-term.....basically we were bought out for the debt.....What we received [for the sale of the practice] was that we were relieved. [laughs] That was it.*  
USAGP 5

Whilst media reports of English GPs enjoying high income increases and lower workloads were the source of irritation for GPs generally, amongst salaried GPs, such reports added to existing grievances about pay differentials between them and GP partners.

*"you do resent it a bit when all this stuff is coming out.....we earn a very good living as salaried GPs but we're obviously on a lot less. .... people are obviously thinking 'oh you must be on that.' ..... there's not really been many people standing up for the huge number of salaried GPs who are doing a lot of the clinical work. And that has been quite annoying really .... it does feel a bit that way sometimes....the press coverage." 101*  
(salaried GP, Yr1)

In a context where partnerships are in limited supply, some GPs feel they have no exit options, despite their frustrations. For others, working hard, despite feeling unfairly treated was seen as a requirement to be offered a partnership in one's existing practice.

*"I am probably like maybe slightly dissatisfied about the money you get, but then I am also looking for a partnership maybe in the years to come. So, I have to like, prove my mettle really, isn't it, in the years to come otherwise you are not going to make it" 312* (salaried GP, Yr3)

*"it's really out of order, but if I don't go along with it then .... I'm stuck in this position basically because there are no partnerships anywhere. ..I'm salaried, great, I have a list. So I do have responsibility at the moment for 1000 patients. ... that is actually really bloody cheeky because I'm actually doing the same as another partner. So they are getting paid three times what I get paid and I don't have the career progression, whereas they go for training days and do this, that and the other. We never get in-house appraisals; they are not interested in how we develop as a doctor." 125* (salaried GP, Yr2)

*"that whole GP recruitment thing is quite a minefield, certainly around whether partnerships are going to get offered in the future, and whether the future is a lot more salaried associates of some sort. ... it's starting to be like business. I don't think there's anything terribly wrong in that, but I don't think you*

*should assume that you should just have a partnership. That would be like joining a legal firm and expecting that you're going to be a partner. In most businesses, you earn your partnership by delivering." 231 (salaried GP, Yr2)*

A small number of salaried GPs we interviewed were part of PCTMS arrangements, which meant that they were employed by the PCT. These tended to be older, more experienced GPs in practices where all GPs were salaried and where no partners were available to cover additional workload such as extra patients or management issues. In these circumstances the GPs were fulfilling similar obligations to GP partners in other practices, except that issues such as recruitment were handled by the PCT. Rather than relieving them of a burden the latter factor was seen as a barrier to service delivery due to the requirement to follow what were seen as byzantine processes, leading to vacancies being unfilled for several months.

*"PCT practices for [city name] have become a provider arm, and I have to say..... as long as it's all anonymous, the personnel involved in that provider arm don't fill me with great confidence and enthusiasm" 111 (salaried GP PCTMS, Yr1)*

*"the trust management have just not a clue how to look after GPs. They've at best not done anything to help teamwork and one of the major strengths of this place has always been that we were a very strong team. Recently we've had doctors, two or three doctors leave, they've [PCT] refused us any input into the interview process at all... there's been a, if you like a fairly unifying philosophy around the place which has sort of been very supportive for us as colleagues, we were able to support each other. But now it's Identikit Doc, PCT Identikit Docs. They're now employing people that we would not have employed, but they're taking us out of the loop basically because they say, "Well you're just salaried doctors, we'll decide who's going to come work here". And there's been a whole series of issues with the trust being, at best, very unsupportive, and at worst, extremely antagonistic. .. an Identikit PCT practice, which is very sad. But that's the way it's going. ... We have no influence over that." 112 (salaried GP PCTMS, Yr1)*

When round two interviews were undertaken 12 months later, this GP had left the practice. The account given by the PCTMS manager at this PCT, who was working her notice period prior to leaving her post, resonated with these views.

*"I've been driven out through I believe lack of support. And it made me question their [PCT's] commitment to it. Am I going to*

*be at risk because they're not giving me any support? I need on the ground support to develop the practices, because the strategic side still needs to be done, and that interests me a lot, because I've worked with and within primary care for years. And even down to our budgets. I know I'm saying shafted, but we are being shafted...I'm still waiting for vacancy controls to be signed off...I know what impact that's having on the service, and on individuals. I'm working on goodwill with staff doing extra hours. And then nationally the targets would change, contractually things are changing. My job's changed, my colleagues who are going to commissioning and they've just gone. So I'm leaving, and I've nobody to hand over anything to. And I just feel quite demoralised with it all." 201 (PCTMS Manager, Yr1)*

Whilst establishing a private company, with GPs as salaried employees appeared to avoid the problems associated with labyrinthine PCT structures and regulations, it was recognised that not all GPs would want to work in this type of arrangement.

*"it's a private limited company.... that then has enabled us to be quite flexible in the way we manage our staff.... we don't have partners, we have an executive which manages our practices and supports all the things that clinicians do... we can quickly make changes to our services.... if we see an opportunity because there's a particular issue with our patients, we can mobilise very quickly... they might not like it and it's [chasing QOF points] boring, and I have to do it as well. We all have to do it, especially in March when you're trying to dig up anything, you can get everyone in, we all have to do it cos it's our job, it pays your wages.....we don't have arsey doctors... "Ooh, I'm not taking that off a nurse" or whatever cos those sort of people would never join us or, or have gone.... we don't call it QOF because people just think that's, "Oh, the practice get a load of money for doing this, and why should I do it?" we call it the quality and outcome framework for improved patient care and we keep we keep selling that all the time to the staff, this is for the benefit of the patient, that's why you're doing it, and they take that on board" 118 (Executive GP, Yr1)*

The need to 'keep selling' suggests that even where staff opt to work in this set up, ongoing efforts are required to maintain their motivation and commitment.



#### 5.4 What surveillance mechanisms are in place and how do these influence responses /attitudes to incentives? Qualitative analysis.

Whilst many staff in this setting reported the pursuit of contract targets as a continuation of existing practice, in all cases, changes had occurred following recent policies aimed at realigning incentives. Scrutiny came from a number of sources.

**PCT scrutiny:** Practices receive QOF monitoring visits from the PCT, although some PCT staff reported that it was difficult to engage in in-depth scrutiny, due to limited resource availability, this was not always the case.

*"we review all practices for the QOF on an annual basis anyway at the moment and so, because we've got such huge numbers of practices, in [names city] there's [over 100] practices, obviously you couldn't go out and visit [all] practices and do a QOF visit because you can only do a QOF visit between October and January, well 'flu' season, Christmas, you aren't going to do it. So we actually only physically visit 30 of the practices, or a third of the practices each year get a physical visit from us where we go and we actually look around the practice and look at their clinical systems and talk to the staff and do a sort of full visit. The rest of the practices have to still submit a folder of evidence which we look at and assess." 19 (PCT manager, Yr1)*

Although over time in many practices external scrutiny had become accepted as a fact of life, in some cases, experience over time had reduced acceptance of the process.

*"it was inevitable, really. At the end of the day, it's a hugely expensive process. And I suppose we should be getting better outcomes. The scrutiny is from the top down. The PCTs are incredibly scrutinised and SHAs are too. But it's just part of the culture." 240 (GP Partner, Yr2)*

*"you do feel quite managed and watched... everything's monitored, isn't it? ....you're always getting guidelines and things like that, that if you don't follow them, you can get in a lot of trouble for. So, a lot of it is. I don't feel like you do have a completely free reign, if you see what I mean." 216 (salaried GP, Yr2)*

*"There are factors that are outside your control, like compliance, the patient's compliance and the patient's concordance with medication. Also the fact that you have to - there's a QOF*

*Assessor coming in March. ....everybody has to do more in terms of trying to achieve their QOF points and to ask the relevant questions. So it does add a bit of pressure." 398 (salaried GP, Yr3)*

*"Things like having to do dementia screenings regularly and all that sort of thing. Without having to tick all of these boxes and to actually go down, "Yes, I've done that question. I've done that question. I've done that question, you could just put, "Yes: The score was seven," if we've got to put it in. But obviously, they don't believe we're doing it, so we have to do each one individually just to show that we have gone through the whole lot....but all of it is demeaning and my enthusiasm for what I originally set out to do is lessened by it." 304 (GP Partner, Yr3)*

*"having had a few honeymoon years of "things are going well," GPs are now getting increasingly frustrated with changes for change sake and the constant target culture that we're in." 341 (GP Partner, Yr3)*

The acceptance of scrutiny by most English clinicians was in stark contrast to California where doctors resented being scrutinised and regarded the views of colleagues (as opposed to external assessors) as legitimate assessments of quality and performance.

*"Physicians are monitored more than anybody. Are attorneys monitored? No. Are dentists monitored? No, not as far as I know. Are chiropractors monitored? No. So, it seems to be that physicians have either rolled over and given over their rights, and maybe they'll be pushed to a certain point where they will rise up and say, "No more." I don't know" USAGP20.*

*"I want to do a good job. I get compared to, but not in a formal way, to my colleagues. . . . I certainly see all the time whether that colleague agrees with my referral diagnosis and continues treatment as appropriate or says, 'Doctor [X] was way off base and we think you've got something else.' That's a very strong motivation for quality of practice" USAGP7.*

**Internal surveillance:** There were internal processes for monitoring compliance with QOF targets, with staff (medical and otherwise) monitoring clinicians' performance against targets, as well as computerised prompts aimed at influencing GP behaviour.

*"I just keep on looking into the population manager [computer programme which reports progress on QOF measures] things every now and then and send them rude emails. "Why don't you use...?" "You're supposed to do this before you do this." ... they're motivated obviously to provide the good care. Whether they're quite so personally conscious all the time of these little pop-up boxes going, "Please ask this, that or the other," I'm not sure whether they do that.... It's the simplest thing to say, "Do you smoke?" and give some brief advice about stopping. ... takes you 10 seconds. And they see somebody and they don't ask, even though it's there. So, no, I suppose the motivation isn't there." 302 (GP Partner, Yr3)*

*"I'll highlight it because I'm looking at it regularly. So I would go to them and say "Is there a problem here? Do you want me to help? is there an issue that needs reporting to somebody? Do you need some extra help with staffing or to write letters or something like that?" I usually do it individually..... We used to have QOF reviews. We don't bother anymore now, because everybody knows what they're doing." 141 (Practice Manager, Yr2)*

*"So, I would sort of keep an eye on key areas in population manager and flag it. We would discuss on a regular basis, and then we would feed back... We do have regular quarterly meetings on that, and then obviously we can just have that any time you have a meeting that is appropriate, and we would meet on that as a team once a week. Then, towards the end of the year, probably in the last three months, we would start circulating lists for individual GPs to go and have a look at and update theirs when necessary, and do some exception reporting, obviously, if necessary." 248 (Practice Manager, Yr2)*

*"It's a lot more computer driven," in that they must fill out the template.... we'll knock on their door and say, "You put this one down as having cancer, are you sure they've got cancer?" because if they have got cancer we have to do all these different things to them" 43 (GP Partner Yr 2)*

*"QOF monitoring... I check up on people all the time in terms of their clinical coding, I write guidelines for the clinical system, templates. I do the audits... It's all money. Or I'll send out emails saying, "Oh, you're not doing that right." Or I'll send round lists, saying, "These are patients whose records you have to check and if you find this, you've got to do that." So you can imagine how popular I am.... they don't like it much, but they either want me to maximise their income or they don't. The*

*GPs... It's a relationship you have to work on when you're telling your bosses what to do....And you're pointing out things that they've done wrong, and they have to be quite grown-up. Luckily these ones are. The nurses sometimes struggle with the feedback, but as long as you don't want to be everybody's best friend, it doesn't really matter." 292 (Practice Manager, Yr3)*

*"What I tend to do if I've got a QOF list there, we just send a PN - as you call them - to the partner who normally sees them. "Inhaler technique not documented. Can you recall?" Putting it subtly. Or, "Yes, I did check it, but I forgot to document it." ... If one doctor gets 15, it just prods them to think, "I didn't do that very well." And I occasionally get one partner and she comes around and says, "Sorry." And I say, "Don't worry, that's your only one." That kind of thing. We're quite a mature bunch, the eight of us. The previous partnership was a bit more testy, and the occasional points scoring. So someone would look to point out someone's error and rattle them a bit. But it never caused major conflicts. And we never had anybody who said, "I'm not doing it. I refuse to do it." 279 (GP Partner, Yr3)*

Occasionally participants described low levels of scrutiny, but this was rare. Whilst staff on the receiving end of messages highlighting deficient performance did not relish receiving these, most were fairly accepting of them. Being scrutinised by non-doctors did not appear to create tension amongst GPs. Many were happy to let others lead and take on responsibility for targets and respond to calls for action when asked.

*"we get sheets sent around saying these last 10 patients all need their blood pressures. And I look through them and I'll see if they've had a blood pressure done at the hospital" 366 (salaried GP, Yr3)*

*"to be honest, it doesn't take much. I turn my red things to whatever colour they go to. And if someone sends me an email, I try to remember it. But as long as we get roughly the same number of points each year, it doesn't matter.... I've got emails, Power Point league tables of who we caught for smoking [cessation advice given] or whatever." 347 (GP Partner, Yr3)*

*"It has always been you are doing really well in this, but you just need to focus on this a bit more, so that it has never been slap hands, you are doing really badly or what is happening here type of things; it is always done sort of quite positively. " 315 (salaried GP, Yr3)*

*"I never let it bother me. You do your best by your patients and that's fine and if people are questioning that or putting pressure on you to alter that, then you're not in the right environment. You just move on."* 290 (salaried GP, APMS practice, Yr3)

*"You're definitely not closely scrutinised. You're very independent and your independence is definitely fostered here. And no one would be looking over your shoulder, no. I know that deep in the QOF guidelines, when they're checking us and checking our response and see where we are, it's not individualised, it's done on a practice basis."* 371 (salaried GP, Yr3)

*"So sometimes by the time the patient's come in and gone out you've forgotten the pop-ups, and it's not until they come again and you think, "Oh, I didn't check that last time he came." So it's good the fact that it just keeps coming until you've sorted it out, to remind you that you need to do it."* 400 (salaried GP, Yr3)

*"In the management meeting... QOF plays a big part of it. So, it is maybe the partners, but we are there as well .... And we are always asked for ideas. ... sometimes, name and shame is the only thing that works, unfortunately, but it does.... and they're always willing to listen to what you have to say. They may not always accept it, but they listen to it."* 250 (salaried GP, Yr2)

*"light-hearted... it's not a name and shame, but if you don't do this, it will be picked up on and politely fed back to you for you to see."* 308 (GP Partner, Yr3)

*"one of the doctors who will be looking at our targets and see that and will also just send an email this is what we need to be doing, we are a bit low in understandably, we need to be looking at our smokers.... So, just keeping us in the know really... I don't mean long, bad emails; just sort of, this is what we need to be doing; and again you think, oh my goodness, so yeah certainly, certainly more pressure."* 318 (Practice Nurse, Yr3)

*"sometimes we do get emails from the doctors saying, "We're a bit low on..." like the flu jabs or something like that. "Get cracking," or something. [laughs] I check on everything anyway when I see a patient, so it's not a problem. Or I'll just reappoint them if need be."* 335 (Practice Nurse, Yr3)

As the above quotes illustrate, a range of internal scrutiny mechanisms are used to monitor performance against QOF. Reactions to these appear to depend on a number of factors including the nature of relationships ('testy' or otherwise) within the practice, the approach taken and the perceived effort required in responding to requests to improve performance.

**Patient surveys:** Participants' views differed on the extent to which patient surveys provided useful feedback.

*"it's always very complimentary to the nurses. So it assures us that we are doing quite a nice job. But if it's negative we have to act on it. We have to discuss it. When I first came here the previous nurse liked to do set clinics. ...I took that away because I felt that was too strict for the patients. The patients have sent back that they like to know that they don't have to come in on a Tuesday to get immunisations.... That was done as a result of feedback." 319 (Practice Nurse, Yr3)*

However, nobody reported these as overly intrusive or threatening. Even where negative feedback was received, some participants rationalised this as indicative of the quality of care provided.

*"some people really didn't like me, and I was a bit annoyed about that and disappointed to start with, and it was only a handful. And I thought 'actually no, that's a good thing because if everybody walks out thinking oh that's great,' thinking 'well actually that means I've challenged nobody and said actually no, you're not going to get antibiotics for that, they're not going to help and I don't want to do that.' Obviously, couched in much nicer way and much more sharing the agenda with the patient as one does. ... So some people will leave unhappy and I thought that's probably a good thing." 99 (salaried GP, Yr1)*

**Scrutiny of referrals:** In addition to performance against QOF targets, processes to monitor and scrutinise referrals have been established as part of the PBC developments.

*"We will bring up individual referrals in an open forum, and discuss the thinking behind them. So we can bore down to great detail without us feeling huffy that we're being criticised." 297 (GP Partner, Yr3)*

*"it's something we should be doing anyway. We do need to make sure that we're referring appropriately, so I don't find that particularly threatening really". 98 (GP Partner, Yr1)*

*"We have our referrals meetings. It's quite valuable because if you can't justify a referral then you shouldn't be doing it." 305 (GP Partner, Yr3)*

*"at first I was just horrified by it but then if you find out there are things that you could have done differently, because people will share 'oh well you don't need actually to refer that you could do this, or there's this primary care clinic that you could.' And there's so many different services you often can't stay on top of how many there are. And so doing that in that kind of meeting you kind of do get used to [it]... don't get too bothered about it. And it is quite useful bringing it up and discussing it a bit." 101 (salaried GP, Yr1)*

Although some GPs dislike these processes, the fact that PBC initiatives to scrutinise referrals are being led by fellow GPs, as opposed to somebody outside the profession, reinforces the idea that these initiatives are part of the community of general practice, rather than a PCT-led activity.

In contrast some US doctors reported that volumes of referrals and diagnostic tests were monitored by the group and linked to incentives, in a way which was inappropriate.

*the IPA gave a bonus at the end of year based on how much you spent on x-rays and labs and that sort of thing. .... if we're going to get money to order fewer tests, that's a conflict of interest.... Even people who are really well-intentioned are going to think twice about ordering the more expensive tests, because then they're going to receive less money in the end. USGP 16*

## **5.5 What is the effect of incentives to improve processes of care on patients' perceptions of care/services provided?**

### **5.5.1 Quantitative analysis**

#### **Interrupted time series analysis**

(Details of methods are included in Appendix 5)

**Communication and Waiting Times:** From our ITS analysis discussed earlier, the percentages of patients able to see a GP within 48 hours, as well as the mean scores on the GP-communication scale, showed no significant changes in trend.

**Continuity of Care:** Continuity of care declined significantly after the introduction of QOF ( $P < 0.001$ ) and remained at this lower level. Patient evaluations of continuity of care were 4.1 percentage points lower than in 2005 (95% CI,  $-6.1$  to  $-2.0$ ) and 4.3 percentage points lower in 2007 (95% CI,  $-6.9$  to  $-1.6$ ). (see table 8)

**Table 8. Mean Scores (Patient Perceptions) for 42 Practices in 1998, 2003, 2005, and 2007.\***

	1998	2003	2005	2007
Communication	69.4±1.0	70.5±1.4	69.1±1.6	71.3±1.2
Access † specific doctor	67.2±3.3	61.0±3.7	63.9±3.2	64.2±3.2
Any doctor	67.2±3.3	61.0±3.7	63.9±3.2	64.2±3.2
Continuity	70.7±1.7	70.3±1.7	66.2±1.8	66.0±1.6

\*Plus-minus values are means +/- SE.

† able to get an appointment within 48hrs

One possible explanation is that practices focused on meeting rapid-access targets in which access to any doctor in the practice within 48 hours was linked to incentives but access to a particular GP was not, making it more difficult for patients to see their own doctor. Another explanation is that there were increases in the size of practices, and many practices introduced nurse-led clinics for management of individual chronic diseases. Although this may have been an important part of improving the quality of care, it may have made continuity of care harder to achieve. Continuity is an aspect of family practice that patients value. At the same time, larger teams and more specialisation may be essential for delivering the improvements there have been in clinical quality and loss of continuity might be an unavoidable side effect.

### 5.5.2 Qualitative analysis

Concern has been expressed also about the effect of QOF on the way GPs and patients relate to each other within consultations<sup>116</sup>. In particular, the requirement for clinicians to pay more attention to computer prompts, reducing eye contact has been highlighted as a source of concern. However, our quantitative findings of no overall



change in patient assessments in their experience of communication with their usual GP resonate with our qualitative data. Indeed, although patients were aware of practice staff using computers in consultations they saw this as beneficial, in terms of having access to patient records on screen. Similarly, being called in regularly to attend the practice was often interpreted as the practice looking after patients.

*"I can see a doctor on the day that I want to. So I'm not having any problems there. I must say, in fairness to them as well, they have improved the practice tremendously from how it was. You'd go there and be sitting there half the day, and all that sort of thing. Now it's good.... I've no problems, really, with the practice.... But I'm quite happy with that [doctors looking at the computer a lot]. Because what we've had quite often, is we'll go along to something, and it'll be, "Oh you'll have to wait, we haven't got your records"... And it was through that [being called in for a CHD clinic] that they finally decided -- the last one, about December-ish -- that I'm diabetic. .... all I do is take tablets and be a good boy." PT 21 (Male, Age 77)*

*"I've noticed a difference and I actually wonder whether that incident where Tony Blair was made aware .... he was told by someone that some practices were not prepared to book to more than a couple of days in advance because they were thereby ensuring that they were providing ... patients with that timescale. I remember prior to that phoning sometimes and wanting to make an appointment. ....And finding that quite difficult, then .....Now I don't know what's happened but when I have needed to see a GP fairly promptly I haven't had any difficulty....So I don't know if they've somehow done something to the system." PT08 (Female, 59)*

*"Yeah, I go to the [practice] in [district]. I've no complaints about them actually; they've been very good.....They check that I go to spirometry. ... regularly and make sure your breathing's all right. ... they're very good. If I'd rung up this morning, I'd have been seen today....I've had a bypass - so anything to do with that I go and see the doctor. But for the MOT, she goes through it all and asks how we are and all like that. Any other thing, she does that. They're not the doctor, you'd go to her rather than go to the doctor. I think she does the spirometry thing. ... I'm on medication. They [the tertiary centre] liaise with my doctor and it just comes up on the computer. And they say, "I'll inform your doctor that we're giving you X tablets." This, that, and the dosage and everything. So the doctor knows what's going on sort of thing, by the computer." PT17 (Male, Age 77)*

*"I'm more satisfied now than I used to be... when I went I was seen absolutely straight away, so overall I'd probably say I was satisfied.... She can sort of, she's typing up and whatever, and she'll get on with the prescription or....and she'll also be friendly to the children, and to me I think the computer system's much better than them notes they used to have when I was a kid."*  
PT09 (Female, Age 35)

*"It's [access] fairly good actually. There was a period they went through where you couldn't make appointments more than so many days or phone back ...But if I phone up in the morning I've usually been able to get an appointment, not necessarily with a named doctor, but I can see somebody....it's usually fairly easy to get an appointment".* PT13 (Female, Age 61)

The comment that access had got more difficult below was in stark contrast to most responses.

*"the Diabetic Clinic isn't a problem because they will fit you in. But with any other appointment you've got to ring early that morning if you want it that day. ..They will let you make appointments ahead. I just think they've cocked it up completely with this new system and targets and things. ... so no it's not as easy as it used to be."* PT28 (Female, Age 61)

However, whilst access did not appear to be an issue for most people, there were complaints about having to attend one's practice from asthma patients who felt this was of little value, especially as they were able to manage their asthma themselves.

*"It's [my asthma] maintained, pretty good.... The regular sort of yearly checks before the prescription needs to be renewed again, peak flow that sort of thing, just general sort of health check. ...I pretty much know my own sort of condition to know when I need help and when I can manage it myself. ... they sort of insisted that I went in for a check with a nurse which I found really irritating....the time involved in going and she didn't tell me anything that I didn't already know and I couldn't tell her anything other than what I already knew, it was just pointless."*  
PT24 (Female, Age 49)

*"the last time I was called was a year ago.... and I declined. I'd also been kind of pressured, as in fact had other family members...to have flu jabs as well. we'd all refused....at the time of that check I was then asked to sign something not to have the flu jab and I refused....I had another letter asking for*

*another asthma check so I declined it. I'd actually gone in about something completely different the second and third time, which is to do with an ear problem...the first thing that happened when I got into the appointment was they produced a letter for me to sign, ... to sign away basically my rights to the asthma checks. I actually refused to sign it. And then there was this kind of a slight standoff. ... the doctor clearly wanted me to sign it, felt that she ought to get me to sign it. But of course there was no, absolutely no reason why I should sign absolutely anything. I have consistently refused to sign any pieces of paper to do with having an asthma check. The main reason is that I, I feel I can monitor my asthma as well as the surgery can .... I've had asthma for 20 odd years so I mean I know my asthma. So, it just seems a bit pointless having to go through what I see as a fairly routine and unnecessary check". PT11 (Male, Age 52)*

## **5.6 What is the impact on team organisation and relationships?**

### **5.6.1 Qualitative analysis**

The transfer of responsibility under the new GP contract, from the individual GP to the practice was reported as requiring practice staff to work together and as resulting in changes to the division of labour and ways of working more generally.

*"it's just made us generally operate much more as a team, because the entity that has to jump through all the hoops is the practice, not the individual doctors. So that'd led to, as I said, different areas of responsibility between the team. Whereas we were operating much more individually before." 339 (GP Partner, Yr3)*

Respondents reported that nurses were playing an increasingly important part in the delivery of services. Many, but not all, practices ran chronic disease management clinics staffed by nurses. Health care assistants were also reported as playing an increasing role in practice life.

*"chronic disease management has been far better managed I believe in primary care than it has ever been done in hospitals, and it is probably better managed by nurses who are appropriately trained than by GPs" 320 (GP Partner, Yr3)*

*"We tend not to run many clinics. There's a Wednesday afternoon where [names nurse] does chronic disease*

*management; an asthma check, a diabetic or even a CHD check - but we don't run specific clinics just to get the QOF points up, sort of thing, which I know a lot of practices do."* 296 (GP Partner, Yr3)

*"[Name] was a very much low key nurse. But now she's done courses, she even runs her own COPD clinic now. ....One of our other nurses has looked at our hypertension register, and she's got, off of that, she's got patients in and she's doing the blood pressure.....I guess that's something that a health care assistant can do, but she's also making decisions as to management of those patients. So she'll come to us and say "Right, I think this person needs to have the Felodipine increased" or whatever it may be. Or "Can we start them on a whatever". .. So she's coming at it more as an experienced person, rather than "Yes, you've had your blood pressure, go away, make appointment to see the doctor." 198 (GP Partner, Yr2)*

Whilst GPs appeared increasingly content to delegate work to nurses, opinions differed amongst practice nurses, with regard to delegation to HCAs.

*"spirometry, she does smoking cessation, she does phlebotomy. She does blood pressure monitoring. She sets up mostly the 24 hour blood pressure monitoring. She can monitor blood pressure..... they have been giving flu vaccines; they've just gone on a course. ... they have been doing some.... smoking cessation, and sometimes some admin work. She was setting people up on the CBT...And they have to go on the computer first and go through a set. ....And then they see the counsellor .....Is taking a blood just taking a blood? Yes, sometimes it is just taking a blood, but it's not always just taking a blood. Other things can come up. It's not just a task, there's skill involved, and as I said, there are other things involved that pop up. There's always the QOF, which you're supposed to look at every time, but also, people might be depressed or bring up something else, et cetera."* 300 (Practice Nurse, Yr3)

GPs often reported that this freed up their time for more complex patient management issues. Although working more intensively, as GPs described it, was not always welcomed.

*"And so if somebody comes to see me because they've got poorly controlled diabetes or poorly controlled high blood pressure, it's because the nurse has sent them and that illness isn't controlled and therefore, I've got to do something. .... it's*

*more challenging and complicated .... There's less routine work as a GP." 232 (GP Partner, Yr2)*

*"things [have] definitely changed, I mean our nurses are quite keen to develop and they're quite happy to extend their roles. I suppose it's altered the workload balance really so whereas a few years ago you'd have seen lots of sore throats, lots of pill checks and stuff within your surgery you're not seeing any of that now. ...you're seeing much more concentrated pathology when you actually do surgeries now." 98 (GP Partner, Yr1)*

*"we're seen as the person that has to do the complicated stuff, which is fair enough. If you're doing the complicated stuff constantly, it grinds you down in the end. It's nice to have a bit of light relief now and again. The light relief is being taken by the other professionals. In some respects, it makes it harder." 281 (GP Partner, Yr3)*

In addition, as we discuss above, there has been an increasing tendency for practices to employ salaried GPs, rather than taking on additional partners. Whilst many respondents reported working as a team, which appeared to enhance the working arrangements and provide support, in some cases comments indicated that these teams were characterised by hierarchical relationships.

*"It's a team effort, really. I will tend to keep quite a close eye on the QOF, but then, so did [colleagues]. We'll holler out things to each other. So, it's really a team effort, the QOF, to be honest.....our admin have helped, in terms of auditing patients. I've just made up spreadsheets for the information that I need and when they've sat in reception doing nothing, they've gone through the patients and collated the information for me, which highlights what's missing for which patients." 290 (salaried GP, APMS practice Yr3)*

*"We have a team leader allocated for each area of QOF. ... the practice manager, and I oversee it together. I make sure that everything is being done and that the systems are in place. [I] leave the team leaders to do the hard work, I suppose. I am responsible for being there for the QOF visit and explaining ourselves to the PCT when they come." 295 (GP Partner, Yr3)*

The new contract reforms were not implemented in a vacuum. Where relationships were reported as good prior to the contract, this helped with adapting to recent reforms. Comments on the commitment to a

shared philosophy are in stark contrast to the PCTMS practice interviewees discussed earlier.

*"working in a team with common aims, who enjoy working in a similar way then .... despite all the pressure, the time constraints, despite all the central government interference is, still incredibly enjoyable..... a way of working if you like, cultural norm almost a philosophy of this practice....it's quite hard to define something like that, but there's no doubt that it's here, and it's largely being around treating our patients with respect but giving them some responsibility for their health care. And that's been a constant for twenty-five years" 297 (GP partner, Yr3)*

*"I had my appraisal yesterday, and I said to the chap who was the appraiser, "One of the best things, from my point of view, is that my colleagues and I - we're general practitioners and nurses and everyone else - get along extremely well together." We all have a common purpose and philosophy, et cetera, et cetera. We're not a very formal practice. We're pretty informal, and we just get along well with each other, and that's good! We have a great time." 333 (GP partner, Yr3)*

For nurses and GPs, attitudes towards working arrangements and relationships also appeared to be influenced by previous experience in organisational settings. Whilst respondents talked about team working and colleagues providing varying levels of support in a general way, occasionally, accounts were given of a previous bad experience. Good working relationships may become taken for granted and not reflected upon in interviews, but these stories illustrate the way in which the absence of supportive relationships can act as a powerful influence on attitudes and behaviours.

*"the worst part for me was the bullying [with previous employer], when I actually nearly lost my mental health for a while... If I went to [senior partner in current practice] and I said "Look I can't possibly do this, I can't, I'm going to have a nervous breakdown." He says "OK, fair enough". It was an awful time and I will never, ever forget that. I know with the GPs [here] that won't happen. They are pretty fair really.... I said, "No. I am not doing it." And they said, "Oh, OK fine." And they got someone else to do it. So he's not going to bully me, because I didn't do it." 337 (Practice Nurse, Yr3)*

*"I gave the child the MMR, and the mother said oh, you haven't given him MMR, have you? I said yes, and she said I didn't want him to have it, my son is autistic...and of course all hell*

*broke loose. Her husband gave me verbal abuse and that on phone. He threatened to come and get me with a baseball bat. I went up to the practice manager and I was in tears by this time.... the two GPs and the practice manager sat me down and said well, if it goes to court, we won't stand up for you in the court of law. ...that's coloured my opinion somewhat... mistakes can be made....it makes you a better nurse if you realise you can make mistakes... the trouble is ....when you are in the scenario where you've been told that you won't get any backup... you're less likely just to let on you make a mistake in the future." 321 (Practice Nurse, Yr3)*

*"there was a lot of problems in the practice and the reason I had an in-house appraisal ..... [names GP] one of the senior partners ... said they were doing it, because they were aware that all of us weren't happy last year. ...there was a complaint in the practice last year directed to me that there were two issues about. One is that they called me in off my holiday to come and sort it out, and I didn't think it was needed. So, it wasn't a clinical complaint, it wasn't about my clinical decision....But, the second aspect of it was that I felt that they, the partners didn't trust my professional judgment in terms of what I had done" 113 R2 (salaried GP, Yr3)*

*"The only time I appeared in front of a disciplinary tribunal, and hopefully the only and last time... was actually to do with out of hours. And making, or contributing to a poor reaction to the patient when I'd been woken from a deep sleep at three o'clock in the morning, must have been completely shattered. And ever since then I've sort of been desperate not to be found in that position again. So it's [ability to relinquish responsibility for out of hours care] been fantastic." 309 (GP Partner, Yr1)*

Although as the above quote illustrates, one bad, relatively dramatic experience, regardless of whether or not it relates to emotional support and relationships, can act as an important prism through which people view changes to their current role.

### **5.6.2 Quantitative analysis**

Some of this resonates with our analysis of practice profile questionnaires and staff workload diaries for 2003 and 2005. In our 42 practice sample, the mean number of GPs, nursing staff and administrative staff per practice increased, with increases in nursing staff occurring mainly among nurse practitioners and healthcare

assistants (see table 9). The increase in administrative staff was equally split between reception staff and other workers. There was no change in the average practice list size between 2003 and 2005 among the 32 practices for which the list size was available in both years.

32 practices returned workload diaries in both years and analyses of these showed no change in the amount of time spent on patient care and other activities by nursing staff or GPs between 2003 and 2005 (see table 10). The average number of consultations for nursing staff increased between 2003 and 2005, whereas the rates for doctors declined. There was a change in classification by nursing staff of consultations between 2003 and 2005. The proportion of consultations that nursing staff classed as 'simple' or 'very simple' decreased between 2003 and 2005, while the proportion classed as 'complex' or 'very complex' increased. In contrast, there was no change in the complexity of consultations undertaken by GPs between 2003 and 2005 (see table 11).

There was a significant change in the types of problems seen by GPs but not nursing staff from 2003 to 2005. Among GPs, there was a small but significant increase in the combined prevalence of problems

In interviews some GPs suggested that the complexity of their work had increased as routine care is delegated to nursing staff, leaving GPs to manage the more complex patient problems. However, in our quantitative study, GPs' self-reported complexity of consultations and the number of patient problems per consultation showed no significant changes. Either these measures were too crude to capture changes in work intensity or other aspects of work underlie doctors' perceptions of increased workload. In contrast nursing staff reported an increase in both consultation rates and the complexity of those consultations. This is understandable if nursing staff assumed greater responsibility for patient management.

This study also found that nursing staff had to work faster and deal with more complex patient problems following the expansion of their role under the new contract and this is supported by the reports obtained from nurses in our interviews.



**Table 9. Team size and composition among general practices, 2003 and 2005**

		2003			2005		Wilcoxon test	
	n	mean	median	n	mean	median	z-value+	p-value
GPs	181	4.3	4	202	4.8	4	2.621	0.009
Nurses (total)	118	2.8	2	138	3.3	3	2.705	0.007
Practice nurse	105	2.5	2	113	2.7	2.5	-	-
Nurse practitioner	2	0.05	0	5	0.1	0	-	-
Health care assistant	11	0.3	0	20	0.5	0	-	-
Administrative	415	9.9	9	459	10.9	10.5	3.068	0.002
In reception*	247.5	5.9	6	273.5	6.5	6	-	-
Out of reception*	167.5	4.0	3.8	185.5	4.4	4.3	-	-
Other	29	0.7	0	30	0.7	0	0.144	0.886
Total	743	17.7	16.5	829	19.7	19	-	-

\*Some administrative staff had split roles and worked both in and out of reception

+The normal approximation to the Wilcoxon test was applied

**Table 10. Mean hours per week spent on aspects of care: change from 2003 to 2005 with 95% confidence interval (95% CI)**

	Nurses				GPs			
	2003 (n=82)	2005 (n=98)	Change	95% CI	2003 (n=111)	2005 (n=121)	Change	95% CI
Direct care	18.38	18.02	-0.36	-3.44,2.72	21.41	21.69	0.31	-2.43,3.06
Indirect care	1.18	1.50	0.32	-0.48,1.13	5.39	5.88	0.44	-0.58,1.45
Admin	1.62	1.55	-0.07	-0.73,0.59	2.72	4.04	1.24	-0.49,2.97
Teaching	0.55	0.31	-0.24	-0.74,0.26	0.52	0.23	-0.30	-0.61,0.00
other	0.70	1.00	0.30	-0.03,0.89	2.32	1.78	-0.60	-1.92,0.72

**Table 11. Complexity of consultations and nature of patient presenting problems in 2003 and 2005**

	Nurses				GPs			
	2003 (n=70)		2005 (n=86)		2003 (n=97)		2005 (n=106)	
<b>Complexity of consultation</b>	Number	%	Number	%	Number	%	Number	%
Very simple	586	16.2	658	13.2	1117	12.7	1100	12.7
Simple	1962	54.3	2772	55.5	4412	50.0	4401	50.9
Complex	848	23.5	1224	24.5	2792	31.6	2673	30.9
Very complex	184	5.1	163	3.3	413	4.7	375	4.3
Missing	33	0.9	174	3.5	92	1.0	90	1.0
Total consultations in week	3613	100	4991	100	8826	100	8639	100
Mean number of consultations per week	51.6		58.0		91.0		81.5	
<b>Nature of presenting problem</b>								
Acute	770	17.0	1125	17.8	5539	44.4	5318	43.8
Chronic	1229	27.2	1724	27.3	5061	40.5	4989	41.1
Prevention	1695	37.5	2393	37.9	1185	9.5	1312	10.8
Other	832	18.4	1076	17.0	702	5.6	526	4.3
Total problems	4526	100	6318	100	12487	100	12145	100
Problems per consultation	1.25		1.27		1.41		1.41	

### Limitations of the analysis

Workload diaries have an inherent degree of inaccuracy despite being the preferred method for gathering work information from large numbers of practices. As the propensity to over/under estimate time commitments is likely to have operated in a similar way across all

practices in both time periods, we have no reason to suppose that the observed differences over time are biased.

Proportionately fewer GPs and nursing staff completed workload diaries in 2005 than 2003 and non-response in both years was higher for doctors than nursing staff. If non-responders worked less intensively (e.g. fewer hours seeing less-complex patients) than responders, then it is possible that nursing staff experienced little or no increase in workload while doctors experienced a marked decrease.

Alternatively, if non-responders worked more intensively than responders, we will have underestimated the magnitude of the change in workload for both doctors and nursing staff, but the underestimate will be greater for doctors. Even so, the increase in workload for doctors would appear lower than that for nursing staff. As we did not collect the workload data from all staff, we cannot say in what ways the work of allied health professionals and administrative staff may have altered the work of the GPs and nursing staff we studied.

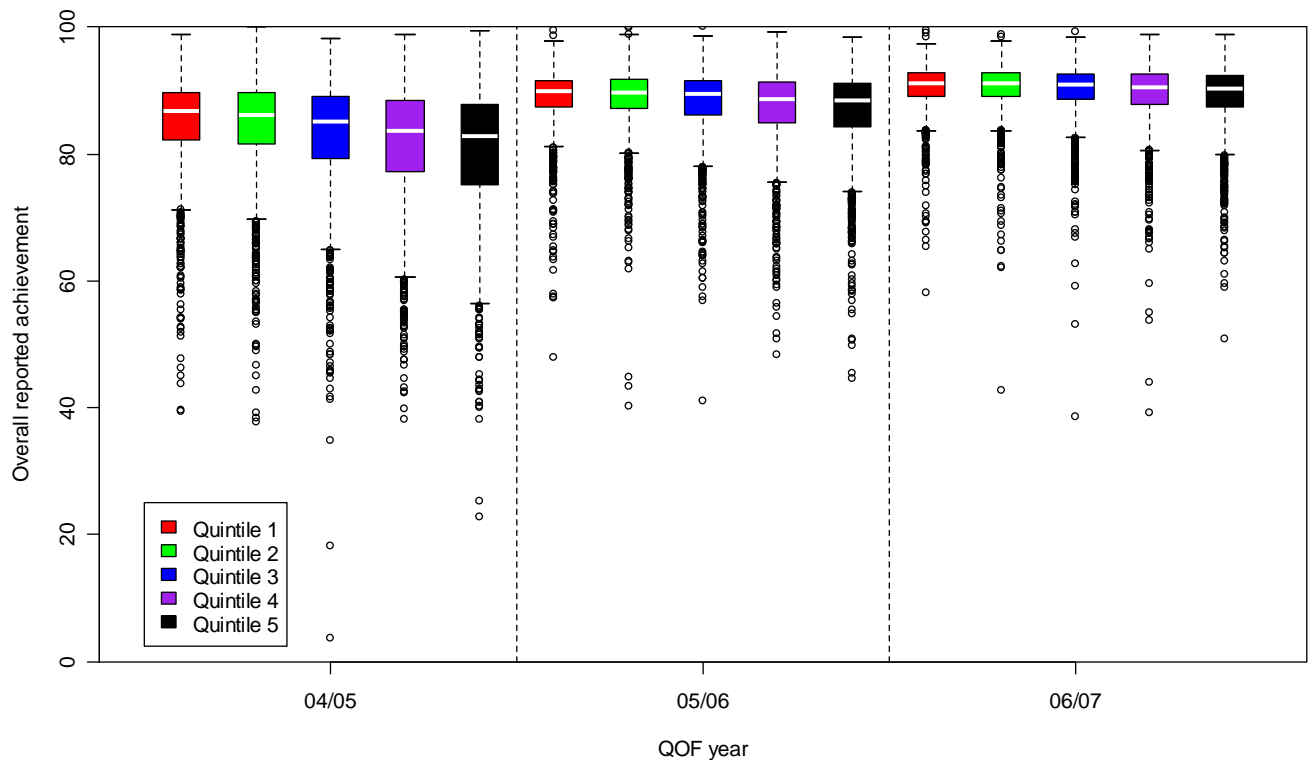
## **5.7 Are there any unintended consequences for patients and will they have differential effects which disadvantage or privilege particular patient groups?**

### **5.7.1 Quantitative analysis**

There is potential for the QOF to demotivate PCPs working in areas of high deprivation, because targets may be more difficult to achieve. Incentive schemes can increase inequalities in the delivery of care if practices in affluent areas are more able to respond to incentives.

We examined overall levels of achievement for 48 clinical activity indicators during the first three years of QOF (2004-05 to 2006-07) and its association with area deprivation (see Appendix 5). Practices were grouped into quintiles on the basis of area deprivation in their locality. In Year 1 area deprivation was associated with lower levels of achievement: ranging from median 86.8 percent achievement for Quintile 1 (least deprived) to 82.8 percent for Quintile 5 (most deprived). Between Years 1 and 3, median achievement increased by 4.4 percent for Quintile 1 and by 7.6 percent for Quintile 5, and the gap in median achievement narrowed from 4.0 to 0.8 percent over the period (Figure 3). Change in achievement over time was inversely associated with practice performance in Year 1, but was not associated with area deprivation.

**Figure 3. Distribution of scores for overall reported achievement by deprivation quintile, 2004-05 to 2006-07**



Sources for figures 3 and 4: data extracted automatically from clinical computing systems for 7637 general practices in England, data from the UK census, and data for characteristics of practices and patients from the 2006 general medical statistics database.

*[Explanation of figure: Quintile 1 is the 20% of practices in least deprived areas and Quintile 5 the 20% in most deprived areas. The line in the centre of each box shows median achievement rate, the box shows the interquartile range (IQR), and the 'whiskers' the range of scores. Circles represent statistical outliers – i.e. individual practices with achievement rates outside the range: first quartile – (1.5×IQR) to third quartile + (1.5×IQR). Deprivation is based on the practice locality, using the Index of Deprivation 2004.]*

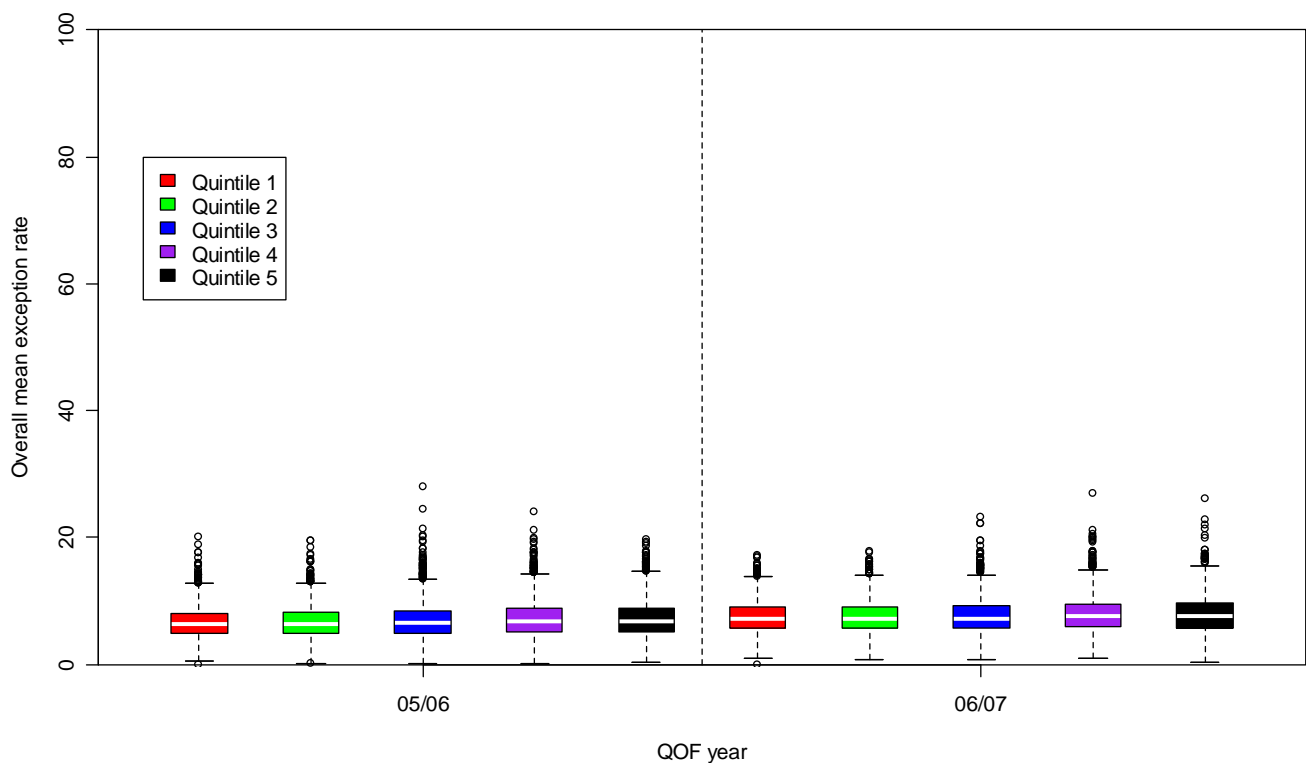
The median overall reported achievement—the proportion of patients who were deemed eligible by the practices for whom the targets were achieved—was 85.1% (IQR 79.0–89.1) in year 1, 89.3% (86.0–91.5) in year 2, and 90.8% (88.5–92.6) in year 3. Increases in achievement between years were significant ( $p < 0.0001$  in all cases). Although average levels of achievement increased over time, variation in achievement diminished.

In year 1, progressively lower levels of achievement were associated with increased levels of area deprivation. Median achievement ranged from 86.8% (IQR 82.2–89.6) for quintile 1 (least deprived) to 82.8% (75.2–87.8) for quintile 5 (most deprived), with variation in achievement between practices increasing with deprivation.

Although median levels of reported achievement improved for all deprivation quintiles in years 2 and 3, practices from the more deprived quintiles generally improved at the fastest rates (figure 3). Between years 1 and 3, median achievement increased by 4.4% for quintile 1 and by 7.6% for quintile 5, with the gap in median achievement between practices from these quintiles narrowing from 4.0% in year 1 to 1.5% in year 2 and then to 0.8% in year 3. Variation in reported achievement also decreased at a faster rate for practices in the most deprived areas. These patterns of increasing median achievement and decreasing variation in achievement over time were consistent across all 48 individual indicators.

In all 3 years, the highest performing 5% of practices were distributed quite evenly across the five deprivation quintiles. Quintiles 4 and 5 tended to have fewer of the best-performing practices, but differences were not statistically significant. By contrast, the more deprived the quintile, the more of the poorest performing 5% of practices it contained. In every year, three to four times as many of the poorly performing practices came from quintile 5 than from quintile 1.

**Figure 4. Distribution of scores for overall exception reporting by deprivation quintile, 2005-06 to 2006-07**



Overall, practices excluded a median 6.57% (IQR 5.03–8.45) of patients in year 2, with generally little variation in rates between

practices (figure 4). Greater deprivation was associated with marginally higher exclusion rates (ranging from 6.29% [4.98–8.12] for quintile 1 to 6.80% [5.03–8.89] for quintile 5) and variation in rates. In year 3, the median rate increased to 7.40% (5.79–9.30). Median rates ranged from 7.21% (5.79–9.04) for quintile 1 to 7.59% (5.77–9.69) for quintile 5. 113 (1.5%) practices excluded more than 15% of patients in year 2 and 128 (1.7%) did in year 3.

In both years, almost twice as many of the 5% of practices with the highest exclusion rates came from quintile 5 than from quintile 1. By contrast, the 5% of practices with the lowest exclusion rates were fairly evenly distributed across the deprivation quintiles, although quintile 1 tended to have fewer practices with very low exclusion rates than did quintile 5.

The relation between area deprivation and practice achievement might be explained by other characteristics of practices or practice populations that are associated with deprivation. The characteristic with the strongest association with achievement was the exclusion rate: a 1% higher rate of exclusions was associated with a 0.35% higher rate of achievement in year 2 and a 0.16% higher rate in year 3.

The association between area deprivation and reported exclusion rates remained significant after regression analysis, with practices serving the most deprived population having a modelled exclusion rate that was 0.55% higher than did those serving the least deprived population in year 2 and 0.67% higher in year 3. All other significant associations were small.

We also noted an association with change in exclusion rates: a 1% increase in exclusion rate between years 2 and 3 was associated with a concurrent 0.42% increase in achievement. Increases in exclusion rates in year 3 were associated with lower rates in year 2, but were not significantly associated with area deprivation.

In summary, this analysis shows that variation in the quality of care related to deprivation was reduced during the first 3 years of QOF.

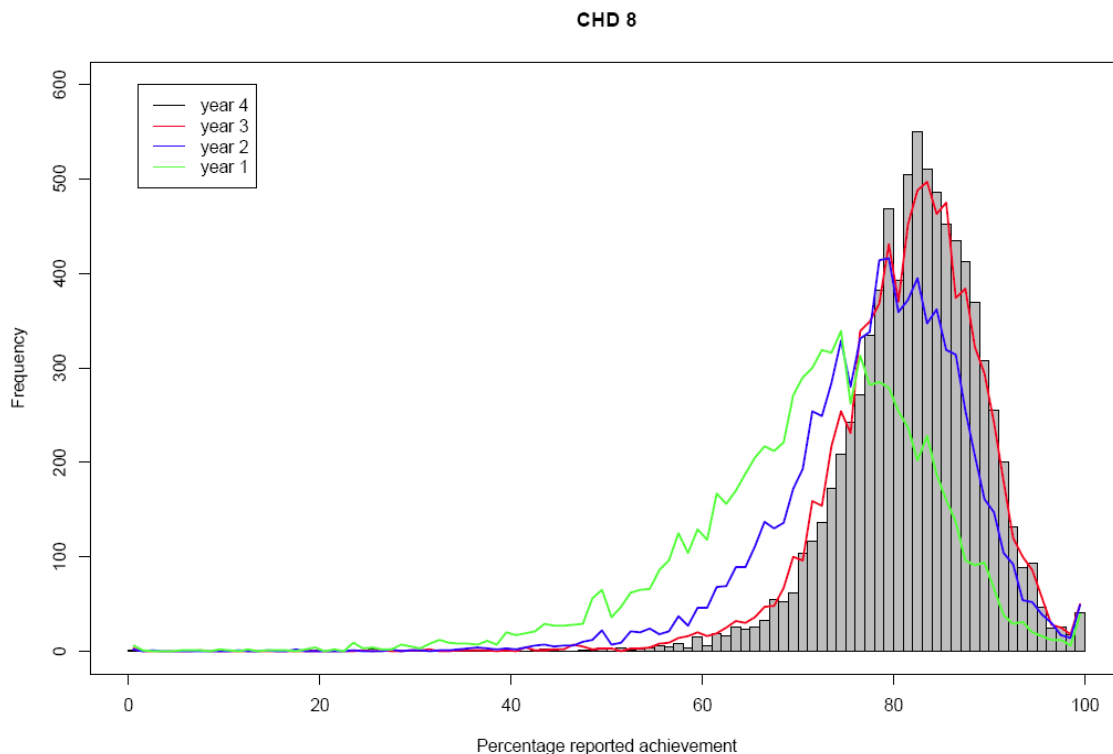
There are important caveats, however. Firstly, the results assume accurate recording of activity by practices, which were financially incentivised to report high levels of achievement. Improvements may have been simulated by over-reporting numerators (e.g. claiming a missed target had been achieved) and/or under-reporting denominators (e.g. inappropriately exception reporting 'difficult' patients). Over half of the increase in reported achievement between Years 2 and 3 was explained by concurrent increases in exception reporting, some of which may have been inappropriate. Secondly, the assessed activities are mainly concerned with secondary prevention in people with existing chronic disease, and inequalities could have widened for unincentivised activities, particularly in practices which were devoting all their efforts to meeting the targets.

## **5.8 Is there evidence of ceiling effects or the pursuit of target, as opposed to maximum, income? And is there evidence that PCPs are willing to forego income in exchange for other things? Quantitative analysis**

As we discussed above, for all aspects of care — whether associated with incentives or not — and for all three conditions examined in our ITS study, rates of quality improvement slowed considerably after 2005. One possible explanation is that this is evidence of doctors aiming for a target income. However, the deceleration in improvement for most indicators may relate to the maximum achievement thresholds, which for the majority of indicators have been set far below average levels of achievement. For example, for indicator CHD 8 (coronary heart disease patients with cholesterol  $\leq 5$  mmol/l) the maximum threshold was initially set at 60%, and 84.3% of practices achieved above this level in 2004/5 (figure 5). Even though the threshold was increased to 70% in 2006/7, by 2007/8, 95.4% of practices were achieving above the maximum threshold. This suggests that doctors are not seeking to do just enough to achieve the target and no more and suggests that practices under the QOF do more than is required to secure maximum remuneration under the scheme.



**Figure 5. Reported achievement on CHD8 (coronary heart disease patients with cholesterol  $\leq 5$  mmol/l) for 7.870 practices in England, Year 1 (2004/5) to Year 4 (2007/8)**



### **5.9 What is the impact of size of organisation? Are there free-rider effects in larger organisations and if so, how are these dealt with? Qualitative analysis**

We explored this issue using interviews and found that the surveillance mechanisms in practices meant that larger practices were not particularly prone to free rider effects. In some practices GPs reported ignoring QOF targets and some part time GPs seeing relatively small numbers of patients managed to 'duck under the radar'. The argument was also made that large practices enabled QOF refusniks to avoid QOF duties, since there were enough other staff willing to do that work.

*"What if you have somebody who is not pulling their weight? It's typical to have that discussion because it is an issue for us at the moment. Because it is so apparent, there is no opportunity to hide it. You can see where you are at with it. If you are not doing it, then you are going to have to sit down in front of everybody and explain it. And it is quite interesting to do it at the away day because that is the whole practice that is sitting there. If somebody should say, "Hey, you are not doing your whatever." 139 (Practice Manager, Yr2)*

*"I just manage to duck under the radar because I don't see enough people, so it's only the occasional one of mine that'll appear so there's no pattern emerges." 99 (salaried GP, Yr1)*

*"for the large practice the doctors now can't hide and do their thing. They are accountable. Everybody is accountable to everybody else. The audit trails show that and the cost figures show and you can track back to see who has not done what. So, there is less room to hide.... They shine up because it is IT based as well and there is an audit trail measuring things on a quarterly basis." 225 (GP Partner, Yr2)*

However, whereas free riding might cause tensions and concerns, for staff who objected to aspects of work either because it clashed with their views of appropriate clinical practice or because they felt insufficiently skilled to undertake particular tasks, allowances and accommodations were sometimes made to work around individuals.

*"in a large practice you have, you can play to your skills and interest. If you're in a small practice then there are certain things that you have to do, so for example, QOF would be something you would have to do." 309 (GP Partner, Yr1)*

*"We've got a large enough practice to allow those who really want to do that to move into it, and the ones that are quite piddling along and being not quite so intense. Fair enough." 348 (Practice Nurse, Yr3)*

*"Children and babies freak me out because as I said, it goes against my grain to be so autonomous with children and babies ....If a baby vaccine comes in, I flatly refuse to do it because I've not had the training, I don't know what vaccines they have. I'm not just going to go to a chart and look at it. No, I won't do it." 300 (Practice Nurse, Yr3)*

*"They are not driven by money ... but it does feel like they sign up for everything, and then it's kind of everybody has got to deliver it. And, there is still the consultation about that, and I suppose if I turn around and say well, I am not doing it, they'd say okay....I am not measuring anybody's BMI, I am sorry; I am just not doing it. 113R2 (salaried GP, Yr3)*

*"you have some partners who are very good at ticking all the boxes and some who are really rubbish at it. But at the end of the day, luckily in this practice, everyone's sort of committed to the same goal... the disorganized ones, I suppose, end up with very long lists which take a long time to have to go through in March." 295 (GP Partner, Yr3)*

## **5.10 What is the potential for 'gaming' the system and is this exploited in practice?**

### **5.10.1 Quantitative analysis**

We examined the exclusion of patients from QOF targets and found that the median rate of exception reporting for all practices in 2005/2006 was 5.3% (interquartile range, 4.0 to 6.9). This rate ranged from 0 to 28.3% according to practice. In terms of disease groups, the lowest median rate of exception reporting was 0% for hypothyroidism (on the basis of a single indicator relating to thyroid-function tests during the preceding 15 months) and the highest was 7.6% for cancer (on the basis of a single indicator relating to review of care coordination within 6 months after diagnosis). Since each disease had a different set of indicators, direct comparisons of overall rates can be misleading; however, certain activities were replicated across disease groups, thereby facilitating some comparisons. For example, there were modest variations in rates of exception reporting for smoking-cessation activities and wider variations for the administration of influenza vaccine (from 9.8% for patients with coronary heart disease to 16.0% for patients with asthma).

In terms of type of activity, the lowest median rate of exception reporting was for offering treatment (1.4%), and the highest was for providing treatment (12.6%). Almost half the indicators involved regular review of patients with chronic diseases (e.g., routine measurements of blood pressure and cholesterol). This group of indicators had relatively low rates of exception reporting (median, 2.5%). The exception was the cancer indicator, which required a comprehensive review of patients who potentially could be seriously ill.

Rates of exception reporting for diagnostic and referral activities were generally higher than average (median, 6.5%), the exception being peak flow measurements for patients with asthma, which could be carried out in practice without referral to an external agency. The fifth group of activities (achieving intermediate outcomes) was the only one that involved outcomes rather than processes (e.g., achieving target levels of cholesterol and blood pressure), and rates of exception reporting for these activities were moderately high (median, 7.1%).

There was no correlation between the mean rate of exception reporting and the number of points (and financial rewards) available for individual indicators. The indicators with the highest rates of exception reporting were beta-blockers for patients with coronary heart disease (24.7%), vaccinating patients with asthma against influenza (16.0%), and keeping patients with epilepsy free from convulsions (13.8%).

### ***Characteristics of Patients and Practices***

Increased overall rates of exception reporting were associated with practices located in densely populated areas and those with relatively small proportions of patients under the age of 16 years or over the age of 64 years. Large practices also excluded a higher proportion of patients. Logistic-regression analysis identified the latter two variables (large practice or skewed age range) as the only significant predictors of practices being in the top 1% of those reporting exceptions. All these effects were modest.

An increase of 1000 patients in the practice population was associated with an increase of 0.04% in the rate of exception reporting, and the variables included in the multiple regression model explained only 2.7% of the variance. Although there were some significant deviations for individual diseases and types of activity, these differences did not conform to any meaningful pattern.

Increased rates of exception reporting in 2005/2006 were associated with higher achievement rates in 2004/2005 for certain conditions (asthma, coronary heart disease, and epilepsy) and for activities that involve providing treatment; increased rates of exception reporting were associated with lower achievement rates for other conditions (cancer, chronic obstructive pulmonary disease, hypothyroidism, and hypertension) and for all other types of activities. All these associations were weak in real terms.

### ***Financial Gain***

Out of a maximum 492 points for the clinical activity indicators, practices gained a median of 13.9 points (interquartile range, 8.6 to 21.2) from exception reporting. As a proportion of the total points available for these indicators, this score translated into a median of 2.8% (interquartile range, 1.7 to 4.3). The percentage gain ranged from 0% percent (in 15 practices) to 25.4% (in 1 practice). Given an average reward of £125 per point, practices gained a median of £1,738 as a result of exception reporting, with a maximum financial gain for an average-size practice of £15,500.

Exception reporting has been the subject of much discussion, with a recent National Audit Office report recommending tighter restrictions on the ability of practices to exclude patients from target performance calculations<sup>22</sup>. As we indicate above, however, in

England, rates of exception reporting have generally been low with little evidence of widespread gaming.

### 5.10.2 Qualitative Analysis

Our interviews shed further light on this issue, with many responses being consistent with the finding that practices were not gaming the system.

*"We as a practice try and keep it down to as minimal as possible, but there are times when you just can't do it. There's no way that you can get a patient to engage with us, clinically... This is punitive if you want to do this [remove ability to exception report]. It's not our fault. We've tried our best. At what level do you want us to try, because we're not going to go visit a patient every day at home to make sure they've taken their metformin tablets. That's just not going to happen ... it's unfair if they remove it completely, but on the other hand, I suspect, or I've heard of, quite high levels of exception reporting, which is not playing the game fairly. So I can understand why people would get upset about it." 275 (GP Partner, Yr2)*

Many GPs reported that QOF for other practices did not indicate quality and some described practices as abusing the system.

*"Everybody is a high achiever. I was a QOF assessor for four years or five years, and I am also writing a book on fraud in the NHS, to put the two together. Alright?" 320 (GP Partner, Yr3)*

*"When I see a QOF score on a job advert or anywhere, I don't see that as an indicator necessarily of good quality practice. I see it as an income factor." 228 (GP Partner, Yr2)*

*"if you do it without any humanity, then it seems to be bad medicine. ...you do hear reports of it being done badly." 235 (GP Partner, Yr2)*

*"obviously it's subject to a lot of abuse, because you can fiddle it." 227 (GP, Social Enterprise, Yr2)*

The extent to which such comments reflect actual events is unknown. As outlined earlier, QOF appeals to the competitive streak in many GPs. If doing well, relative to other practices is a motivator, then this may create problems when so many practices are doing equally well.

In addition to the comments discussed above about QOF improving deficient practices, these remarks may be interpreted as respondents attempting to distinguish their scores from those of other practices by casting aspersions on other practices.

This quote from a PCT commissioner below identifies a case of fraud, but as the quote illustrates, many PCTs do not make use of the potential for scrutiny, which is available to them. However, commissioners also complained of a lack of resources and insufficient powers to undertake detailed monitoring and scrutiny.

*"we've spotted fraud..... we had a GP that managed to record 48 blood pressure readings in the space of half an hour. ... red handed.... we're the highest recorders of chronic kidney disease in England because we didn't pay practices where we thought their register sizes were too low..... If we find practices gained points through much higher than average exception reporting, we will dock them.... PCTs can ask practices for blood pressure data for individual patients when it was taken and that's part of the contract ..... This particular GP had 200 patients, 48 recorded on the 21 March 2006 and then when I went into the practice and did the clinical audit trails, they're all done at a lunchtime.... But without that, knowing the days that your blood pressures are done, we would never have known that.... at other PCTs staff may be more geared to monitoring the acute contract .. But my background is, is community pharmacy, GP practice and most of the people I work with we were largely former employees of GPs. ... we can do QOF to death." 414 (PCT Manager, Yr3)*

*"there's a strong reluctance to actually provide that information. Don't have to provide it so we won't. Unless you pay us for that information. And so therefore it's virtually impossible to actually have any monitoring of anything that's not detailed in the contract or detailed in the service specification that's paid for." 420 (PCT Manager, Yr3)*

*"that kind of thing means going into practices and interrogating databases which of course you need to have permission to do. The way forward would be to actually assess a practice in their QOF, bring in a cohort of patients and speak to the patients.. and say what is it you've had this year? did you have your shoes and socks taken off to examine your feet? to me that's the only way you're really going to find out what actually happened." 413 (PCT Manager, Yr3)*

Furthermore, PCT managers reported a focus of energies on developing performance scorecards, which combine data from a range of sources (e.g. QOF, prescribing, referrals), rather than refining their scrutiny of QOF data extracted from practice records, making the detection of abuse less likely.

*"as part of world-class commissioning...we had to show how we were going measure improvement in quality in primary care. ....We've got what we call an "improving standards matrix." .... sort of a balanced scorecard, which is our traffic light and we know where practices are at" 19R2 (PCT Manager, Yr2)*

Our UK/US comparison found that in California an inability to exception report patients led to unintended consequences which including damaging the doctor patient relationship, doctors encouraging unethical behaviour to meet targets and demotivating doctors. In the USA, the financial incentive initiative was much more likely to be seen as externally imposed with the inability to exception report seen as unfairly penalising doctors and conveying to them that they were not trusted. The comments by US doctors are in stark contrast to those of English GPs. Some US doctors also reported bypassing informed consent procedures to meet screening targets for *Chlamydia trachomatis*. In addition to considerations of ethics, choosing not to request informed consent raises questions about the potential damage to doctor-patient relationships when patients who are tested without their knowledge are subsequently found to have a positive test for *C trachomatis*.

*"If I get somebody in who says, "Look, I don't care about my blood pressure, I'm not taking your tablets." Fine it's your life," okay. ....then the hope is that in time, you can work with that relationship to maybe ...get them to see the benefits that they might accrue." 112 (salaried GP, PCTMS, Yr 1) "I tell them to leave. I told someone, you're killing my pay for performance. You are the one that keeps being my outlier. Go join another medical group" USAGP14.*

*Well, everybody who didn't have one, we sent out a form with a letter for Chlamydia screening. And we got 5 people who actually came back and did it, out of I don't know how many hundred. So now, anybody who comes in and is in that age, I just tell them to get a urine. And I just send it in. This is life: I just send it in. If we're going to be rated on it by somebody, that's fine. We do it USAGP5*

### **5.11 How does the development of commissioner incentive structures (e.g. a fixed budget for care) impact on PCP provider behaviours and vice versa? Qualitative analysis**

The PBC policy, which gives indicative budgets to groups of practices, requires them to work together to commission services, but also to redesign existing patterns of care.

A recent study suggested that 'Formal sign-up arrangements enhance both legitimacy and clarity surrounding PBC'<sup>117</sup> and PCTs and PBC lead GPs appeared to be very well aware of the importance of formal sign up. However, this was sometimes a much slower process than PCTs had hoped for. For example, as this PCT PBC lead explained, sign up had been achieved in one consortium within the PCT, but not the other.

*"[The PCT] has been trying to set up PBC consortia for about 18 months now [consortium 1 agreement] was already established before I came into post.... all 19 practices... In the south, we have just sent out an agreement, so we are not sure how many practices as yet until that deadline has been reached.... but it is not about PCT management saying, "Come on, come and do it." It's a case of your colleagues, you should go out to your peers and say, "We think this can make a difference, and this is why." 242 (PCT PBC lead, Yr2)*

Not only did experiences between PCTs, but even within the same PCT, different histories (of working together, of fundholding experience, of relationships with local PCTs and trusts and so on) and different personalities and processes all appeared to influence, the nature and extent of PBC participation.

*"it's a very good thing if it's done properly....there are a number of risks with it, one is that it's called practice based commissioning but actually people just change the names on the doors and it's still the PCT people that do what they always did the way they always did it.... It needs properly resourcing and the general practitioners need the correct training and need the public health contexts, and I'm not sure they've always got it. It needs to be done for the right reasons rather than so that the Department of Health can say 'well it's not us, it's the local GPs that have decided to do that.' And it needs to be quality rather than finance, well some cost effectiveness but quality as well.... it's a very good opportunity to actually challenge some of the daft decisions that have been made about services .... And where things should be happening but aren't happening it's an opportunity for general practice to say 'right well we're going to make it different.' ...it's a really good thing but it needs to be*



*done properly, it's much better than fundholding which I didn't like at all because that was finance driven." 99 (GP Partner, rank and file, yr1)<sup>vi</sup>*

*"Commissioning on the whole, I would say, has probably brought the practices together and improved communication and trust between them." 298 (GP Partner, rank and file, Yr3)*

*"Fundholding was excellent..... we were allowed to order things like CT-scans and things directly or refer to a private practitioner or NHS practitioner for appropriate treatment. ... [an] example was somebody ...who is in pain with a hernia, we could get repaired the next day at the [provider] on a private contract, bought through fundholding, for less money than the NHS cost would have been, and without the patient having to wait and lose work. So that was a sort of ideal thing, the fundholding; we could make plans for individual patients and do what was best for that patient. Practice-based commissioning doesn't do that, practice-based commission relies upon a group of practitioners taking responsibility for the failures of the NHS....I attend the meetings, but I am personally not involved in any of the day-to-day decision making, and I opt out as much as I can, because I honestly don't believe in the process. But, I attend the meetings to be aware of what is going on, and to put my spoke in them" 320 (GP Partner, rank and file, Yr3)*

Some GPs commented that involvement did not fit well with being a GP, since different skills were required in commissioner roles, yet GPs who had these skills might be seen as out of touch with front line working. The argument was also made that involvement required time which took clinicians away from other aspects of work which were also prioritised by government.

*"This is where it doesn't make much sense -- at the same time, the government is constantly saying .... you've got to provide access... continuity of doctor. They measure against all sorts of things and then say, "By the way, can you step back and do a lot of other things?" ....you can't have it both ways. You can't expect to measure me and constantly have access , measure me on availability, personally and then ask me to pop out every so often and not be there, and do these other things. So, there's a bit of a tension there. ... that's slightly illogical." 256 (GP partner and PEC Chair, Yr2)*

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<sup>vi</sup> The term rank and file is used to distinguish these GPs from those taking a leading role in PBC.

*"I'm a GP, I should be spending most of my time seeing patients, not trying to work out how much money we should be spending on this and commissioning someone to provide it. What fundholding was good at doing and what this is good at doing is making sure that both Primary Care and Trusts spend a lot of money on accountancy fees, it does absolutely nothing to improve healthcare." 131 (GP Partner, rank and file, Yr1)*

Some GPs were actively leading the process at local level while others were less involved. The former were GPs who had a history of participation in local PCT initiatives and/or local politics, which appeared to influence their motivation to try out new ideas, address perceived deficiencies in poorly performing practices and engage in activities beyond the consulting room.

*'I actually get very frustrated with practices who are delivering a very poor service . . . And I have no levers to make them change. .... PBC is more interesting than PCT land at the moment. We've asked for a 10 per cent drop in referrals to secondary care. And the initial figures . . . appear to be suggesting that we're going to achieve that'. 309 (PEC member, former Primary Care Group chair and PBC lead, Yr1).*

However, having this background had the potential to alienate some GPs, who saw them as unrepresentative of the profession.

*"there's also a degree of suit culture. They [PBC lead GPs] don't particularly like the day job, so they're busy quite happily off to meetings and trying to drive things. They're not necessarily the best people to be doing it." 281 (GP Partner, rank and file, Yr3)*

PCT reconfiguration, the slow pace of progress and feedback, relative to the effort invested and a lack of understanding of clinical issues on the part of PCTs were all described as hampering progress and draining enthusiasm for PBC. In many cases 1 GP in the practice took a lead role leaving other GPs uncertain about what PBC entailed.

*"I have to go to the meetings on my day off. .... There's so many constraints, be it financial resources in terms of people, the PCT with its reconfiguration. It took a year for them to settle down. Then people started leaving. Now we haven't got a locality manager. We haven't got this or we haven't got that. We identify this problem. What can we do with it? Nothing. Why have we spent all of this time in order to find the problem? Ignore it. Just think, well, it's wrong to ignore it. You can't. It's*

*trying to unravel all of that and then work out what it actually should be for". 296 (GP Partner, PBC lead, Yr3)*

*"I don't really understand it and I can't be bothered with it. [laughter] ..what I've heard of it is that there's been lots of meetings that have taken up lots of time, taking GPs away from their patients and nothing has come out of it. So, it needs some redirecting if it's going to work at all. We did a bit of commissioning when we were fundholding, which was 12 years ago. I suppose that was a different system again. And, that worked quite well because decisions were only made by us in the practice and we knew that we'd have a direct benefit from it, so there was a financial incentive". 295 (GP Partner, rank and file, Yr3)*

*"I can honestly say, despite having lots and lots of meetings, our partners looking ... on the ground and not noticing one benefit from practice based commissioning - extremely disappointing". 341 (GP Partner, rank and file, Yr3)*

*"I know for a fact that in those in which they've got executives the vast majority of practices haven't got a clue what the executive is doing in their name. Even where you've got every practice has got a seat on the Board, the individuals might know what's going on but again I'm not convinced that things penetrate down to the practices, so the theory sounds great, the, the reality is, I'm a GP, I should be spending most of my time seeing patients, not trying to work out how much money we should be spending on this and commissioning, someone to provide it." 131 (GP Partner, rank and file, Yr1)*

*"You spend an awful lot of time and energy to effect small change, but we've actually done quite a lot of good on it locally. We've developed orthopedic referral guidelines. We developed new primary care based treatment and management of chronic obstructive airways disease. We've got local telemicroscopy services up and running. We've got technetium coagulation into general practice. We've taken acute physiotherapy into target referral. We're taking cognitive behaviour therapy into general practices pilots. We're doing an awful lot, taking things into general practice. Practice-based commissioning is about developing primary care, so that people have their treatment, their management of their condition, done in primary care rather than the hospital services. It's cheaper, it's more convenient for the patients, and quite honestly, the quality that*

*we give is better than a hospital's where they're often overwhelmed with people with conditions that really are beneath them, in a sense.... There is tension there because they have a different agenda. They [PCTs] often do not understand the clinical needs of patients, they're driven by central dictates and targets, which quite honestly..... have taken an awful lot of energy and time away." 333 (GP Partner, PBC lead, Yr3)*

In some cases, PBC appeared to be progressing at a faster pace and PBC consortia were making arrangements intended to speed up the pace of change.

*"we had PBC savings last year..... it's being reinvested ...And looking at other services will help us increase the savings. ....sometimes there are barriers for various reasons, and if practice based commissioning wants to do something.... using a separate legal entity ....gives you a bit of independence to do it. Freedom. And it removes certain barriers... you can do things quicker. Nowadays, there is a certain level of budget beyond which it has to go through various hoops, whereas if you're a body of that stage, you could decide this is a figure beyond which we don't have to go for approval.... you could just say to this body: "Here's X amount of money, do what you will with it." and the PBC has responsibility for that amount of money.... you will be allowed to go ahead and do it.... We don't have to go somewhere else for approval." 258 (GP partner, PBC lead, Yr2)*

The policy potentially facilitates expansion of the market and as we outline above, involves scrutiny of GP referrals to assess appropriateness. PBC also caused concern for some GPs who saw it as threatening relationships with secondary care and potentially undermining public provision of services.

*"I'm a bit concerned about it cos it's causing a divide between primary care and secondary care, as for who's gonna provide what services... it's an unhealthy competition, and it also opens the window for the private providers to take over" 102 (GP partner, rank and file, Yr1).*

## **5.12 In what ways do policies to increase choice and competition impact on PCP behaviours and attitudes? Qualitative analysis**

The concerns about PBC damaging relationships with secondary care may be seen as reflecting a taken-for-granted view of both GPs and hospital consultants as being part of the public sphere. GPs were

almost wholly negative on the subject of the Choose and Book system which was introduced to facilitate patient choice.

*"Oh, it's not working now." Thank you very much. Two days down the line. "Could you just try again?" No, actually. I have a full surgery. ... It's just ridiculous. That's one thing I'm really cross about at the minute. 103R2 (GP Partner, Yr3)*

*"Choose and Book has made it worse because we can no longer refer to an individual consultant. So, 10 years ago, I'd always refer to a specific consultant who I knew. I'd be able to pick the phone up and speak to them. Sometimes you could avoid a referral by doing that. And now, because of Choose and Book, we have to put a "dear colleague" letter, and it goes to some referral center. And the patient may or may not be able to make themselves an appointment...And you don't know the consultant...So, primary-secondary interface, the relationships are very, very poor at the moment." 232 (GP Partner, Yr2)*

The view of private provision of primary medical care as antithetical to good patient care, was expressed by the vast majority of GPs. GPs were opposed to new models of primary care based on provision by private companies, which they saw were focused on profit rather than patient care. Whilst a rejection of private sector values might be interpreted as a self-interested response from GP partners, even salaried GPs who had no financial stake in the partnership which employed them, expressed strong objections to policies encouraging private companies to enter the field. Furthermore, the way that GPs, both salaried and partners, defined themselves in relation to the private sector suggested that it had not occurred to them that their organisation was a business partnership rather than an NHS body.

*"the practices I've worked in. . . . they're there to try and improve the health of people who are at the bottom of sort of society's access to care. . . . money is used to pay for more nurses, more staff, better services, it's not used to make people particularly wealthy 99 (salaried GP, Yr1).*

*"I wouldn't be working if that was the model. . . . We've got a Business Manager here who's absolutely fantastic and I would do anything that she thought was better and I know her integrity . . . I would not be interested in working for a private company." 103 (salaried Yr1)*

*"We've got them on a patch. The word, the anecdotal word, is that the services are not so good." 292 (PM, Yr 3)*

*"I guess my concern about the private models is I don't see enough team-working safeguards within them. Functionality as a team is so important. I haven't seen any private provider model that really emphasises that. Instead, it's process-driven rather than collective team-working driven." 297 (GP Partner, Yr3)*

*"it's the wrong thing to do. If there is need for more GPs then what should be done is training more GPs and encouraging GPs to go in those particular areas. But bringing in private providers ... Why do you think the private providers are coming in? It's profit geared. ...How are they going to make their profit? ...You can say they will make their services more efficient. I don't believe all the practices, are inefficient. It's just a question of cutting and cutting" 398 (Salaried GP, Yr3)*

*"I'm sceptical as to what they're in it for. And if it's an organisation which is set up for financial profit that goes against the grain of doing what you can to treat patients with whatever skills you have. And not thinking about, "I really need to do this because we get more money and that's more profit." .... a PCTMS practice had gone out to tender for one of these organisations. ....I know the guy who took the post on. He hates it. Because they've just got different priorities. I've got my priorities for the patients, and if I come in someone knocks me over, "You took 12 minutes for that patient, you should have only had 10. If you're going to take a long time, you'll have to see more, because we need to have so many patients seen a day." So it's a lot more performance-based, really. He feels as though people are watching all the time. .... he's not an independent practitioner any longer. I think that's the way he feels." 400 (Salaried GP, Yr3)*

Many GPs expressed vehement opposition to the proposals contained in the Equitable Access to Primary Medical Care programme to provide at least 100 new general practices in the 25% of PCTs with the poorest provision, and one new GP-led health centre in each PCT in easily accessible locations. Since these were in response to concerns raised in the NHS Next Stage Review Interim Report carried out by Lord Darzi, many people referred to them as Darzi practices. As with other comments reported in this section, opposition also appeared to reflect wider concerns about policy makers being out of touch with general medical practice and frustration about having no voice in the process.

*"He knows nothing about general practice. But you're just one of the drone workers there." 208 (GP Partner, Yr2)*

*"these Darzi centres. It may apply in London, but does not apply around the rest of England, so why impose them?" 283 (GP Partner, Yr2)*

*"I think the eventual plan, personally, is to get rid of general practice and replace it with Darzi Centre Polyclinic private health providers, because we're not seen as a valued service. They don't understand what it is that we do and they think that secondary care will run perfectly all right without primary care there to stop it falling off the tracks.... not primary care as you know it now. Primary care as provided by pharmacists, nurse practitioners, nurses, Uncle Tom Cobley, voluntary, anybody other than doctors." 287 (GP Partner, Yr2)*

However, there were some clinicians who disagreed.

*"Go for it I say.... if it means that people are going to access services we've got to get our heads round the fact that people want a choice. And if they want to go to supermarkets for their flu jab, let them do it, that's fine. Because, it's not always easy to get to a GP surgery at the times that they want it" 321 (Practice Nurse, Yr3)*

*"The advantage is for access for patients and more patient choice, if they can't present on the day and they can be seen quicker probably. But for continuity of care and relationship with your, long-term relationship with your patient, you lose kind of family doctor relationship..... it's good for people who are working, who want to be seen so quickly, and don't mind who they see; it's a good idea, and it will take the pressure off the hospital, and the community as well." 322 (GP Partner, Yr3)*

Not everybody viewed the Darzi practices as handing over general medical practice to the private sector. GP respondents were sometimes involved in bidding for APMS contracts, either out of enthusiasm or fear of being left behind, and these experiences influenced their attitudes to reforms.

*"There's great controversy about the Darzi implementation and people are saying, "We don't want polyclinics." In fact, I'm quite fond of the environment where we co habit with a number of other clinicians offering a range of specialties because that makes for a better continuity of care. ... we would love to work in a Darzi centre. ... our district nurses are in a clinic which is about a kilometre away, and we might see them once a month... it's not quite the same as having someone down the corridor*

*that you can actually have a quick word with. I do believe that you can facilitate teamwork by having people geographically very close to each other, and also providing an intellectual environment where people are encouraged to cooperate. We do, in fact, now have the new centre which is only about two kilometres away. It is the first practice in [city] which is being established under APMS. This went out to tender about 18 months ago and is run by a private sector company who employ a G.P. and practice nurses, and a manager to actually run the centre. This is something that we've not had before. ... I did call in to see them a couple of weeks ago. They managed to attract something like 250 patients in the first three weeks, which is pretty good going, really, because our experience has been that patients are quite reluctant to move."* 240 (GP Partner, Yr 2)

*"[names town] is all in a consortium, and basically they're all sort of moving forward along these lines. ....out of it is the [names organisation], which is a sort of private consortium to try and build up our own Darzi centre..... I mean, that aspect is separating the [names town] practices, because people have got strong views over that.... two of the practices are not involved in it.... presumably, if you don't stick with the majority, it sort of potentially can leave that practice out on its own on a bit of a limb. "* 287 (GP Partner, Yr 3 successful APMS bid)

*"we've set up a not for profit company..... at great expense, we've set that up, and we put in a bid. There's been a lot of upset about the bid process because you had to put in a bid to prove that you were good enough to present a bid. Which was a 60 page document. And then you have to put in a bid to provide the service, which was a lot of work. And not something that most practices could do. And there was a week to do it. .... so we've been interviewed for that about two months ago and they've [PCT] been stalling every since. And supposedly there is an announcement of the preferred provider next week. And the gossip on the grapevine is that [private limited company] have got it.... So I don't think it's very fair, the whole process."* 309 (GP Partner, Yr 3 unsuccessful APMS bid)

GPs who held PCT or SHA roles were more likely to support expansion of the market in primary care than their rank-and-file counterparts.

*"there is more fear than is justifiable in the system. ... there are people that will go around telling you that the end of the world is nigh and that the whole of general practice is going to get taken over.....these are just tiny, tiny developments ... So, if you*



*see the APMS independent providers as that same sort of grit in the oyster, well, I think it will sharpen up most practices attitude towards not so much competition but quality of service. I could see that would encourage some changed behaviour" 231 (GP partner and SHA role, Yr2)*

*"Historically, we've always spent too much time on the tail enders, and that has often disillusioned those in the middle who are working hard and think, "How come if I work hard I get no support and the guy who fails gets all the extra support?" It's perverse. So they say, "Well, I'm not going to kill myself anymore or go an extra mile because if I don't, they'll come along in five years and give me support anyway." It's been a back to front. So this idea of giving less support and giving competition, makes sense to me. Any good practice is capable of being able to compete as long as it's an even playing field and they're not competing against someone who's got a big front loaded situation. There are others who would disagree vehemently with me. [laughs] I've obviously been here too long." 256 (GP partner and PEC Chair)*

Perhaps not surprisingly PCT managers welcomed APMS arrangements as providing them with additional levers, although they described their actions as still heavily influenced by top down directives.

*"it's getting there. There's still quite a lot around the new contract, which is directed from the Department, which gives you very little flexibility around how you then choose to commission that. It's weird some of the enhanced services that they decide we've got to commission for everybody, whether you want to or not, or whether you feel they're appropriate or necessary for your population so you lose that local flexibility with those. it's also weird some of the more recent stuff that came out of Lord Darzi's report and where we were told we had to commission a new health centre and a new GP practice. Neither of which is what we particularly wanted in [names city]. They don't fit with the new NHS for [names city] strategy so we've had to do some working around to get them to fit that strategy... the APMS contract, you're not so struck as to what they actually have to provide. ... You could actually say, "Actually we don't want you to do QOF. We don't want you to do those enhanced services. We want you just to concentrate on this particular age range." Or this particular group of the population. So you've got a lot more flexibility with an APMS contract and of course you've got the option of getting out quite easily." 19R2 (PCT Manager, Yr 2)*

Concerns about PBC undermining NHS services in secondary care can be seen as part of a public sector ethos, which supports collaboration and integration between primary and secondary care services. Although this view was widespread, however it was not dominant. For some GPs, PBC was starting to change their assumptions about the importance of public sector provision.

*"the lead person for dermatology approached the local hospital and said . . . we'd like to have a local clinic involving GPs with a special interest and education for patients and education for doctors. And the local hospitals said, 'Oh we can't do that, we're doing a lovely service already. Get lost'. . . . So then they approached a private provider who said, 'Yes, fine'. And then the local hospital suddenly said, 'Oh we can do everything that the private providers say they can do' . . . So we GPs give the patients two choices, either the private or the, well it's all NHS, but the private provider or the NHS provider . . . So the patients are going to choose and that'll be very interesting. . . . I've got mixed feelings about the whole contracting out, but that was a supreme example of how something is totally impossible and then suddenly you change the stakes and it becomes possible and it's done" 111 (salaried GP, Yr1).*

As the quote above suggests, for some GPs, participation in PBC is starting to change their taken-for-granted assumptions about competition, at least insofar as it involves the secondary care sector.

In addition to espousing a commitment to the public sector and distancing themselves from private provision, GP comments described how this translated into practice, creating benefits for patients. When GPs talked about their day-to-day work, they gave examples of ways in which they helped local people and communities. Most emphasised continuity, commitment and relationships with whole families, going beyond clinical problems as part of their public service role.

*"people who are working within that [private sector] system will work to the contract that they are given . . . you don't get the commitment . . . As a GP who has been working in the same practice for, 19, almost 20 years . . . I'm already now coming through to my next generation, of people in the families that, that I've dealt with . . . today the daughter of someone who's just potentially been diagnosed with cancer . . . is in, concerned about what's happening to her mother and father. This is not template driven care, this is holistic care, looking at the family, seeing what, needs to be done. Well I spoke to . . . the daughter, I managed to speak to her father, I've managed to*

*ensure that something is put in place, for her mum. That's what as far as I'm concerned that General Practice is about" 131 (GP partner, Yr1).*

Many GPs appeared to reconcile their public service ethos with resource constraints by setting boundaries which defined acceptable levels of service and patient expectations. Amongst some GPs there was a clear assumption that patients are not the best judge of their own interests and that since public services are a shared resource, GPs are justified in making decisions which may not accord with patient wishes. The view that patients were becoming more demanding was expressed repeatedly by GPs and the growth of consumerist medicine did not appear to be a source of motivation for most respondents.

*"I didn't have a particularly high referral anyway, so I'm not sure it makes very much difference to me. . . . But it leads to very interesting debate about what you should do. Which is healthy. . . . the idea of practices saying no to patients, I think we've become little bit lazy, in that if a patient said 'I want to see a consultant.' You just say 'Okay'. But now we're gonna say 'Well tough. You can go private if you want to go and see a consultant'" 309 (GP partner, Yr1).*

*"I want to see you and I want to see you now. You get all the time... Despite the fact that you might have a fully booked surgery... They want to be seen at 10 past five on Tuesday the 22nd..... the patient starts to undermine you with it. "You don't need antibiotics! I want them! You don't need them!" 302 (GP partner, Yr3)*

*"patients are very demanding. And they're taught to be very demanding .....everybody should have the health service, exactly what they want at the click of their own fingers.....what I find worst about the job is dealing with the expectations of patients and what they expect from the NHS, which apparently is amazing. Because they're told it is on the news, it's great. And you can go see your GP and do whatever you want ..... everything so quickly, of course the reality's not like that. I've spent half my time trying to disabuse people of what they're expecting." 366 (GP partner, Yr3)*

These attitudes might be seen as largely pre-reflective, since GPs made little attempt to give what might be thought of as 'politically correct' responses about patient empowerment and support for consumerist policies. Furthermore, these attitudes are likely to

structure GPs' engagements with patients and colleagues and in the practice of general practice GPs are likely to reproduce these assumptions. One interpretation is that since being a GP involves coping with whatever is thrown at one, through the practice of general practice, GPs come to define what counts as appropriate care and what represents appropriate use of collective scarce resources more generally. The remarks above suggest that these GPs see their role as providing care that is effective, but not necessarily responsive, with the promotion of a consumerist orientation in the context of a collective scarce NHS resource seen as questionable.

*"People around here don't demand enough. They don't. They really don't. They should demand more really. I'd love to make it more consumer-friendly. That's why the staff training is based around that. Bend over backwards to accommodate them. If they want to be seen on a Tuesday from 5:00 to 8:00, do your best. Most of us will try to fit in with what the patient wants. If that's the only time they can come because of whatever they've got to do, then we should really try very hard. I'd love to have them come in like they do in the private hospitals, and have them come in and offer them a coffee." 227 (GP Social enterprise, Yr 2)*

*"So sometimes when people say patients are too demanding, it's that actually they're asking for something clinicians don't want to give.....it may actually be that the clinicians need to look at what they're providing. Because in the past, patients and communities have basically been told by clinicians, "Right, this is what we're going to do. And this is when I'm here. And this is when I'll see you. And I'm quite happy to see you in those hours. But don't bother calling me. And don't, whatever." 228 (GP Social enterprise, Yr 2)*

The comments above both came from GPs who had established a social enterprise in an area of high deprivation. But they are in stark contrast to comments made by the vast majority of GPs about patients becoming too demanding.

At the same time, these principles become internalised, reinforced and reproduced in GPs' day-to-day interactions with patients. Of course, as with other remarks, the fact that GPs' views of themselves as defining the boundaries of public service, as guardians of scarce public resources appear to be taken for granted, does not mean that self-interest is not involved here. What is reproduced is an assent to the legitimacy of existing power relations that are secured by these relations.

## 5.13 Conclusions

### 5.13.1 Summary of findings in the context of other research

Our data suggest that the financial incentives contributed to high levels of attainment of quality targets and a reduction over time, in the variation in care quality in general medical practice. This assumes that recorded levels of performance reflect improvements in care, as opposed to merely improved data recording. It also assumes that recorded data reflect a true record of activities. One of the worrying findings from our study is the report of data falsification in one practice. We do not know the extent of such events, but the fact that PCTs may not be monitoring QOF in a sufficiently detailed manner as suggested by one of our commissioners, gives some cause for concern.

Compared with our analysis, another time-series analysis of the quality of primary care in England also suggests that QOF has had an impact on behaviour<sup>118</sup>, but it identifies a more modest impact compared with our findings. That study compared attainment levels in 2001 with 2006 and reported that although there have been improvements since QOF 'there is good evidence that the changes predated the QOF give the increase observed since 2001'.

Another analysis of diabetes care<sup>119</sup> found that improvements in care were discernible from 2002 to 2007, but that this did not seem to be a direct result of QOF. After the introduction of QOF the trends appear to be attenuated particularly in people with diabetes who did not meet the case definition of the QOF framework. The finding in that study that many patients in whom care may be suboptimal are not captured in QOF owing to the current diagnostic case definition highlights potential unintended consequences which may, the authors conclude, lead to reduced levels of care for some groups of patients.

Our finding of a reduction in variation in care is consistent with other research which finds that improvements in achievement in blood pressure monitoring and control have been accompanied by the near disappearance of the achievement gap between least and most deprived areas<sup>120</sup> and that previously identified socio-economic variations in diabetes care have been largely eliminated<sup>121</sup>. However this latter research shows that gender inequality persists and achievement of intermediate outcome control targets for diabetes is less impressive.

Improvements in process and outcomes (as measured by QOF diabetes targets) for diabetes patients have been highlighted in a number of studies<sup>122, 123</sup>. Although the evidence of improvement of care was available before the introduction of QOF so it is not possible to ascertain whether benefits observed were caused by QOF.

Furthermore, although improvements in care have been observed across most ethnic groups, there is evidence that the magnitude of improvement, differs between ethnic groups<sup>123</sup>, which may widen existing health inequalities.

There is a danger that practices may neglect some aspects of care due to a focus on meeting QOF targets. Much of the criticism of QOF relates to the potential loss of the caring aspects of the general practitioner's work<sup>124</sup>. Our qualitative data highlighted concerns that the patient's agenda may be under threat in consultations due to the requirement to meet QOF targets. This resonates with other studies<sup>125</sup> although our quantitative findings of no overall change in patient assessments in their experience of communication with their usual GP resonate with our qualitative data, which found high levels of satisfaction amongst patients. This divergence of opinion between primary care professionals and patients with regard to some aspects of QOF resonates with Dowrick et al.'s study of depression screening in primary care as part of the QOF regime<sup>126</sup>. This study found that whereas GPs were concerned and sceptical about the motives behind the introduction of depression screening and its validity, patients were more positive about screening questionnaires, 'seeing them as an efficient and structured supplement to medical judgment and as evidence that general practitioners were taking their problems seriously through a full assessment'.

Our ITS suggested that the quality of those aspects of care that were not associated with an incentive had declined for patients with asthma or heart disease between 2005 and 2007. Trends in diabetes care did not differ at any time according to whether the care was linked to incentives. Steel et al.'s study<sup>127</sup> using data on 1156 patients found that QOF financial incentives were associated with quality improvement for incentivised and non incentivised conditions where the latter were linked to incentivised conditions, although their comparison does not extend beyond 2005. For other non-incentivised conditions, quality did not appear to improve.

Sutton and colleagues<sup>128</sup> using data from 315 general practices restricted their focus to rates of recording of blood pressure, smoking status, cholesterol, body mass index and alcohol consumption. They found that the effect on incentivised factors was substantially larger in QOF target patient groups (+19.9 percentage points) than on untargeted groups (+5.3 percentage points). There was no obvious evidence of effort diversion but there was evidence of substantial positive spillovers (+10.9 percentage points) in terms of improved recording of unincentivised activities.

We observed generally low rates of exception reporting for most practices across most indicators. This, coupled with the shallow socio-economic gradient in exception reporting, may be partly attributable to historically low maximum thresholds. More challenging maximum thresholds may lead to the development of

steeper socio-economic gradients in exception reporting. Our comparison of achievements before and after changes to QOF thresholds in 2006/7 found that raising thresholds from 50 to 60% was associated with an increase in exception reporting for practices with achievement rates of between 50 and 60% in 2005/06. Gravelle and colleagues<sup>129</sup> found evidence of gaming, with exceptions varying with practice (as opposed to solely patient) characteristics (e.g. number of GPs per patient, extent of potential competition for patients from other practices, previously a fundholding practice)<sup>129</sup>.

We found that GPs and nurses described undertaking tasks which they viewed as of dubious value, in order to meet QOF targets, which resonates with findings from other studies<sup>125</sup>. However, in a context where ongoing monitoring (rather than trusting 'autonomous professionals') was commonplace and appeared to be increasingly accepted as legitimate, this is perhaps understandable. We also found evidence in our study of practices becoming increasingly hierarchical in nature and hierarchical relationships were also developing between rank and file and PBC GPs. This resonates with the findings of McDonald et al.<sup>130</sup> who report the emergence of new strata or elites, with groups of doctors involved in surveillance of others and action to improve compliance in deficient individuals and organisations. Our findings resonate with the observations of the authors in terms of identifying increasing acceptance of the legitimacy of professional scrutiny and accountability.

However, in common with Lester and colleagues<sup>131</sup> we identified tensions arising with respect to perceived inequities in relation to workload and rewards. Salaried GPs and nurses expressed concerns about the distribution of additional income from QOF and its relationship to effort.

## 6 Community pharmacy – research findings

### 6.1 Introduction

We first present details of our participants. This is followed by discussion of our findings in terms of the tracer issues we outlined in section 3.

The total number of participants interviewed in community pharmacy settings was 70 (see table 12 for characteristics of participants). Table 13 shows the number of interviews in this sector by year. Of these a small number of participants were interviewed twice (see Appendix 6).

**Table 12. Total number of community pharmacists by type †**

Pharmacists	Total number	Years since qualified mean (plus range)	Gender (% F)	PCTs
Owners	13	12 (8 to 36)	15.4	5
Salaried, multiples	37	16 ( 2 to 38)	45.9	8
Salaried, independents	3	15.7 (10 to 24)	66.7	2
Locums	15	24.1 (1 to 43)	46.7	N/A*
Practice	2	22 (14 to 30)	100	2
TOTAL	70	18.8 (1 to 43)	42.9	8

\* Locums can and do work across multiple PCTs.

† 39 interviews face to face and 31 telephone



**Table 13. Community Pharmacy interviews conducted per study year**

	Year 1	Year 2	Year 3
Owners	6	6	1
Salaried, multiples	4	13	20
Salaried, independents	0	3	0
Locums	2	0	13
Practice	1	1	0
TOTAL	13	23	34

## **6.2 Does paying PCPs to do something mean that they do (more of) it?**

### **6.2.1 Qualitative analysis**

Pharmacists generally supported the spirit of recent reforms, although since most were not owners, their willingness to take on activities was expressed in terms of the opportunities it offered for job enrichment, rather than financial reward.

*"the image of pharmacists has got to change because just being a pill counter and a dispenser is not going to cut it in the future, and I might well end up without a profession, full stop. Well, lots of people say, "That'll never happen." But, I think it's essential. You go to university and do a master's degree, and you've got all this clinical knowledge, and you come out and you're selling Pampers and counting.... sachets all day. And then someone asks you a question six months down the line, and you forgot the answer. Because you haven't been using it. Someone asked me a question today, or yesterday, and I was just like, "God almighty, I should know the answer to that." And I'm in a busy pharmacy where I'm using my clinical knowledge quite a lot. If I had any. [laughs] But yeah, I think, as a whole, pharmacists have got to start getting involved in these other new services"*  
386 (salaried multiple Yr3)

*"it just fits me perfectly, I don't obviously get involved with all the sort of like political sides of that, and the financial sides I have no need to, so maybe if I was an independent contractor,*

*it might not sit as well, but for me doing the job I do, it's perfect because it gives me all these different roles.... because of the new contracts, I run two different clinics from here." 115 (salaried multiple Yr1)*

In many respects the thrust of the contract in terms of encouraging pharmacists to make better use of their skills was welcomed, which might suggest that they were intrinsically motivated to perform. The increased paperwork associated with the contract was not welcomed, although pharmacists could understand the reasons behind at least some aspects of the increased documentation requirements.

*"If a dispenser took three or four mistakes in a day, I would just say, "You're having a bad day today, aren't you?" and they'd get the message. So, as I said, it was just a lot of paperwork started flowing through and a lot of systems, which, at the time, I thought, "Why the hell are we doing this?" But as you move around, you start appreciating the purpose of things. I mean, obviously, incident reports for having to put up more fundamental errors. Yeah, the paper chain must be established, and the reporting chain must be established. But there was a bit of paperwork, which I just thought, "Why?" And signposting sheets and advice sheets. It got to the stage where you had about 10 sheets of paper lined along the dispensary bench which you were taking. "I spoke to Mrs. Smith about her tablets, take information on medication." "I spoke to Mrs. Jones about going off to this herbalist for a bit of advice, signposting." You sometimes look at these things and you think this is a collection of information for the sake of information, as opposed to a useful purpose. And when you find a useful purpose for this information, then what's the point?" 391 (locum, Yr 3)*

With regard to the specific elements of the contract, however, the picture was more mixed.

**Repeat dispensing** allows patients on long-term medication to obtain their medication directly from the pharmacist of their choice rather than going back to their GP to obtain a prescription for each instalment first. In the year to March 2008 79 PCTs had an activity level of less than 1% of all items being supplied on repeat forms. This had dropped to 60 PCTs for the year to March 2009. 22 PCTs, (those which actively promoted the service) accounted for 50% of items issued via repeat dispensing for the year to March 2009<sup>48</sup>.

Although pharmacy contractors who submit prescriptions for payment receive a repeat dispensing payment on a monthly basis, payments are not related to the volume of prescriptions dispensed. However, pharmacy contractors have other incentives for increasing repeat

dispensing volumes. These include the guaranteed income from dispensing prescriptions for these patients over time.

Pharmacists supported repeat dispensing, but many cited low uptake by GP practices as a factor hampering progress. The evaluation of the national repeat dispensing pilot identified the quality of individual relationships between GPs and community pharmacists as a key factor influencing progress. Proximity to practices appeared to facilitate good working relationships. However, our pharmacists also highlighted issues concerning the lack of systematic and simple processes within practices for facilitating repeat dispensing.

*"We have encouraged it. It just hasn't happened.... Zero... They just don't seem to be interested. I think, to be absolutely fair to them, they don't fully understand it... initially there was confusion on the selection of patients, and we sent a number of lists over to them, saying, "We would suggest these patients, how about getting them on?" and so on. Nothing happened. Then the practice pharmacist got involved, who to be quite honest, we get on quite well with. There's no problem there. For various reasons he whittled the lists down, and it stopped at that point. Nothing seemed to happen. ... a problem at their end seemed to be that a lot of the staff didn't understand how they could be generated. Only the practice manager could do them. Whether it was through complexity at their end, lack of understanding, lack of interest, I don't know, but it just seemed to flounder." 9 (Owner, Yr1)*

*"we got that set up quite early, and because we were literally dealing with one surgery, really, it was very easy. .. And we could nip over and say, "You've changed this. You need to scrap this. Can you give us a new..?" [laughs] But it was very easy to do, so yes." 323 (salaried multiple Yr3)*

*"The surgery that I'm at is the surgery that does most of it, actually, and we don't do it to any great extent. There's been quite a lot of resistance from GPs to do it. I don't think they're convinced of the benefits of it, really. I badger them. I think, from a surgery's perspective, the easiest way to do it is for the nurses to actually instigate it after they've done their sort of routine checkups. So if they do the CHD reviews, which they do once a year, and at that point it's decided that the patient's stable. Then the nurse can say to them, "Are you interested in repeat dispensing?" And the nurses tend to do that for a week and then forget" 352 (salaried multiple Yr3)*

In terms of changes over time, as the above quotes illustrate, there was no evidence that things were improving in this area. Indeed, pharmacists sometimes expressed frustration that having invested time and effort in making some progress, this tended to tail off as practice staff failed to maintain their input into the process.

**MURs:** here the situation with regard to payment is rather different. Pharmacy contractors receive a payment for each MUR undertaken. Salaried pharmacists may receive some of this in the form of a bonus, or they may not. Most pharmacists welcomed the intention underpinning the new contract to encourage a move away from dispensing to taking on other roles. But all pharmacists also described their working environment as very busy and driven to a large extent by the need to maintain dispensing volumes. With regard to willingness and ability to focus on MURs, the range of contexts in which pharmacists work and related incentive structures they face was reflected in the responses of participants. Locums generally reported little desire or pressure to conduct MURs, owners described struggling to conduct MURs whilst maintaining dispensing income and salaried pharmacists experienced varying degrees of pressure and motivation to conduct MURs.

*"MURs ....I'm protected in a way because I'm just there for the day or there for the week" 11 (locum)*

*"it's a challenge....you get your weekly target. That's what we're trying to get: two a day." 22 (salaried, multiple)*

*"there's no incentive for the individual. The incentive is purely towards the company." 45 (salaried, multiple)*

*"Squeezing them in is always a difficult one... it's putting ...work onto us." 34 (owner)*

Many pharmacists described MUR activities involving advice-giving and using their knowledge of drug interactions as 'just doing what we have always done'. This being the case, some respondents expressed unease about financial incentives generally and some felt uncomfortable asking patients to sign MUR forms which pharmacies submit to be paid for this activity.

*"every day I am doing a medication review on several patients, because they come in with a query or we query something about their medication ...when you're chatting about this, you're thinking, "Well, yes, I could be doing an MUR", but you get them to sign a form.. "What's this for?" This is for 28 pounds. It doesn't look good.. ... getting the customer to sign an MUR form*

*.. and the customer, knowing that I'm going to get some payment for that" 66 (owner yr1)*

*"we shouldn't have incentives to do this, that or the other. We should be doing for the patients benefit, right? However many MURs you do should be however many patients needs them. Not you've got to do 400 because that's the target and we want the maximum money out of the government." 156 (salaried, multiple yr 2)*

*"We should be comfortably financially supported so we can do the best job we can, instead of having to almost creep - and sometimes you'd almost be doing things that were totally unnecessary." 153 (salaried, independent yr1)*

The visible link between the payment and the service may transform patient perceptions of the service provided from something motivated by having the patient's interests at heart, to a financially driven intervention. Traditionally the pharmacist's advice-giving role involves responding to patient concerns and queries. However, the introduction of MURs increases the requirement for pharmacists to be proactive, rather than reactive, in this role. Despite advertising and posters, pharmacists reported having to approach customers to try to persuade them to take advantage of the MUR service.

*"a lot of people, they don't want one... you say, "The NHS will just like us to run through your medication. It doesn't take long." "I've been on my medicine for years. I won't need it." So you've got that. There's no pull. You need a pull from the customers" 157 (salaried, multiple yr 2)*

The nature of the relationships between pharmacists and GP practices appeared to be an important motivating factor with regard to attitudes to MURs. However, more often than not, these relationships were not described in glowing terms.

*"and did the doctor change anything? because he hasn't, when you see the next script come in. Because that doesn't really move anybody forward. It makes it look as if they're not listening to what the pharmacists are trying to impose, so that doesn't work very well" 355 (locum, Yr3)*

*"I've treated people where I know there is going to be some kind of benefit, not just to get my figures up. I am kind of reluctant to do it just for the sake of doing it, because the*

*chances are they will learn what you did when you send them to a doctor, as well as you never get any feedback from doing it. So you think, what's the point?" 388 (salaried, multiple yr3)*

*"So the feedback on that was really positive. The GP reviewed it... That practice is very good at feeding back. Some of the others aren't so good. The problem I've got with my branch is we're nowhere near a GP surgery so a lot of my patients are quite widespread. I deal with at least eight main surgeries. That is one issue. If you were attached to a surgery or had a close relationship, then you might get better feedback" 393 (salaried, multiple yr3)*

*"we have a very good relationship and he refers patients to me, I refer patients to him.... and I have a practice meeting with him every week.....the company I am working for provides me with a worker on Thursday morning, extra, so that I can have my practice meetings. It's all structured and by appointment. Because we target only the doctor's patients from the next-door surgery, all our MURs are recommendations... I actually take all the MURs with me to the practice meeting, and then we go through all the MURs. Because dealing with the MURs, I do a lot of additional work for the GP, providing a lot of additional information for his QOFs and that. So then, he benefits from that" (239 salaried, multiple, Yr2)*

Amongst the GPs in our study, MURs were, by and large, viewed as a waste of time and money.

*"a complete waste of money, to be honest.... It's gone the wrong way around. You'll save more money by having a pharmacist coming here a couple of times a week, coming through this and contacting patients and seeing patients, rather than the other way around. The other way around, they're just picking off the easy ones like thyroid ones, they'll do that. It's just a complete waste of money there." 208 (GP Partner, yr2)*

*"If you ask any of my colleagues, when they get these medication reviews they bin them. We do those medication reviews in any case, as part of our QOF.... It all depends on the enthusiasm of the local pharmacies and whether they want to earn a bit of dosh, I suppose....the patients really rather resent it because they see the pharmacies as somewhere they get their medicine. They do ask their advice on certain things, but a lot of the advice that pharmacists give is not good. They don't know*

*the patients and they haven't got access to the records." 333 (GP Partner, yr3)*

Pharmacists also complained that the reduction in reimbursement for drugs (particularly category M, which account for 86 of all generic drugs reimbursed) put pressure on them to increase dispensing volumes at the same as they were being asked to take on new duties, in order to maintain income. *"The category M and what have you has cut the profit line down and all you're doing is working harder for less money".226R2 (owner, Yr3).*

*"You're having to do more with the same amount of staff or the same amount of profit, if you look at it from a company's point of view. There's more stuff that you can get involved in. It's more varied and it's interesting, but it can be difficult at times because you've still got the jobs that you had previously, and you've got more jobs now, and they're cutting back on staff everywhere, especially with that Category M. Everybody, most pharmacies, I know they're cutting back on the hours, but the workload is still the same".233 (salaried, multiple, Yr2)*

*"profits are hit right, left and centre.... they said they were going to release 80 million on category M and then they clawed back 87 million, so you're at a net loss of 7 million in the profession, or pharmacy as a whole anyway.... people just getting hammered from all sides there" 244R2 (salaried, multiple, Yr3)*

### 6.2.3 Quantitative analysis – uptake of new services

In terms of the relationship between payment and response, MUR volumes have been increasing over time (see Table 14). Whilst the total number of MURs undertaken has been rising, there was a tendency to focus on this activity during the last few months of the target year. This suggests that support for MURs may not be entirely due to the opportunities for role extension.

**Table 14. Monthly MUR activity**

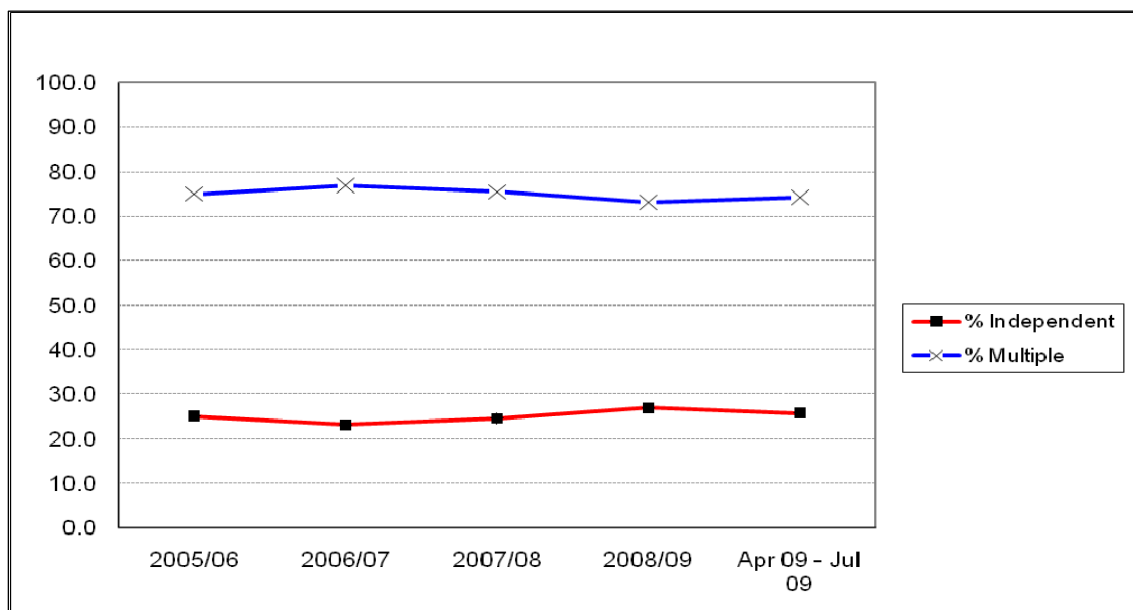
	2005/06	% change	2006/07	% change	2007/08	% change	2008/09	% change	2010/11	% change
April	373		23606	57.29	56727	72.95	114352	128.66	121181	85.06
May	718	192.49	34176	144.78	73563	129.68	105098	91.91	123564	101.97
June	870	121.17	34221	100.13	72962	99.18	112784	107.31	149126	120.69
July	1688	194.02	33651	98.33	72442	99.29	115048	102.01	133713	89.66
Aug	2241	132.76	32277	95.92	67484	93.16	92367	80.29		

Sept	5037	224.77	36685	113.66	66719	98.87	109903	118.99		
Oct	8696	172.64	51808	141.22	83802	125.60	119910	109.11		
Nov	13688	157.41	63455	122.48	94237	112.45	121277	101.14		
Dec	13818	100.95	42159	66.44	64504	68.45	90289	74.45		
Jan	24799	179.47	62890	149.17	101648	157.58	132720	146.99		
Feb	33489	135.04	64671	102.83	107918	106.17	130377	98.23		
Mar	41206	123.04	77760	120.24	88882	82.36	142465	109.27		
Total	146623		557359	380.13	950888	170.61	1386590	145.82		

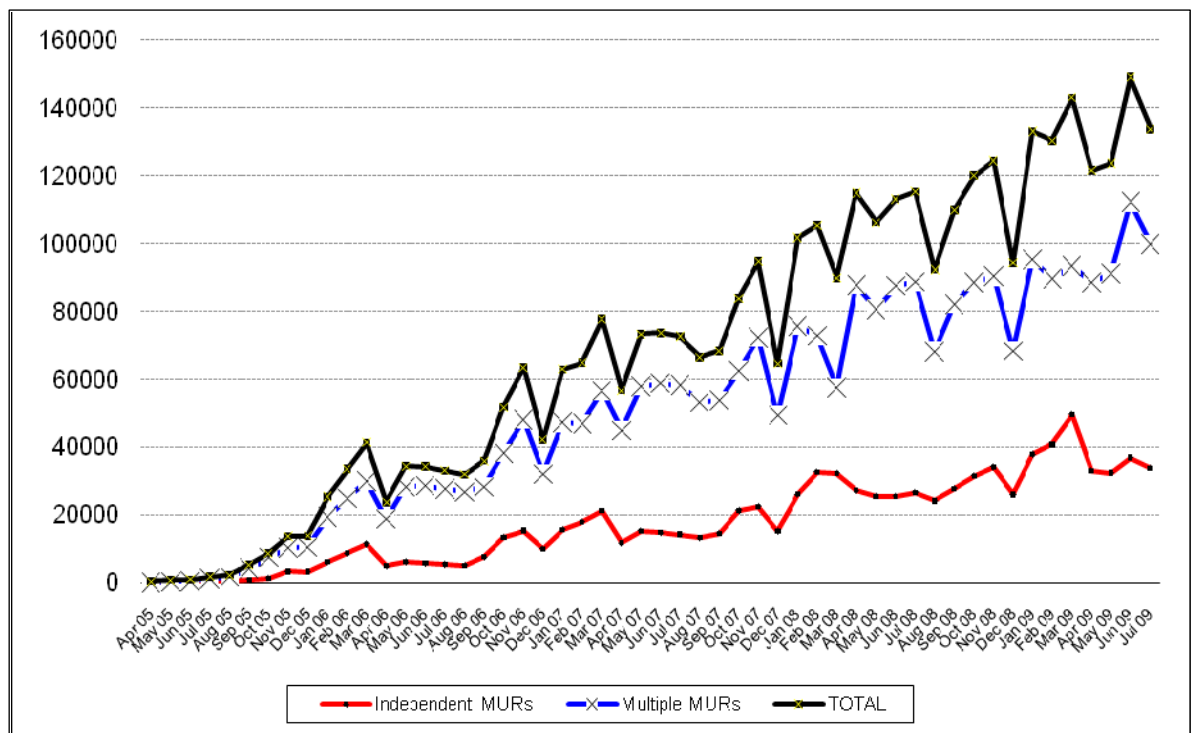
(For Table 14 and figures 6 and 7, raw data on number of MURs by pharmacy per month provided by NHS Business Services Authority).

Multiples are undertaking a much bigger share of the total MURs, both in absolute and percentage terms (see figures 6 and 7).

**Figure 6. Percentage of MURs split by type of pharmacy**





**Figure 7. Total number of MURs split by type of pharmacy**

The number of local enhanced services provided by community pharmacists in 2007-08 increased by 2,813 (13%) to 25,229 compared with 2006/7. This increased to 26,970 in 2008-09. The most frequent services provided in 2008/09 remain unchanged from 2007/08 and 2006/7<sup>48</sup>. These are Stop Smoking support, Supervised Administration, Minor Ailment Schemes and supply via Patient Group Directions.

#### 6.2.4 Funding for new services – qualitative analysis

This resonates with our interview data from pharmacists and PCT commissioners

*"PCTs are commissioning very few new services as a result of the new contract, that I'm aware of, and when they are commissioning, they tend to be, basically, small scale, more of the same...., your minor ailments schemes etcetera." 31 (PCT Pharmacy Adviser, Yr1)*

*"We have a lot of local enhanced services in our pharmacies.... they are historic, they were there before the pharmacy contract come in." 418 (PCT Manager, Yr3)*

Pharmacists generally indicated a willingness to increase the range of enhanced services provided. Whilst money was a motivator,

particularly for owners, pharmacists were also motivated by the potential to deliver services which they saw as being likely to benefit patients locally. There were barriers identified, in terms of PCT funding and the financial risks associated with such services. However, pharmacists' replies also suggested that an appreciation that enhanced services would (in theory at least) be commissioned as part of wider needs assessment process, as opposed to on the basis of responding to pharmacy contractors' suggestions, also appeared to be lacking at times.

*"The worrying factor with it, for me, is the contracts were sold in on the basis that there would be lots of new, enhanced services, and new things for pharmacists to get involved in clinically and professionally...it's largely because the enhanced services have to be developed locally with the primary care trust. And a lot of primary care trusts are financially cash-strapped. That's to say they find it difficult. But also, they don't have the management time and the management resources or the management skills, always, to keep things together. .. that is a big missed opportunity at the moment."*  
382 (salaried multiple Yr3)

*"to be honest the more services we can offer, the better we can be, so we'll take anything that we can get. I mean I have asked several times if we can do this smoking cessation training, but [name] PCT have not yet had any training to offer us . ... I have been asking them I think since we started here, which is about nine years ago... even the hormonal the EHC[emergency hormonal contraception] with [name] PCT they are only doing it in the certain areas, whereas in [neighbouring PCT] they've done it in all pharmacies in that area. So it's funding from the PCT is really holding us back offering a lot of the extra services that we would like to offer."* 65 (owner, yr 1)

*"enhanced services. .... it is not a steady income stream for pharmacists. ... smoking cessation, for example, it can be very seasonal...When the ban came in June or July last year, it was excellent. ... everybody's New Year's resolution is to quit smoking, but then come March everybody has forgotten about it.... The contract is seen as an income stream for pharmacists, so that we can develop our services. For something like that it is very sporadic. There is no linearity to it.... you can't sort of plan ahead because you can't predict necessarily, unless it is a new year.... Even then have a bit of a risk. You can't really predict who is going to walk into tomorrow and ask for a Chlamydia test*

*or if they want to stop smoking.... You can't really predict it. It creates uncertainty." 237 (owner, yr2).*

Some aspects of the new contract (e.g. the delivery of 'public health' advice) are regarded as vague, with little guidance on the nature of evidence to be provided to PCT reviewers or services to be delivered. Furthermore, whilst some pharmacists welcomed the opportunity to undertake MURs, seeing them as a source of role enrichment (especially for salaried pharmacists who may receive little or no financial reward), others highlighted the potential for this to become a 'tick box' exercise aimed at meeting targets and/ or increasing income, with the emphasis on 'quantity' rather than 'quality'. In summary, for pharmacies payment is a stimulus to action in many respects, but a reliance on others (GPs, patients and PCTs) means that pharmacies are constrained in their actions. Furthermore, dispensing is a major source of revenue and volumes here are continuing to rise. This also places constraints on pharmacists' ability to engage in other revenue generating activities.

### **6.3 What is the effect of employment status on performance and motivation? How does the distribution of rewards impact on performance and motivation? Qualitative analysis**

In pharmacy settings the context is one in which increasingly, multiples are taking over what were once independently owned and run local pharmacies. Large multiples provide career structures and training and development opportunities which are not so readily available to independent pharmacists working in their own business<sup>vii</sup>. Responses did not divide neatly according to financial incentive structures or employment categories.

Several owners reported being disadvantaged compared to multiples, but at the same time acknowledged benefits of independent status. Whilst money was a motivating factor, other influences included continuity with patients and closer relationships with local PCTs. Lack

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<sup>vii</sup> The impact of this differential in access to training and continuing professional development is unknown. However, a recent study reported that advice given by independent pharmacies is worse than in other types of pharmacy. Advice was unsatisfactory in just less than half of visits to independent pharmacies compared with between 17% and 20% of visits for large multiples. See the Which advice guide to pharmacies <http://www.which.co.uk/news/2008/09/pharmacies-get-test-of-own-medicine-157330.jsp> for further details.

of time and resources were concerns, although these were not confined to owners.

*"we do need to sometimes bring people into the consultation room and have a chat with them. It's quite important, that side of it, and I don't feel that I've got enough time to do that.... that is probably the most annoying side of it - the fact that you don't have enough time to speak to people...I'm working my pants off to obviously maintain the business.....from being in a large retail group, then to come into a smaller independent and owning your own pharmacy, I'd say that I've become more familiar with the PCT, their operations and obviously people within the PCT. Whereas before we didn't know who the PCT was, at that point, it was all handled by head office...the money side of it, and the fact that it would be nice just to be working in a small community where you know everyone, rather than in a large multiple where you weren't really appreciated and you didn't get to see the repeat trade. So a smaller location, familiarising yourself with the area and the people and just the fact that it was going to probably more rewarding, and it seems to be." 66 (owner, Yr1)*

*"My workload has definitely increased. It's all of these what are they called? Standard operating SOPs. .. Writing all these things yet again. For the independent it's a hell of a job. For a multiple, someone at the head office does them all and sends them out. I suppose that's just one of the troubles of being on your own. Pharmacy is so fragmented... But, it never will change, because you've got the companies in there who, if something happened to the independents, they'd rub their hands together. If something happened to one of the other groups, the other group would rub their hands together. It's business.... It is nice. Because being a community and having been here forever, you do get comeback..... A lad came in yesterday, must have been about 30. He said, 'You changed your chair! You used to have a green chair there'. He remembered. Yeah. It's part of people's lives." 226 (owner, Yr2).*

Locum pharmacists generally reported experiencing less stress, compared with other types of pharmacy employment.

*It is less stressful...when you're locuming... if they ever ask me to do MURs ..when I'm locuming, then I get paid extra for it. 27 (salaried, multiple, Yr1)*

*"locums, if they did want to do MURs and by all means they could've done it, but the pressure wasn't on you ... to do that." 314 (salaried, multiple, Yr3)*

*"I've only ever been asked in multiples twice to do MURs." 361 (locum, Yr 3)*

*"when I sold it to other pharmacists, I was the last single-handed contract in that area.....pharmacy is changing a great deal. The whole practice is now supported by corporate functions. The government like to see their paperwork trail, and it's not efficient for one person to do it, whereas it is efficient if a department handles it for a group of pharmacies. So this plays into the hands of the corporate.... It's a job. It's no longer a profession. I perform pharmacy now, simply and solely because I can earn as much in three days in a pharmacist, as I could do working full time as an electrician" 370 (locum, former owner, Yr3)*

The picture of locums as working less diligently was shared by other pharmacists.

*"there's a lot of really rubbish pharmacists out there. ...They're either really young or they're locums" 254 (owner, Yr2)*

*"Sometimes, someone will say "Look. I'm MUR accredited. If you want to, put me into shops where I can do MURs." ....it can be hit and miss...customers complain, and I come back the next day and I've got loads of problems to sort out" 158 (salaried, multiple, Yr2)*

*"It's very hard to get good locums..... There are lots of bad locums, incredibly bad locums. I've had lots... they'll just literally sit there and read a newspaper and expect staff to run round after them." 267 (salaried, independent, Yr 2)*

Some locums reported being motivated to take on additional work (e.g. MURs) regardless of whether they received additional rewards.

*"I have actually been involved in contract monitoring in my area. And I have seen some absolutely, for want of a better word, shit MURs. They've got, aspirin 75s, or, "Patient actually had to use an inhaler. I'll do an MUR!" Personally, I'm actually trying to not do them on patients under less than eight drugs. Because it's more stimulation for me, and it's more beneficial to them. And even then, I reckon I've got a one in three action rate from MURs done on patients like that." 358 (locum, former owner, LPC chair Yr3)*

*"we get a very positive, warm feedback from patients who, if you spend five or ten minutes talking to them, either informally at the side of the counter or in a consultation room or whatever, the time that you give them is very much appreciated. Now whether that is done informally or is done as part of a formal MUR, it's all part and parcel of the same thing, but traditionally we have always offered our time to that and I don't think that has changed very much." 362 (locum, former owner, Yr3)*

The responses above, are from older pharmacists with many years' experience and according to the national workforce census, older pharmacists comprise the majority of locums<sup>50</sup>. The employment category 'locum' comprises people from a range of backgrounds and ages. Pharmacists described a range of factors motivating them to work as a locum, including 'keeping one's hand in' towards the end of a long career, responding to requests for help from friends, earning (extra) cash, combining work with childcare responsibilities and freedom from management responsibilities.

Demotivating factors for locums were working with staff who were strangers, unfamiliar settings and procedures, and policies and equipment which were not of the standard required.

*"The computer was broken ...The fax was broken. .. it's that kind of thing. There were lots of out-of-dates on the shelves." 265 (salaried, multiple, Yr2)*

*"They don't pay very good wages, and if you're working for them, they hang onto the payments for ages and the computer system's not very good." 254 (owner, Yr2)*

*"I only did one day and I've never been back... They had this technician there and she kind of ruled the roost and it was*

*obviously that she didn't require a pharmacist's presence, let's just say. She was just a real stropky kind. And I like to go in, and I do like to think, "OK, while I'm here, this is my pharmacy. We do things according to these standards." And that went over completely like a lead balloon, and we sort of ended up... [growling]...at each other's throats." 360 (locum, Yr3)*

The issue of working with other staff who were unknown to the locum pharmacist goes beyond the irritations of personality clashes. If pharmacists are to work to their potential, it is necessary to delegate tasks to other people in the pharmacy. The ability to place trust in colleagues is likely to be increased if pharmacists have a long term working relationship with them which allows them to gauge their competence. Some pharmacists acted as regular locums in the same pharmacy, combining the benefits of flexible working with the opportunity to develop relationships with colleagues.

*"fortunately, I've got a good relationship with the locum coordinator...so I've become regular locum at two or three different shops. So it's quite nice, because I'm building up a relationship with the staff and building up a relationship with the customers. In the four and a half month period that I've been doing it, customers have started to come in and know my name, even though I'm only working there one day a week. So, I'm re-establishing a rapport with customers, which is what I like." 391 (locum, Yr 3)*

However, this was not always guaranteed to produce highly motivated pharmacists.

*"It's a small shop, I'm not getting any training... When you're working for the bigger chains locuming, they're more to date with the changes. Here, you have to do all of that by yourself. So I've started to hate it...I love the shop and the girls and everything, but it's just the workload and having to do everything myself, and I'm not getting much help. The pharmacy used to be owned by Joe, it was a small independent...But then a bigger company has taken over...They just leave you to it and don't really get involved much, and I don't get much support. Whereas when it was the small business, Joe was over the road and had the small shop and we'd communicate every day. If there was any change or things going on, we'd have a little meeting. I got a bit more of the help and the support, which I don't feel I'm getting now." 255 (long term locum, independent 5 shops, Yr 2).*

With regard to employee pharmacists, responses reflected a wide range of perspectives. In addition to pharmacists working in one pharmacy, we also interviewed relief pharmacists who worked in different pharmacies to fill gaps wherever they arose. Most employee pharmacists had chosen to work as an employee rather than an owner, preferring to avoid the responsibility of managing a business. However, a small number described themselves as acting like owners and being rewarded accordingly.

*"the way I manage a shop is the way I would run a shop if it were my own. A lot of pharmacists are different than that. If it's not their own shop, then they don't perform in the same way that they would if it were their own. But because that's the way I am, that's what I attempt to do. .... I charge a rate that I think reflects what I consider to be my experience and expertise. I'm probably, a bit more expensive than other pharmacists, but then, in the words of the L'Oreal outfit, I think I'm worth it. [laughter]" 267 (salaried, independent Yr2)*

Whereas owners were motivated by the freedom afforded to them because of their owner status, many employee pharmacists were motivated by freedom of a different sort. However, being an employee pharmacist did not remove all management responsibilities.

*"I mean, with staffing issues and things, obviously, then it helps to have somebody above. And actually, I like having somebody above, because those can be some of the [laughing] hardest things to deal with. I'm quite enjoying not getting involved with the people-management aspects. .... Being a relief, I don't get involved with staff issues at all. And that, as a pharmacist, is probably one of the hardest things to deal with is that I can't think of another profession where you have to stand next to anybody you might have had a disagreement with for the whole day. [laughs] It's really difficult if you're trying to manage people that you have to be right next to every day that you're there. ... because then all the strops and fallouts and everything goes on. And it really is disruptive if you're busy, because you can't help but be thinking about any fallout or any disagreement that's gone on." 323 (salaried, multiple, Yr 3)*

*"I'm not what you call "business minded." I wouldn't want that responsibility, whether it worked, whether it didn't. I like just doing the normal hours and having your holidays and get out,*



*not worrying who's covering.... I wouldn't fancy that, whether it's making a profit or it's not. I wouldn't do it." 238 (salaried, multiple, Yr 3)*

*"There is no impetus now for me as a pharmacist to set up my own business, in the current economic climate, with the risk in property, the risk in investment, and the number of hours you need to work as an independent. I can work a 40 hour week, go home and enjoy my family life. As an independent, you can work your 40 hours and then probably do 40 more, or more, hours at home planning your business, or planning the future of your business. ...with today's workload pressures and expectations, work life balance has to be a crucial choice." 394 (salaried, multiple, Yr 3)*

Financial rewards tended to be linked to employment status, with owners taking the business risks and the profits and employee pharmacists sometimes receiving a bonus for conducting MURs. This payment did not appear to be highly motivating. Although pharmacists reported that where bonuses were paid these were small, there was no suggestion that should be increased. Rather other factors were mentioned as motivators such as feedback and the provision of resources for training and development.

*"you get your fee for doing it and that it is kind of what is based on, not necessarily what it is in the best interest of the patient. There are ones I do, but I don't do that many compared to the other pharmacists that I know. I've treated people where I know there is going to be some kind of benefit, not just to get my figures up. I am kind of reluctant to do it just for the sake of doing it, because the chances are they will learn what you did when you send them to a doctor, as well as you never get any feedback from doing it. So you think, what's the point? The company is going to get 27 or 28 pounds, whatever it is. I am going to see hardly any of that, so it's a lot more of that missing out for me. That's not saying I won't do it". 380 (salaried, multiple, Yr 3)*

*"that was a one-off thing just to get people sort of motivated so a few of us that got on and did it first thing got a couple of hundred pounds, it wasn't sort of major money... there's no bonus now particularly for you, to meet your targets. Sometimes some of the companies, some do a little incentive scheme but by the time it's, sort of twenty pounds or something split between six of you in the shop, I wouldn't exactly call it,*

*it's not an incentive really.... the company did sort of a couple of sort of training sort of days type things and they continued to send out support booklets type thing so every couple of months they'll bring out a different topic, whether it's on angina or asthma or something like that." 117 (salaried, multiple, Yr1).*

#### **6.4 What is the impact on team organisation and relationships? Qualitative analysis**

Recent reforms offer the potential for pharmacists to make greater use of their skills and training. To achieve this, pharmacists need to be able to delegate work to other staff members. Various training and accreditation processes have developed for non-pharmacists in community pharmacy, which are intended to allow pharmacists to make better use of their skills. With regard to dispensing, pharmacists are required to perform a 'clinical check' on prescriptions received, to assess the drug prescribed and dose, but can delegate other stages (dispensing the medicine and counselling) of the process to non-pharmacists (Accredited Checking Technicians or 'ACTs' and dispensing assistants).

Most pharmacists welcomed the intention underpinning the new contract to encourage a move away from dispensing. But all pharmacists also described their working environment as very busy and driven to a large extent by the need to maintain dispensing volumes.

Where technicians were in post, most pharmacists welcomed these as valuable resources enabling them to delegate much of the dispensing process. Some pharmacists expressed reservations about delegation. This arose in part from fears about the competence of these staff and pharmacists who chose to retain greater involvement in the process were depicted as belonging to 'old school' pharmacy, avoiding interaction with patients.

*"it's suddenly sort of opening up more than just counting the tablets. ....we can pass it on to Accredited Checking Technicians ... Pharmacists in the old days ... just dispensing and maybe just struggled a bit more" 12 (salaried, multiple, Yr 1 )*

*"if you have to sit in a consultation room for .. half an hour at a time the whole dispensing process is ... held up while you're doing that consultation...if I had an Accredited Checking Technician, I wouldn't get any of these problems. And it does free up my time, then, to do MURs" 29 (salaried, multiple, Yr 1)*

*"I hate checking the prescriptions for accuracy. I think that you could teach monkeys to do prescriptions, to be honest" 25 (salaried, multiple, Yr 1)*

*"There are pharmacists as well who are sort of older who, what would I say 55 plus, who are of the old school and don't think they should be out there seeing patients and would rather be mixing stuff." 37 (salaried, independent, Yr 1)*

*"I don't have any problems with delegation, and I don't have any problems with the new checking technicians, because I've worked with a couple of checking technicians just recently.... the checking technician bit frees the pharmacist up to do what I feel is the pharmacist's job, in being an information service and a help service." 391 (locum, multiple, Yr3)*

During the third year of the study, a locum pharmacist Elizabeth Lee, was prosecuted for giving a patient beta-blockers instead of steroids. Although the judge found that Mrs Lee bore no "legal or factual" responsibility for the patient's death, she was given a three-month suspended prison sentence, to "mark the gravity of the offence." <sup>132</sup> This appeared to be having some impact in terms of the willingness of pharmacists to delegate to other staff.

*"I would have thought that a lot of people now would be far less happy to delegate now that Elizabeth Lee was charged with that manslaughter charge. It's made everybody a little bit worried, because obviously we all make mistakes very similar to the one that she made." 395 (salaried, multiple, Yr 3)*

Despite support for delegation more generally, the contract was impacting on relationships in ways which were not necessarily welcomed by all pharmacists.

*"health promotion, which I was already doing. But I just wasn't recording it onto the computer every time I give a leaflet out. I have to record it now....and every time we tell a patient about the national public health campaign. It adds quite a lot to the workload, because it's very difficult to get staff to do it because they forget to do it. They forget to do the opioid therapy check label. They forget to do the methotrexate check label. So I'm having to go back in all the time for check labels. Every single time, they're forgetting to do it. But they are getting better.*

*They're getting better as time goes by, the more I nag. I feel like a complete nag. Everything I'm saying to them is a criticism. I find that really hard too, because I'm criticising them because I'm pointing out mistakes all the time. .... It wears you down constantly. "Can you remember to do this? Can you remember to do this? Can you do this again? Can you change that, because you've got that wrong." Fill in the form, as well. Filling in their near miss forms. Then when there's a significant event, we've got to remember to fill that form in. It is rather a lot of forms to fill in, which obviously takes a lot of time up. I don't know whether, to be honest, it will help patient safety or hinder it, because if you're filling in all these forms, you're not concentrating on the job that you were doing before really" 395 (salaried, multiple Yr 3)*

During the research interviews, which were often held in consultation rooms used for MURs, staff members interrupted to ask pharmacists to perform clinical checks and the rest of the dispensing process was carried out by non-pharmacists. This suggests that when pharmacists are conducting MURs, opportunities for other activities such as patient counselling as the last stage in the dispensing process are reduced. Only a small number of interviewees suggested that pharmacists needed to maintain an involvement throughout the process to use their skills and knowledge to understand the patient.

*"I see a patient's record and I look at a patient as a whole, and I see what is getting prescribed, what they are for, and what is going to go with that ... because I have the knowledge here. ... I can see if something is missing something should be different, blah, blah. And I do the intervention at the time of labelling... a lot of pharmacists ... they have not got a full picture of the patient ... All they are really doing is accuracy checks" 239 (salaried, multiple, Yr2)*

*"More ACTs. Checking..... Maybe I'm old school, but I like to be there involved with the checking and the supervision." 67 (salaried, multiple, Yr1)*

There was a perception that recent changes to the contract played out differently in multiple and independent pharmacies. For pharmacists working in independents (owners and salaried staff) multiples were depicted as bureaucratic, standardised and driven by profit motives, with much less emphasis on patient wellbeing. Multiples were described as placing staff under greater pressures to meet targets, compared to independents. Rather than reflecting a

multiples/ independents divide, however, even amongst many salaried pharmacists working in multiples, there was sympathy for the plight of independents struggling to compete with large chains in the new environment.

*"it has been financially demanding for independents. So, maybe that's the imbalance that actually occurs with the new contract. A lot more should have been done to.... help the independents."*  
10 (salaried, multiple, Yr 1)

*"A single-shop independent, the SOP process which has come through, generating all the SOPs which are required must have been an absolute nightmare. Whereas, with the multiples, you'd get a generic SOP which covers the whole company, which, in my case, you could then tweak to suit the way you wanted done that particular procedure, to go through and then get the changes authorised."* 391 (salaried, multiple, Yr 3)

Many respondents from independents highlighted features such as continuity and knowledge of the community as contributing to the quality of MURs and service more generally. Often these sentiments were expressed by pharmacists working in multiples too.

*"an independent pharmacist who knows his patient can do a better medicines use review... multiples ... they've got continuous flow of staff. Nobody stays there all the time."* 28 (owner, Yr 1)

*I don't think they [multiples] give the service and attention to the customer and the patient that we can do* 264 (Owner, Yr2)

*"Staff feel happier in smaller pharmacies .. easier access to the people above ...more personalised..... bigger companies... more targets...more business driven. ... I have worked for [large national multiple] for five years... people are replaceable, so it is not quite the same sort of attitude.... that shows in people's work as well. If people are not being treated well, people might think, why should I care? Some of it is being passed onto customers".* 314 (salaried, multiple, Yr 3)

*"I would imagine it probably works a lot better in the independents, because the staff tend to know each other a lot*

*better and you don't tend to have the same sort of locums coming in and out day after day.... and you don't quite get the relationships with regular people... People see you as more, as a sort of more community resource... there are fewer jobs in independents, and perhaps, unfortunately, in the current climate, it's possibly less stability in the work because they don't quite have the same financial clout the big ones have." 323 (salaried, multiple, Yr 3)*

*"Working through an independent, you're not just a name. You get to know everyone that works for the company. It's more a family unit. This is a bit too large. You used to have all your Christmas cards, didn't you, Diane [technician]? It was a lot warmer. No one knows who we are at the head office, do they, Diane? They're swapping and changing the area managers all the time. What I do find is it's very demanding as far as you're finding it hard to juggle your time doing what your normal job is and all the extra commitments that you're supposed to do. Because they're always going on at me about how many MURs that you've done and that. Emergency contraception. Smoking cessation. .. I haven't got enough hours in the day to do it all. I have higher stress levels. I'm sure I'm not on my own to say this is rising. Because each time they come in they're asking. And you don't see anything other than MURs. And to me, it's not quantity, it's quality. And that's what I find wrong. They're pushing you more to do as many as you can. Of course, where is the quality if you haven't got the time to fit it in? That's what I feel anyway. I stick by my guns on that one" 238 (salaried, formerly salaried independent, but taken over by a multiple, Yr 2)*

Other comments made by pharmacists indicated that pharmacy could be a relatively lonely life.

*"You're not working with other professional people. You're on your own, really. ..my children ... one of them is going to be a lawyer. She'll be working in a law firm with other lawyers. The other one's going to be an accountant. He'll be working with other accountants. I wanted them to work with other like-minded people in a stimulating environment. Sometimes I haven't found the pharmacy like that." 389 (salaried, multiple, Yr 3)*

However, there were other mechanisms for making connections with other pharmacists.

*"It is a lonely life. You can't ask your staff because then that would undermine the confidence that they would have in you as a pharmacist..... Although you are on your own, you're not on your own as well, because we all know at least five other pharmacists who we can get in touch with. I know if I've got a clinical issue, then I know what pharmacist I would ring up in the first instance, and it's nice to have a debate of the situation..... the law side, though, is more important, because that seems to sneak in more and change more. And the repercussions of getting it wrong, especially in this day and age, are a lot greater." 390 (salaried, independent, Yr 3)*

*"The company organises pharmacy forums on sort of a monthly or two monthly basis, which are purely voluntary, but you tend to get pharmacists turning up there, probably 80 percent of the pharmacists who are in the company. So you meet up, and you chat, and you discuss things. And because branches are so close, you tend to ring each other up, even if it's just 'Yeah, I've got Mrs. Smith in the shop, and I haven't got the stuff on her prescription. Have you got any'" So you build up relationships with pharmacists in that way." 391 (salaried, multiple, Yr3)*

*"My wife works for (large multiple) and they very rarely see their area management, whereas our area management is only a phone call away and tend to visit every week. So we tend to have a more personalised approach, where we know all the staff or the individuals personally. With a company, you tend to get ideals passed down from an ivory tower, some lofty ideals, but with very little real, coalface input. ...If you imagine, we're not like the lumbering ship going across the ocean. We're like the barge which can nudge it in the right directions. So we tend to be much more manoeuvrable" 394 (salaried, small multiple, Yr3)*

As the above quote illustrates, being able to have a say from the 'coalface' was also a source of motivation.

*"I gave the idea to the boss to do that. This is a 100 hour pharmacy and I felt that pharmacists nationwide were struggling to cope with the demands with these enhanced services and new services being deployed. The boss was convinced and he invested in employing this practice manager, hoping that there'll be a return by the pharmacists taking part in*

*more enhanced services. He's repeated the model in other branches in the country." 387 (salaried, multiple, Yr 3)*

*"the superintendent pharmacist is very approachable. For example, the other day, I was reviewing an SOP. And I'd only changed something very slightly, but I just emailed it to him and asked him to have a look and if it was OK. And he emailed me back, I think it was the next morning. I could speak to him if I wanted to. Whereas, where I worked before, the company was so big, I'd never met the superintendent, never mind got to speak to him. Do you know what I mean?" 393 (salaried, multiple, Yr3).*

Pharmacists complained of a lack of time and cited the requirement to be in two places at once (dispensing and in the consulting room) as a source of frustration. Many went beyond that, drawing attention to the circumstances which not only added pressure but left them feeling unable to give of their best.

*"the pharmacy I'm at, at the present, we haven't got consultation rooms. I'm not able to do that [MURs]. So I would like to get more involved in that sort of thing and in the extra services like the EHC. But at the moment we can't do it because we haven't got a consultation room" 395 (salaried, multiple, Yr3)*

Whilst pharmacists appeared to be largely supportive of reforms aimed at enhancing their role, these reforms did not remove uncomfortable aspects of the job such as disciplining staff.

*"It wasn't in my degree, it really wasn't. We did a little bit about business, but nothing about management, dealing with staff. And the first time I had to discipline somebody when I was newly qualified, I was terrified. I don't think my heart stopped racing for about four hours....And I didn't enjoy doing it at work on Tuesday." 385 (salaried, multiple, Yr3).*

*"anything here that goes off, I'm responsible for it. So I want to be as much involved as I can. But sometimes it involves me trying to do too much at the same time. Doing two or three things all at the same time when I might be able to delegate it to someone else, I'm kind of reluctant to do it. Because I know that if it goes wrong then I am going to end up sorting it out, I*



*will be responsible for it if something happens. It's difficult to do that when you've got that kind of shadowing you." 380 (salaried, multiple, Yr 3)*

*"if you want to talk to your manager, you've got nowhere to take them. You can't have anything more than about five minute conversations because they got to be interrupted to buy prescriptions. How on earth do you do it? .... You have to find a way to do that work, in very close teams, not favour one person over another ... I've got a dog, they've got a dog, so we talk about dogs all day and it alienates the two other people who hate dogs." 375 (salaried, multiple, Yr 3)*

*"I don't really want to answer to somebody else when something goes wrong, I'd rather just be able to sort it out myself. Obviously I can't do anything about it because I'm not in charge." 388 (salaried, multiple, Yr 3)*

## **6.5 What surveillance mechanisms are in place and how do these influence responses/ attitudes to incentives? What is the impact of size of organisation? Are there free-rider effects in larger organisations and if so, how are these dealt with? Qualitative analysis**

In recent years community pharmacies have been subject to a range of internal and external scrutiny processes, which have increased since the introduction of the contract.

PCTs conduct brief contract monitoring visits with pharmacists approximately every two years lasting 2 hours on average. Pharmacists do not perceive these visits as onerous but do complain about paperwork associated with the new contract. In addition, in some cases requirements concerning documentation (for example the manner in which to document giving public health advice as part of the new contract) were regarded as vague and/or impractical.

PCTs report few, if any, levers at their disposal for securing compliance with contractual requirements and difficulties monitoring compliance.

*"I did not really find it [PCT inspection] to be much of a problem, because everything was fairly straightforward. ... Essentially, they highlighted a few things and what they would expect and what they wouldn't from there. I did not really have much contact other than that. 243 (salaried, multiple, Yr2)*

*Before, we knew the PCT was there, but we didn't have much contact with them. When there was a problem, we would call them, but that was all. And now there's lots of people there supporting us.... They obviously check, and we have the audits every now and again. But I mean, since they started it, it was good. Because they can come around and see that something is not being done the way it should be, or there's a more effective way to do it.... There's always a little bit of stress involved. But if you have everything kind of up to date, there shouldn't be." 155 (salaried, multiple, Yr2)*

Interviews conducted with commissioners in year 3 of the study suggested that PCTs were starting to improve their understanding of what was happening in local pharmacies. This was prompted in part by the requirement in the Pharmacy White Paper action plan requiring a review and strengthening of current arrangements to ensure that Pharmaceutical Needs Assessments (PNAs) are an effective and robust commissioning tool.

*"I advised the PCT that I didn't think they should be conducting the PNA process based on the data they have.... When we looked at the data the PCT carried on Community Pharmacy, I decided it to be so inaccurate ... in the end we actually ended up going with a full pharmacy questionnaire and really started from scratch from a data point of view....we've corrected that data and ... are now in a much, much better position for our whole sort of contractual process with our pharmacies than say a year ago...I mean surprisingly although we are supposed to commission enhanced services we didn't seem to have robust data on who was doing what". 418 (PCT manager, Yr3)*

However, they also reported having insufficient time and resources to scrutinise effectively.

*"I would like to be able to review more of those to see what the quality of the MURs are. But unfortunately, with the volume of work around the pharmacy, it is very difficult to get that done.*

*It is there on the sideline waiting to be picked up....there's not enough time to do that. But it is there and it is a constant concern... I have got questions where I see in a month a pharmacy can do 60 MURs... I would like to be able to see some of those 60 MURs just to reassure myself" 21R2 (PCT Manager, Yr 3).*

From the 2007/08 contractual year, pharmacy contractors were required to conduct an annual patient survey using the Community Pharmacy Patient Questionnaire (CPPQ). Pharmacists did not appear to see this as intrusive, though some were sceptical of its value.

*"Patient surveys were absolutely no problem. The only problem that we had was, because we were doing them on basically a yearly basis, time passes very, very quickly. And the first time we did them, no problem at all. Everybody filled the forms in beautifully. The second time we tried to do it, we got a lot of patients who said, "I just did one of them the last time I was in." And we said, "The last time you did one was 12 months ago." 391 (salaried, multiple, Yr3).*

*"I'm sceptical over the successfulness of surveys, because you can give a person a medicines use review, and not call it an MUR, and then give them a questionnaire saying, "Have you ever been offered an MUR?" and they'll tick no, having just sat down with you for about an hour. ... as I say, I'm not a great believer in the successful nature of questionnaires. 394 (salaried, multiple, Yr3).*

However, with regard to other types of surveillance, particularly in multiples, this was reported as intrusive and stressful. Almost all participants in our study worked as the sole pharmacist, in a role which added MURs to existing workload and pressures and meant that 'free riding' was not an option. These pressures are exacerbated in a context where pharmacists are given target numbers of MURs to achieve.

*"Now, the target is 400 a year. [names multiple] has said we need to do 400 a year, which is eight a week...doesn't sound like much, does it?.. if you aimed at two a day you could cover it. But, finding two lots of 20 minutes to sit with somebody... especially if you're a busy pharmacist. We have tried a system where because we've got double cover on a Friday morning or both in on a Friday morning... we booked people in an*

*appointment system. We could get five in on a Friday morning. But, people just don't turn up for their appointments. Now we're doing this: just grab them. Have you got a few minutes? [laughs]" 156 (salaried, multiple, Yr2)*

*"There are a lot of pharmacists who are under a lot of pressure to deliver MURs. I have to deliver 400 MURs. No doubt about it... If I'm short by a hundred, then I'll be in trouble. But the direction of travel in the NHS is such that we can't rely on doing prescriptions. We have to accept that our role is you do the services and you dispense prescriptions." 159 (salaried, multiple, Yr2)*

*"we don't get a bonus or anything, but you're asked to report on it and obviously, at the end of the day our pharmacy consultations are all on there [the computer system] ... We have targets about providing service, preventing losses and all of this.. you've got area managers in there who want to see that you've done that, so it's just trying to get a balance of everything... prescription-wise, MUR-wise, and everything, services." 233 (salaried, multiple, Yr2)*

*we have an appraisal....more MURs, increasing profits. Not necessarily developing advancements. We're increasing someone else's revenue. 380 (salaried, multiple, Yr3)*

*[names pharmacy employer] have just introduced the targets and what have you. They seem to be losing focus - they just want too much. 383 (salaried, multiple, Yr3)*

*"the pressure is on that you have to do them. And so you're trying to talk customers around to having an MUR just because you've got pressure from above that your targets aren't being met..we're under pressure to perform. It's not quite like being in a circus. Well it is in a way. ... You're thinking during the day, "How am I going to get one done?" And that shouldn't be how it is... "Come on, I haven't done one yet!"... and it's now four o'clock and I'm not going to meet my targets if I don't get somebody." Trying to get the customer to feel guilty or feel sorry for the pharmacist. We've tried all sorts." 385 (salaried, multiple, Yr3)*

*"The money's all right. I don't enjoy it as much as I used to. Partly because of the more and more that we are expected to do within the same amount of time. It is getting more pressure at work to do things. With the recent economic climate there is more pressure to get the maximum they can out of you. It's enough getting as many prescriptions as you can as well having to get stuff for MURs or blood pressure or Chlamydia tests, weight management and all that sort of thing. You're basically having to do more with the same amount of resources." 388 (salaried, multiple, Yr3).*

## **6.6 What is the potential for 'gaming' the system and is this exploited in practice? Are there any unintended consequences for patients and will they have differential effects which disadvantage or privilege particular patient groups? Qualitative analysis**

In addition to pressuring patients, the effect may also be to choose to conduct MURs which are less resource intensive, of limited benefit and cursory in nature. A small number of pharmacists described engaging in such activities.

*"I just pick the ones who are on the least amount of medication" 263 (salaried, multiple, Yr2)*

*"they were opportunistic, simple as that, actually. In fact, one was a member of staff who was having trouble with her medication so we said, "Right, you are a candidate." 9 (owner, yr1)*

*"half the time I'm going to spend 20 minutes with someone, go slowly through everything that you need to do, but if I'm here with someone and they're knocking on the door... you have to hurry up. And probably that person won't benefit as much as they should with the MUR." 155 (salaried, multiple, Yr2)*

*"the way I feel about being forced into doing MURs.. you're just running through the motions .... they [patients] don't have any real issues, and you feel a bit of a plonker because you've not really told them anything useful, and you both go away thinking, "Well, that was a bit of a waste of time." And that undermines the service, as far as I'm concerned" 323 (salaried, multiple, Yr3)*

Apart from a small number of respondents who admitted undertaking 'tick box' MURs, most pharmacists described their own conduct as according with the spirit (as opposed to merely the letter) of the MUR guidance.

*"The MURs - I generally chose elderly people that were on four or more medications. I just generally asked them to come in for a chat into the back. Sometimes, there would be nothing. They'd understand completely what they were doing. Other times, they didn't, and something would crop up. It would be a benefit. So I found that quite rewarding." 389 (salaried, multiple, Yr3)*

*"Most of my MURs are intervention MURs, which it may be a 5- or 10-minute chat with the patient, which, if there's no one else in the pharmacy or you're in a quiet section, you could easily deal with that. .. to be fair, pharmacies have always done MURs. We just didn't see them as MURs, and we never documented things." 390 (salaried, multiple, Yr3)*

*"So, to start off with, they were quite resistant to it [MURs]. But then, as you do more, and they start to see the benefit and then recommend them to other people so that other people come back and say, "Oh, you sat down with my friend or my husband or my wife and spoke about their medicines. Can I have one as well, really?" 352 (salaried, multiple, Yr3)*

However, almost all participants reported hearing 'tales' about other pharmacies generally, in terms of undertaking perfunctory MURs, which were rushed and likely to have a detrimental effect on the public's perception of pharmacists and MURs. A recurring theme was that this was a characteristic of large multiples, due to the pressure on employee pharmacists to hit target levels of MURs.

*"I don't know if it was [large multiple] or a [large multiple] Pharmacy... they did an MUR on someone who was just on aqueous cream... it's tantamount to fraud" 244 (salaried, multiple, Yr2)*

And at times there appeared to be different views of what constituted a useful MUR.

*"I've heard that some pharmacists carried out a medicine use review on methadone addicts. ... I don't think that's ethical.... If it's not beneficial to the patient, I don't see the point of doing it"*  
27 (salaried, multiple, Yr2)

*"just go into the consultation with the customer and say, "Look, you missed your methadone yesterday. I need to have a chat with you about how important it is, this compliance, that you take it every day so you don't miss medication as well. But if you've taken it, that's fine." Have a chat with them. And there you go, you've earned 26 pounds"* 390 (salaried, multiple, Yr3)

MUR provision was much higher in multiple pharmacies compared with independents. Pharmacists in multiples were more likely to report experiencing surveillance and pressure to hit targets from within the company.

Detrimental effects include wasting patients' time (see below).

### **6.7 What is the effect of incentives to improve processes of care on patients' perceptions of care/services provided? Qualitative analysis**

Most patients had little to say about their experiences in pharmacies and amongst the small number who had experienced MURs, opinions were mixed.

*"they did actually ask me about my medication. They gave me one of those little interviews where they take you into the cubicle, and I don't know how they picked me .....they just said, "Have you got a few moments to spare, we're doing a survey, would you answer some questions about your medication?" I'd gone in with a prescription, and then that's when it happened. ... I actually sat there and told them what I was taking and why I was taking it, what it was for, which was the general reason for it, it seemed to be that I was ticking all the right boxes, I guess, because I knew what I was taking, and why. Which, I wonder how many other people don't.....they'd completely gutted the shop part and they made it much more spacious, and then they built this cubicle, and I kept wondering what was going on there, thinking what's all that about? Then it became apparent*

*when they pulled me in .... Yeah, they trapped me in there.... I didn't actually find it very useful at all, but then I don't know what their remit was, other than checking on me and what I knew.... No, I didn't find it very useful.....I think it's the doctor's role. I don't actually think anything that I got they would actually be able to help me with, really. I mean, I haven't got to make choices... They didn't offer me any advice, they just did the questionnaire." PT12 (Female age 52)*

*"I don't really think it made any difference to be honest with you. Take the same tablets every day." PT20 (Male age 74)*

*"I said I take these twice a day. And she said no, it's better if you take them once...They have a review in the chemist, going through all your medication. I've been twice going over a number of years. Where they go down your medication and ask you questions about it... it was [useful]. She told me to take these two, which was more beneficial, taking the two together. They were less effective two apart; they were more effective if you took the two together." PT17 (Male age 77)*

## **6.8 Is there evidence of ceiling effects or the pursuit of target, as opposed to maximum, income? And is there evidence that PCPs are willing to forego income in exchange for other things? Qualitative analysis**

Most of the pharmacists we interviewed were employees paid a fixed salary. In the community pharmacy setting generally, there was little evidence that trade-offs were being made between for example income and leisure time. Instead trade-offs appeared to be between dispensing and MURs. Low volumes of MURs reflected pressures on space and resources rather than a conscious decision not to undertake these due to target income having been attained.

## **6.9 In what ways do policies to increase choice and competition impact on PCP behaviours and attitudes? Qualitative analysis**

There has been a recent emphasis in policy to encourage pharmacies to be more responsive to consumers. Patients generally viewed pharmacies as relatively user friendly places and the delivery service (offered by the vast majority of community pharmacies in our sample) was appreciated.



*"They will deliver..., they're very good that way... My chemist hasn't [offered an MUR]. I don't know if they do it, but they certainly haven't said it to me. Because one of the things that I'm going to be doing, actually, is to have a go at my doctor about reviewing the medication I'm on for my diabetes. Because it makes me sort of gasp every now and again." PT21 (Male age 77)*

However, some pharmacists objected to having to provide home deliveries, but felt they had little choice in an increasingly competitive market. This was partly due to the costs involved, but also because this reduced opportunities for direct patient contact. Comments by pharmacists suggest that these developments were having a negative impact on the level of 'perceived public service efficacy'<sup>79</sup> of their organisations amongst pharmacists.

*"Because the multiples started doing it, now we have to start doing it, which is obviously an expense for us because we don't charge the patient.... But that's something you're forced to do." 267 (salaried, independent, Yr 2)*

*"there's an awful lot more running around after people, collection, delivery, all at our own cost." 264 (owner, Yr2)*

*"it means that the patient doesn't necessarily get to speak to a healthcare professional or engage in their treatment. Because if the driver is just delivering the medication, then it just becomes another delivery. We lose the opportunity to engage and have that conversation, or even actually see how someone is. Most pharmacies will know in excess of 90% of their customers ....many pharmacies are located in discrete neighborhoods and they will see the majority of the same people coming back month after month or every couple of month. You build up a rapport, you recognise them, and if they don't look so well, then you can notice that and you can have a dialogue about that. And then help them and find out what's going on, what needs to change. In some cases, saying, "You've got to go and talk to your doctor." Whereas as if you just do the delivery, the driver might notice ... but quite often they're on a tight time frame and they're just handing the package over at the door the patient is receiving the package at the door. It changes the whole concept of what it's about." 382 (salaried, multiple, yr 3)*

As we outlined earlier, many pharmacists expressed sadness at the demise of the independent pharmacy, which was seen as a consequence of the increasingly competitive environment. Some also

suggested that choice would be reduced in a market increasingly dominated by large multiples.

*"Does that mean choice of a name over a door, or does it mean choice of slightly different services even with the same name over the door. I'd be worried if there was no place for independents of any sort. They definitely add to the mix... they deliver for free....is not the message that a lot of us would want to get out there about what it is we do and the level of training that we've got and the advantage of not seeing a van driver .....but actually to see a pharmacist or other trained staff. We've got trained smoking advisors, smoke cessation advisors, and people like that. It is a drawback in one breath to say to people, "We're looking to provide these enhanced services and we might be doing checks for vascular disease, but don't worry about it, if you don't want to come and see us. We'll just deliver your prescription for free." It really doesn't add up, does it?" 375 (salaried, multiple, Yr3)*

*"our working day, we'd have far more control. We'd probably get back to having proper lunch breaks and things like that. ... that was the nail in the coffin for lunch breaks, when the larger multiples started expecting that the pharmacist would work through their lunch, just so they could keep with the competition. Because if you could imagine on a high street, if you've got a multiple and an independent and the independent was taking a lunch break, the multiple could keep going keep going all day and they could cream off all that lunchtime trade because their pharmacist never took a lunch. So you'd not have the problem of a customer turning up and the pharmacist not being there. So that set the precedent then. Everybody else got on the bandwagon, and you're expected that you'll stay on the premises and have a minimal lunch break." 385 (salaried, multiple Yr3)*

Competition was also viewed as driving pharmacists to undertake activities which detracted from their professional status or made them feel undervalued.

*"So it's all well and good for our profession, but we're also a retail entity as well" 394 (salaried, multiple, Yr3)*

*"we're not treated as part of the health service because we have to sell makeup to make a living. And that's disgusting,*

*absolutely disgusting. .... And I'm sorry, that's the bottom line. And very, very sad."* 153 (salaried, multiple, Yr2)

*"as we have historically done, we say, "Yes, we'll be involved in this pilot, and we're prepared to take 50 pence a throw for this, in order to get some evidence that this actually is doing some good, and patient choice is improved, and clinical outcome is improved." So, it's like, "When the evidence is there, we'll have the jam tomorrow." But, three years down the line, when you're still getting your 50 pence a throw, it does rather undervalue my professional service. And the same is true for other things, isn't it? If we talk about Chlamydia testing and the issuing of antibiotics in that situation, that's now been superseded by a product being available for purchase over the counter."* 384 (salaried, multiple, Yr3)

Having to be available 'on demand' as part of a consumer oriented service was also seen as undermining professional status.

*"it needs more of an organisational structure to it. More of an appointment system. People think where they have an appointment for are more important or authoritative..... if we make appointments we'll have a bit more recognition. Professional, if you like. Whereas in pharmacy you just turn up and fill prescriptions. We should have more of that sort of thing then we might get more recognition."* 380 (salaried, multiple, Yr3)

*"people are very demanding.... they want a word with you, but they're not prepared to wait.... the phone's ringing, you're thinking, "There's only one of me!" ....don't seem to have the same respect as with a doctor in a waiting room and an appointment service."* 238 (salaried, multiple, Yr2)

*"they'll question it and say, "Well, I've looked into it and I've got this," or, "I've got that." Sometimes you're fighting against that.... they've got an article from a paper which has obviously been blown out of proportion, and you try to convince them, and they're not always entirely happy."* 233 (salaried, multiple, Yr2)

Working in small shops, competing in the market encouraged competition and diversity, but it was not necessarily seen as conducive to professional unity and increasing professional status.

*"sometimes the character of the profession can make us a diverse profession. If we want to be taken seriously in the future, our strength isn't in our diversity; our strength should be in our commitment to move the profession forward. And sometimes it means you have to sometimes sacrifice the diversity for a consistency." 394 (salaried, multiple, Yr3)*

*"pharmacy as a profession hasn't promoted itself as well as it could have done. And everybody is responsible for that. ....Pharmacists in society haven't got their act together .... It circulates everybody in the professional body they got to demonstrate their worth. I don't think, other national bodies compare .... The chemists' association haven't always been as good as they could have been at promoting the profession." 384 (salaried, multiple, Yr3)*

However, unlike GPs and their staff and dentists, to some extent at least, pharmacists by and large did not tend to describe themselves as part of the NHS. They were also very much aware of the tensions created by their NHS duties and the requirement to provide responsive services to consumers to compete in the marketplace. Pharmacists often alluded to their relatively lowly status compared with GPs, but at times they also felt disadvantaged compared with other NHS staff.

*"it's a shame for pharmacists that nurses got so much all in one go, when they were allowed to prescribe and suddenly they were doing all sort of things. I think an anger at what's happening towards we're the ones with the degree and we're not doing anything.... A lotta public don't realize how educated we have to be. I think they see us on a par with nurses.... Doctors, accountants, solicitors. We're not put up there, I'm afraid. Which is a pity." 385 (salaried, multiple, Yr3)*

## **6.9 Conclusions**

### **6.9.1 Summary of findings in the context of other research**

Our data (in common with other research<sup>133</sup>) suggest that pharmacists are broadly supportive of the spirit of the new contractual framework. However, Progress on repeat dispensing was relatively slow, although this appeared to be less related to incentives than to the pharmacists' inability to influence the situation. Our findings are consistent with previous research (Ashcroft) which highlighted good working relationships between practices and pharmacies as being crucial to the success of repeat dispensing. Our study pharmacists highlighted reluctance from general medical practices as an important barrier to progress.

Previous research has identified the growth in commissioning of enhanced services found that the impact of the contract had been modest<sup>134</sup> with implementation of enhanced services reported to be variable and seen by SHA and PCT staff as an aspect of the new contract that has gone less well than intended<sup>135</sup>. In common with these studies, we found that many enhanced services were in existence prior to the introduction of the contract. Despite annual increases in the number of services commissioned, many pharmacists expressed disappointment at the modest progress in this area which was attributed to a number of factors, including PCT budgetary constraints.

There was a high level of support for changes which reduced the pharmacist's involvement in what were perceived as routine aspects of the dispensing process. However, despite a willingness to delegate tasks to junior members of staff, many pharmacists described workload pressures which reduced their ability to conduct MURs. Pharmacists reported being under pressure to deliver target volumes of MURs, whilst at the same time, coping with rising volumes of dispensing activity. These findings resonate with recently published evidence of productivity gains in pharmacy with dispensing volumes rising faster than resources<sup>136</sup>.

The financial incentives introduced in 2005 appeared to have been sufficient to encourage a year on year increase in the number of MURs undertaken. However, our findings raise concerns about the quality of MURs. Reports of MURs of variable quality resonate with a quantitative analysis of documented issues and recommendations during MURs, which found that pharmacists reported only a minority of issues identified as relevant by independent reviewers<sup>137</sup>. Wide variation between pharmacists in the completeness of reviews was observed and this was not explained by demographic characteristics or experience.

Government policy emphasises meeting the changing needs of patients and enhancing public confidence in the profession as two of three key challenges for pharmacy. With many users of medicines being knowledgeable actors<sup>138</sup>, a model of MUR delivery, which treats individuals as passive recipients of expert advice, appears to be an inappropriate response to these challenges. However, professional

reflection and adaptation to this changing environment may also be hampered by the third challenge. This concerns responding positively to the ever-changing and increasingly competitive retail pharmacy environment. Where this creates pressure to prioritise income targets over responding to the needs of service users, the potential of MURs to enhance professional status and encourage partnerships with patients appears to be limited. Furthermore, responding to the competitive environment means that pharmacies are increasingly involved in home delivery of medicines. Deliveries have the potential to change the nature of the relationship between pharmacies and the public they serve by severing the physical contact between the two. In such circumstances the public's perception of the pharmacy may be as a supplier of goods, in much the same way that other suppliers offering home delivery are seen, rather than a provider of professional expertise and advice.

## 7 General dental practice – research findings

### 7.1 Introduction

We first present details of participants who were interviewed as part of the study. This is followed by discussion of our findings in terms of the tracer issues we outlined in section 3.

The total number of participants interviewed in general dental practice was 48 (see table 15). Table 16 shows the number of interviews by year.

**Table 15. Dental participants\*†**

	Total number	Years since qualified mean (plus range)	Gender (%F)	PCTs
Principals	30	27.2 (7 to 40)	66.7	8
Associates	15	18 (2 to 36)	53.3	7
Nurses	2	14 (3 to 25)	100	1
Technicians	1	26	0	1
<sup>A</sup> <sub>A</sub> TOTAL	48	23.5 (2 to 40)	25	8

\* The majority of respondents were largely NHS service providers, with the mean practice NHS work comprising 76.2% of practice work. 2 practices offered child only contracts.

†41 were face to face, 7 were telephone interviews.

A small number of participants were interviewed twice see Appendix 6 for further details.

**Table 16. Dental participant interviews conducted per study year**

	Year 1	Year 2	Year 3
Principals	7	17	6
Associates	4	7	4
Nurses	0	2	0
Technicians	0	0	1
TOTAL	11	26	11

## **7.2 Does paying PCPs to do something mean that they do (more of) it? Qualitative analysis**

The dental contract involves a requirement to deliver an agreed volume of UDAs during a contractual year. This appeared to act as a powerful incentive to deliver contract volumes, especially since any underperformance resulted in a clawback of contract payment. However, dentists were unhappy at what they saw as pressure to deliver target volumes and an approach which encouraged quantity over quality. Some dentists mentioned undertaking activities which were in the interest of patients, but not remunerated, although this was rare.

*“So the system, as a whole, has brought a lot of discontent into the profession. They said it was going to be something to get you off the treadmill, when in fact it's a move onto a new treadmill but with a lid on it. Because, if you overwork, you're not rewarded for it, but if you're underworked, you're penalised”. 211 (associate, yr2)*

*“Our sole target is UDAs..... Not any part of it measures or mentions quality, patient experience, or patient satisfaction.” 122 (principal, yr2)*

*“What I do here is 99.9% NHS work, very little private work, and all of that is, and always has been on the treadmill, which is working as fast as you can, as hard as you can and getting through as many people and as much work as you can. Because if you don't, you don't cover your overheads and you don't make much money.... with the new contract now, I'm having to hit a target. If it's anything like last year I under-performed, so I've experienced clawbacks. I've no idea how they decided what my target of UDA points was, and they couldn't explain to me.*



*I've always thought it was a bit on the high side but I wasn't going to argue, so it came to pass that I was under-performed by about 7%. I had a clawback of 3%, and 4% added on to next year's, which is making it fairly tough again this year.... working flat out to try and hit that target, which does put pressure on you." 129 (principal, yr2)*

*"Things like putting fluoride application on young children, if I see a new cavity, I'll see them every month and do it. Whereas I don't get funding for that. There's quite a lot of things I do that I don't get funding for. I've just been doing a domiciliary denture for a 90-odd-year-old in a home. But I've no funding for that, because I've no domiciliary contract. You've looked after them, and you know them. This is something you find in practice, you know their daughter, you know their granddaughter, and the thought of the granddaughter getting a degree.... I couldn't work in somewhere like an access centre, where they just come in and have a tooth fixed and go." 178 (principal, yr2)*

### **7.3 What is the effect of employment status on performance and motivation? How does the distribution of rewards impact on performance and motivation? Qualitative analysis**

Amongst associates there was a tendency for payment to be based on target volumes, although this was not always the case. Whereas principals take profits, associates do not have the responsibilities for running the business which owners have. By and large, amongst associates, there were no ill effects of the arrangements in terms of differentials in rewards. Associates were on average less negative about the contract compared with other dentists.

*"I've noticed a change. Working harder, but that's a good thing, you're pushing yourself further and that's good. It seems to be you have more of a vision now of what you're trying to achieve, rather than treatments which just linger on. At least you've got ideas of where you want to be going. ... He sets me a target; he gave me the option of whether I wanted to be paid by the UDA value or just set me a salary as long as I hit that target....I went for the salary because it was the first year and I didn't know what would happen. I've got a family and a mortgage to pay, so I wanted the security. This is the second year and I'm still on that. We addressed the salary and I got a pay rise, so that's good. But the next year I might look at the UDA value option,*

*but I don't like putting myself under undue pressure, otherwise you start chasing targets." 123 (associate, Yr 2)*

*"Yeah. I am on target at the moment. I started here in August ....so I felt that I should start from scratch and I managed to even set my target and talked to [owner] about increasing my target .... The option was mine as to what I want to do. I decided just to go just with the target and excellently decided I could choose my own target." 124 (associate, Yr 2)*

*"It's not that difficult to earn money with it. Patient care wise, it's easy for them to understand because there are just three bands. It's fairly straight forward for them to understand." 403 (associate, Yr 3)*

*"Well to be honest, I don't really understand.... I sort of trust my principal to work things out." 47(associate, Yr1)*

For those who owned businesses, however, being an owner and one's 'own boss' was a source of motivation. At the same time there was a loss of autonomy in terms of the new contract with dentists reporting that contract values were imposed on them and that the uncertainty surrounding future contract values was a source of anxiety.

*"I just preferred it. It was more freedom, more in charge. I didn't like being an Associate so I did change within two years of qualifying to have my own Practice." 129 (principal, Yr 2)*

*"contract values.....I'm waiting for them to get back in touch with me. They had the letter in December. They should be getting in touch with me to discuss about the new contract, which should be in effect from the first of April. But here we are and the end of January and I've not heard anything from them yet. But it wouldn't surprise me if they left it as late as possible to try and force you into a corner by giving you less and less time for negotiations. But we'll just wait and see." 128R2 (principal, Yr 3)*

*"There's no negotiating.....We did lots of work in advance of the contract, working out what we could do, what we were going for. We'd done all our figures. My husband's degree is in statistics; he'd worked things out. He was in forecasting and*

*we'd worked it all out. Then we went to a meeting and we were given these figures, and there was just no discussion. We didn't even open our folders."* 178 (principal, Yr 2)

A small number of principals indicated positive aspects of the contract. Whereas the uncertainty it created demotivated many owners, for some it reduced uncertainty, acting as a source of motivation.

*"I like the fact that I know how much money is going to be coming in each month. That's a great thing. The great thing about this contract is, when we started, it was three days before I went on holiday. The great thing was, I knew that when I came back, at the beginning of September, I wouldn't have a low schedule like I used to have. That was brilliant. It is great if I go away or do anything, the money's there. All that has done, really, is spread it out over a longer period. The money was there, from what I did in the past. It was just a larger amount this time, less then. This way it makes it easier to budget."* 128 (principal, Yr 2)

For most principals the stresses more than outweighed any benefits. There was also some resentment at the relatively high pay rates of associates with less experience than principals.

*"For every UDA I do they're [associates] getting seven eight pounds more than me, this person can graduate.... within one year he's actually getting more money back for his work than I am, who spent seven, eight years of doing dentistry in the NHS and that's an issue.... how can a dentist who graduated in two years be getting paid more for their work than a dentist who worked seven years?"* 16 (principal, Yr 1)

*"As an associate NHS dentist you might make really good money. As a practice owner who runs an NHS practice you don't make any money because you're the most expensive part of it. The actual dentists who do the work are very, very expensive to provide. And then the nurse is expensive to provide. And the equipment, if it's good quality equipment, is very expensive to provide, as well. .... my accounts show that my associate makes more money out of my business than I do."* 415 (principal, Yr 3)

Some suggested that associates would suffer, in a context where dentists were struggling to maintain income. Others described changing the way they paid associates in order to increase their incentives to hit volume targets.

*"My new associate .... gets paid per UDA. Therefore it's more of an incentive obviously for himself to be hitting UDA.... to spend not necessarily less time with the patient... He's been doing more UDAs than my other associate. The other associate could take an hour and a half over a root treatment. Whereas [new associate] won't do that, because obviously the amount that he's getting paid for doing that, he will adjust appointment times accordingly." 128 R2 (principal, Yr 2)*

*"at the end of the year we'll have these sanctions which will be imposed on us for not getting target. They're lower down the pecking order. And the associates, as they're called, are more vulnerable.... the uncertainty of trying to plan a business is one of the worst things about this contract as well. Not hitting your target, does that mean you simply lose proportionately what you've not created in terms of units of dental activity?" 126 (principal, Yr 2)*

The vocational trainees (VTs) who participated in the focus group in year 3 of the study were anxious about the future job market and career prospects.

*Participant 1: next year there's going to be more dentists coming out. So where are the ones who were trained this year and last year? They're still looking for jobs. You're going to have another 150, because Preston kicks out next year, 70 from there, 90 from Liverpool, and 80 or 90 from Manchester. So all of a sudden instead of having 130 like we used to get, there's going to be nearly 200 odd dentists coming out, looking for VT positions to start with. So that's going to become competitive, just to get a VT position. I know there are some guaranteed VT positions somewhere, but you may end up going to the north of Scotland or deep into Wales.*

*Participant 2: Some people that might be fine for, but some people don't actually want to do that. They want to stay near where they want. Remote areas might be the places they have to go to get the job.*

*Participant 3: They're saying, "There's a shortage of NHS dentists, so let's make more dentists." They make more dentists but then the dentists that have come out they don't really fund them.....*

*Participant 1: you hear about practitioners staying in an area for 20, 25 years and that's the way it goes. That what we all want, I'm assuming, when we went into dentistry. There was like a hope that you'd end up somewhere, you'd get to know your patients and staff, you'd make a lot of money. But the way it's looking, it's sort of like you're moving on, you're moving on, you're moving on. It's sort of like....*

*Participant4: You're moving on? [laughter]*

The contract which pays for a set volume of work and caps the total budget was perceived as a way of controlling dentists and undermining the freedom which they enjoyed as independent contractors, leading to frustration. Furthermore, mechanisms within the contract were viewed as making it difficult for dentists to hit PCT volume targets.

*"They don't like the fact they have not controlled our business. They want control. They want to tell us who we see, when we see them, the sort of patients we see and basically dictate to us what we do in our own businesses. ...we've sunk half a million pounds into this business. It's our business. They want control of it. They now want to put the NHS logo outside if you've got a contract. I don't want my business to look cheap. I don't want an NHS logo outside. I have to have a contract to service children and patients that can't afford it. But they're just trying to take control and tell us what we can do. We've lost control."*  
52 (Principal, Yr1)

*"We've got no control ... we can't charge people for not turning up. We used to charge NHS patients for not turning up, and we had about 1.5 - 2% failure rate. We've now got a 15-20% failure rate."* 53 (Principal, Yr1)

## 7.4 What is the impact on team organisation and relationships? Qualitative analysis

In addition to a shift towards paying associates on a target basis, some dentists reported associates leaving as a result of the target regime.

*"I asked her [associate] to leave, yes. I did note it, I had asked her to leave. We weren't achieving targets." 16R2 (principal, Yr 3)*

Dentists also reported that maintaining hygienists was difficult in terms of a business decision, even though retaining hygienists would contribute to better care.

*"I choose to keep on a hygienist. It costs me a fortune because I really do not get paid for prevention at all. I do it simply because it suits me to do so because patients have become used to it and they would miss it. And it's something that I feel patients should have access to. Without a decent hygienist they've no chance, many people, of keeping their gum condition in some reasonable order. So, I choose to keep a hygienist. Many practices, the first thing that they did as soon as the new contract came in was fire the hygienist... they're expected to do their own scaling and polishing. Whereas a skilled hygienist can provide a very competent level of scaling and polishing and education" 15 (principal, Yr 1)*

*We have had hygienists, but not on the NHS we've actually got a therapist who's started again, because of targets I've had to say no for a while and we'll bring her back in February, March, skill mix has gone completely, nobody uses hygienists in the NHS anymore..... and I say this to patients, there's a massive difference between a dentist scaling and a hygienists scaling, so don't get me wrong it's not we can do it as good as them .... we don't even have the same equipment they have; the hygienist brings their own hand scalers in..... and majority of dentists wouldn't know how to use their hand scalers .... you lose the skill you don't do it anymore and you stop... we can do basic and we can look after it reasonably well but actually the hygienists should be in there, but they're not, never going to come back into NHS 12 (principal, Yr 1)*

*"The hygienist is totally private. Hygienists won't take on NHS work now. They want to be paid a certain fee 25 pounds for it. So, obviously, for one trip on the NHS you only get paid 19 pounds. We can't afford that, so they've got to go private to the hygienist." 173 (principal, Yr 2)*

*"People can be a hygienist, but they train to be a therapist as well. They can do fillings in certain circumstances, and they do a lot more than hygienists used to ever do..... because they're usually taken on on salaried basis rather than an associate, who is paid on a piecework basis. They're usually relatively expensive because you don't know how productive they're going to be." 168 (principal, Yr 2)*

The contract was also seen as restricting practice growth and damaging continuity since UDA volumes (and income) are capped. We discuss continuity below under patient impacts, but continuity also appeared to be important for dentists who wanted to continue to work with valued team members but could not.

*"I can't expand it in any way without me losing money, because there is only a set amount of money coming into this practice from the PCT. I can't employ new dentists without financing." 169 (principal, Yr 2)*

*"I've built my own practice by doing VT and getting VTs who worked in the practice, got to like the practice, the patients got to like them, and you build an extra surgery for them. And then you get another VT the next in. And hence the process began again. You're giving some continuation to the patients and your practice grew, and you sent the forms off and you got paid for the work. Unfortunately now it's capped at this is the amount of work that I've got, and once that's gone you don't get paid any more. So we're not in a position to keep our VTs on here. We spend such a long time nurturing them ..... I feel as if it's just sad, because you've got fantastic dentists that I'd love to keep in my practice that I've spent time getting to a really good standard, for someone else to benefit from all that time and effort that you've put into them....the guys want to stay as well. ... like the setup, you feel at home." 415 (principal, Yr 3)*

Changes to relationships were not confined to dental practices, but also involved changes between practices and the PCT. In a context where PCT agendas have long been dominated by acute sector

targets the impact of new contracts also brought changes within PCTs.

*"Unfortunately [PCT monitoring] isn't so much, at the moment, what it should be, all of the, the nice things like whether they've invested in the practice, whether they've had some good staff training, whether they're producing good quality outcomes, it's more about, the only outcome is UDA and if they don't achieve the number that they were agreed with, then they have to pay it back... it's just an arbitrary financial indicator, really. They need a broader range of indicators, and they need to tell the PCTs that they shouldn't be just looking at one indicator. And, if there's been an underperformance, they should take into account other issues. But they don't." 32 (PCT Dental Adviser, Yr 1)*

*"I was summoned regularly to the chief executive to explain shortfalls in access. And it was blissful. For the first time in my professional life, they knew I existed. And it's remained that way ever since, although I have a sneaking suspicion that once I resolve this problem I shall have to crawl back into the woodwork, never to be listened to again.... We are very aware of this brief moment in the sunshine....where I work, we are fixing our roof while that sun shines. We are spending a lot of money. We are busy making sure that we stay on the agenda. We are being very noisy. Hopefully, we are being successful, in the knowledge that in three or four years' time no one will listen to us again." 278 (PCT Dental Adviser, Yr 3)*

## **7.5 What surveillance mechanisms are in place and how do these influence responses /attitudes to incentives? Qualitative analysis**

PCTs have a duty to monitor the performance of primary dental care services in their areas. The Dental Reference Service provides PCTs with direct clinical evidence of the quality of patient care and record keeping. It does this by conducting practice visits and examining a randomly selected cohort of patients and records. Visits may also include a practice inspection. Dentists did not appear to find this overly intrusive.

*"We had a chap about eighteen months ago. He came and looked at both our patients, and notes, and the practice...I've seen him before. He's a lovely chap. It was great. No problem. Very positive. He just gave us advice on bits and pieces,*



*reporting notes, treating patients, and stuff like that, which is great. It was a day well spent with him. He was very good. I've had the place inspected as well. The PCT chap has been around and checked on things. We passed with flying colours, which you should do really. Seeing as it's two years old and purpose built for the job. So it's great. I'm very happy."* 129 (Principal, Yr 2)

*"This time we were fine. I mean, we got a very good report .... She came in for two days, she was very thorough. I thought it was very fair. We were allowed to pick our own patients..... I thought it was a very fair system."* 122 (Principal, Yr 2)

*"if they just ask to see notes then they're actually monitoring really just how good your notes are, and they don't know how good your work is. Like the old system where they would just send six patients in to be examined, that definitely did check on quality, because they just saw the patients and you were only let know once they'd been called. So now we send notes down and they come back with comments like, "You didn't date this x-ray," or something like that. ... it's all about the notes rather than seeing the patients."* 178R2 (Principal, Yr 3)

Dentists reported that self monitoring in terms of contract UDA volumes was a source of stress. The view was expressed repeatedly that monitoring on UDA volumes was a poor way to assess performance. Many dentists bemoaned the fact that prevention was not incentivised although they admitted that this activity was difficult to monitor.

*"The monitoring process that's gone on since this contract change has completely changed, hasn't it? The way the Dental Practice Board works now on BSA, they just basically monitor the paperwork. If they think that somebody is submitting two week late to the same thing it just advises the PCT and the PCT will take its own action. The PCT ought to police its own thing, shouldn't it? And at the minute the only way to do that is with UDAs. How many do we do in a year? Did we do them? Yes, that's fine then."* 122 (Principal, Yr 2)

*"All of these UDA figures have to go down to the dental reference service. They have to go to the PCTs. They cause so much havoc. She spends hours sorting this out. I'm sure you've heard that from everybody. If they haven't had a practice*

*manager, I don't know how they do it.... my colleague, who has been in the NHS for 30 years, the last two years has been driven solely by UDAs. His prescribing profile has changed as a result of having to get UDAs. He now has to think "How do I get the maximum UDAs for that?" 127 (Principal, Yr 2)*

*"UDAs, UDAs, UDAs. Everything else is secondary. And the staff realise that because it's their jobs. And the contract owners realise that and the associates realise that. And that's it, really." 126R2 (Principal, Yr 3)*

The fact that the evidence base for much of clinical dentistry is poor has meant that evidence based guidelines and practice has lagged some way behind medicine. However, the dearth of evidence in many areas does not mean that dental practice is a guideline-free environment and increasing controls in the form of guidelines were a source of resentment.

*"We are given warnings. If I want to see a regular patient who I have seen for 20 odd years from a small child and they are now bringing their own children in, that patient will expect to, because they always have seen me every six months. I've now got to turn round and say, "Well, actually, no. I really can't see you for two years." ...Are there any papers relating to how frequently an average white male 30 years old should be seen? The only papers that will come back will suggest it's 12 months maximum, not two years. The two year business came about because NICE held back their guidance, or their advice, until the government had decided how much money was in the pot. And then when Gordon Brown said, "It's going to have to be two-yearly," NICE said, "Yeah." NICE guidelines are every two years for most people, and that's wrong, because it's just purely based on money. And if they had the guts, to come out and spell it out and say, "We can't afford to see people like this." But to try to disguise it with quasi-scientific evidence, which isn't evidence of any type... the NICE guidance on check up frequency is not evidence based. And that's where the whole thing starts from. Then to go around and say that there is plenty of time for prevention, that's a complete lie. It's an out and out lie<sup>viii</sup>." 15 (Principal, Yr1)*

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<sup>viii</sup> Whereas traditionally many patients have been called in for a check up every 6 months, in 2004 NICE produced guidelines which recommended that rather than a blanket 6 months, 'the interval between oral health reviews should be determined specifically for each patient and tailored to meet his or her needs, on

## 7.6 What is the effect of incentives to improve processes of care on patients' perceptions of care/services provided? Qualitative analysis

Many people reported experiencing no problems with accessing an NHS dentist and there was support for NHS dentistry which was seen by many as comparing favourably with private provision.

*"she told me that that's the last letter I will get, and in the future it's up to me to organise with her. And she'd been the traditional six month check, and she's now advising people how long she thinks each person needs before they're checked again, given the status of their dental health. So we agreed that I would go again in a year's time. So, in fact, I need to be getting around to making that appointment now.... I'm an NHS patient of this particular dentist now.... Previously, I'd been with a dentist in [city], and he had ceased his NHS practice altogether so I'd been a private patient of his. And he was one of those dentists who lost no opportunity to do anything that he could charge for, so he was always playing with new gadgets and new interventions and so on. And he always found something he could do.... whereas my present dentist in [city] is kind of a complete contrast.... But she seems to be technically very good, and is always very concerned and knows me and is fine. And certainly, she's never tried to encourage me to be anything other than an NHS patient." PT1 (Male, age 61)*

Some patients reported being forced to opt out of the NHS when their existing dentist gave them little choice in the matter. However, experiences and opinions differed on this, with some patients very upset and others having experienced private provision, being pleasantly surprised.

*"they got greedy. I didn't like them changing to private, that was it, that was the big one. Well it's now a monthly payment and you get a couple of appointments out of that ... I think I ought to look for another NHS [dentist] you know." PT 27 (Male, age 61)*

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the basis of an assessment of disease levels and risk of or from dental disease'. See CG19 Dental recall: full guideline <http://www.nice.org.uk/nicemedia/pdf/CG019fullguideline.pdf> for further information.

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*"Now at one time I was on the NHS and then she just said to me one day, she said, "Look, you're having to come in so much that to be honest, we don't think we can afford to keep you as an NHS patient." She was very honest about it. She just said, "Look, we'll do this practice plan," which is a sort of thing where you pay on a... I pay yearly. I pay a lump sum. And she said it would just help. And she said, "I don't want to let you down by not giving you all the support you need for your teeth because you've got difficult teeth." So I said, well, that sounds fair enough and I can see, and I want to keep going to this practice and I want to have the same sort of treatment that I'm getting now. So that's what I did. So in effect, I'm a private patient and all sorts of things have happened. I've had a crown. I've had an implant. Both of which with quite expensive medication. But always, always, they're extremely good at explaining what's going to be done and what isn't and giving me options. And what I really, really liked is it's such a stark contrast to how I was treated with asthma. Inasmuch as when it came to telling you about what was going to happen to you and .... They even gave you diagrams. They gave you models of the inside of your mouth and things like this. Which to me, because I'm a bit of a creative person, actually having something physically to see and look how things function was marvellous." PT12 (Female, age 52)*

## **7.7 Are there any unintended consequences for patients and will they have differential effects which disadvantage or privilege particular patient groups?**

### **Qualitative analysis**

Dentists described a number of adverse consequences of the contract. These included loss of continuity, patients having to pay more or delaying treatment and patient access problems. In particular, patients with poor dental health were likely to suffer most and since these patients are likely to come from areas of high deprivation, policies are likely to further disadvantage patients who are already amongst the most disadvantaged groups in society. New patients in general were reported as being avoided due to the financial consequences of taking on a patient with high needs where rewards were not seen as commensurate with effort.

*"And lots of the patients have said to me, "In the past three years I've had three different dentists. How long are you here for? How long are you going to be staying for? I got to know one dentist." And it's quite trusting between the patient and the dentist. You get to know one dentist and six months later you've*

*got another dentist, 12 months later another dentist. It's the way the funding's allocated and it's always the patients that suffer." Focus group Participant 2, Vocational Trainee*

*"They'll [patients] leave things just to be - they won't do a filling at the moment because it's not too bad. It might last another three months." 128 R2 (principal, yr2)*

*"we're not going to take on patients who might need ten fillings, three root treatments and a couple of extractions. It would take hours and hours to do all of the treatment to achieve the same amount of UDAs as we would if we did one filling on a patient. It's a no-brainer if you're wanting to actually hit your targets, and you want your patients to be able to see you within a certain timeframe. You can't afford to take on NHS patients who you're going to have to spend hours of work on. Unfortunately, the patients who haven't seen a dentist for years are finding it more and more difficult to find a dentist... In some ways you feel bad about doing it. I've worked within the NHS for 23 years. Ideally, I'd like to provide NHS treatment for all of my patients. We had an old lady coming in before who needs a lower denture realigning. Because she hasn't been in for so many years we can't see her on the NHS. These are the sort of patients that I would happily provide treatment for on the NHS, but we can't make exceptions to the rule. We have a policy in the practice and we have to stick with it. So, access wise, no. We see three emergencies a day here, which is what we contracted with the PCT to provide." 128 (principal, yr2)*

*"But when you're taking on new patients, you're accepting, potentially, somebody who can take up 10 hours of your time and give you significant lab bills for 43 pounds 60, or something like that, which seems ludicrous to me. I just don't see how anybody could think that could work. I don't think it's fair that someone should have to pay 43 pounds 60 for one filling when someone else is getting ten fillings for the same price. ...They shouldn't be put in a higher category to increase revenue to cover other people's health care needs." 124 (associate, yr2)*

*"Things like molar root treatments, you've probably heard of them. You get three UDAs for them, and you could be spending two hours trying to get all the nerve out and root filled....that's just not financially viable to do that, so we send them over to the dental hospital, but there's the waiting list." 168 (principal, yr2)*

*"They can't give you more UDAs, so the argument is we want an incentive for new patients. Do we say, "Well, here's 50 quid for every new patient you take on." 182 (principal, yr2)*

*"Practitioners now are trying to sort of protect their contract values and in fact we tend to sort of decline to see new patients because we are frightened... until you examine them, you don't know what you're taking on board, because you find you've got a patient that needs, on the old model, a thousand pounds' worth of treatment, and at the best you're only going to get 150 quid's worth of money to put it right. That model isn't going to work, is it? a car dealer wouldn't take that on. "I've got a car 'round the back I want you to buy for 150 quid, and by the way, I'll show you the car once you've said, 'Yeah.'" They're going to go, "No! That's not a business model!" 193 (principal, yr2)*

*Patients pay an awful lot more now than they used to do....than ... on the old system, definitely. Yeah, we noticed that. The amount we're banking each day has gone up. I think especially because we have quite good mouths. We get a lot of patients that just need the odd filling doing. My average is 46-something for one filling. Whereas if you're in an area that had poor mouths, people could be paying that amount of money for three or four fillings, which on the old scheme that would have been a lot more than mine were paying for one filling. So certainly the patients have been paying a lot more money. 178R2 (principal, yr3)*

## **7.8 Is there evidence of ceiling effects or the pursuit of target, as opposed to maximum, income? And is there evidence that PCPs are willing to forego income in exchange for other things? Qualitative analysis**

Many associate dentists are contracted to deliver a specific volume of activity and most principals reported having to work very hard ('on the treadmill') to maintain contract activity in order to maintain income streams in line with previous income patterns.

Where dentists delivered activity below contract volume this was usually reported as due to the targets being too high rather than a choice to underperform. Underachievement also prompted principals to revise incentive structures for associates in some cases.

*"Then the PCT came along and wanted to claw back, because we weren't able to hit our targets last year... my agreement with my associate is that he just got paid on a monthly, sessional basis. He had a set salary and anything he earned privately, on top of that, was split, and that went to him as well.... The new guy is getting paid on how many UDAs he does, so much per UDA. So from that point of view, it's more of an incentive for him to get the treatment carried out then, rather than rebooking the patient. And if he's got a gap, then he'll get something sorted out then. So it's looking like the number of UDAs is increasing" 128 (principal, yr2)*

### **7.9 What is the impact of size of organisation? Are there free-rider effects in larger organisations and if so, how are these dealt with? Qualitative analysis**

The dental practices where our participants worked were relatively small organisations. Comparing interviews in year one with those in year two there was a move towards paying associates to meet target volumes. However, there was no suggestion that underperforming dentists were 'free riding'. Instead their shortcomings were described in terms of not being used to working in a volume focused way.

### **7.10 What is the potential for 'gaming' the system and is this exploited in practice?**

There is potential for gaming the system. In part this arises because of the shift away from around 400 payment categories, reflecting time and effort required, to a system involving a small number of UDA bands. There are incentives therefore, to choose treatments within a UDA banding where the rewards are high relative to the costs as opposed to selecting on the basis of clinical factors alone.

#### **7.10.1 Qualitative analysis**

Many dentists acknowledged this temptation and even amongst those who claimed not to do this, there appeared to be an acceptance that under the new contract such behaviour was understandable. There are also incentives to stage treatments in order to increase income. Sometimes dentists reported that PCTs had advised them to do this.

*"I could see a regular patient needs one simple filling, and I get three UDAs. I got a new patient coming in needing 12 fillings, I still get three UDAs." 194 (principal, yr2)*

*"I'm not likely to be offering a bridge, where I used to offer a bridge. Purely because it's costing me more in lab work, and it's just the nature of the beast. Yes, we should do it, but human nature tells you why are we going to be spending a lot of money on lab work? It'll be more in the payments I'm paying out, than I'm actually getting in the UDAs". 128 (principal, yr2)*

*"if a patient comes in and just needs one filling doing, you get three UDAs. If a patient comes in and they need every tooth on their head filled, they get three UDAs. So what do some of these youngsters do and some of the foreign ones that are coming here purely for money, but us as well, do one filling, then get back in a few months time and then do another?" (emphasis added) 127 (principal, yr2)*

*"Root canal has become a lot less attractive ....You give patients options as to what they can do. Obviously, you're the one giving advice, and it is at the back of your mind. .. root canal, to me, is only worth three points, which is the same as a filling. Yet, it takes a much longer time" 130 (principal, yr2)*

*"I just noticed today, in the mail, Mike had a new patient last week, and he needed 16 fillings and two root fillings.... And we thought, "No crowns anyway, so he's only going to come in at band two." And he contacted the PCT, and I just noticed today, she sent him a photocopy of: "I have someone who's recommended that you can break these down into staged treatments, so you get the oral hygiene and an amount of paying the stage one, and then you can maybe sign that off and see how they go on, and then do a stage two." 178 (principal, yr2)*

*"The banding of the UDA system is ridiculous, when a molar root canal treatment done to the standard that we're supposed to work to would normally take about an hour and a half of treatment time. And I could take the tooth out and get the same number of UDAs. Which do you think we would suggest...? Both will achieve the same result. Both will get the patient out of pain." 168 (principal, yr2)*

We also examined this issue in our quantitative analysis.



### 7.10.2 Quantitative analysis

These findings resonated with participants' remarks. For example there were decreases in bridgework, crowns, root fillings and radiographs and a rise in extractions following the introduction of the contract (Figure 8). Crown and bridgework require expensive support from dental laboratory services. These declined sharply in 2006/07 followed by a slight upward recovery in 2007 and 2008. A dentist is paid a standard number of UDAs (12 UDAs for crowns) regardless of the number carried out, even though each procedure requires lab work which incurs costs for the dentist. The number of radiographs also dropped after the introduction of the contract. Dentists receive 1 UDA for a check up with or without radiographs. Since X-rays have a material cost and an opportunity cost, there is a disincentive to take X rays.

#### Data sources and analysis

Data covering the years from the start of April 1992 to the end of March 2005 were obtained from an archive of the data from the Dental Practices Board. Next, data for the period covering the year ending March 2006 were obtained from the NHS Information Centre (IC) website (1). Finally, data on interventions for the years ending March 2007, 2008 and 2009 were also obtained from the NHS IC website (2,3,4).

The analyses were conducted using data from three originally separate datasets: the "Old contract" (April 1992 – March 2005); the "Transition contract" (April 2005 – March 2006) and; the "New contract" (April 2006 – March 2008) datasets. It is important to note that there were some important differences in the data collection between these datasets. The "Old contract" dataset reports the total numbers of interventions based on a sample of patients. In contrast, the "New contract" dataset collated data on the number of Courses of Treatment (CoT). One CoT is potentially made up of several interventions and therefore the "Old contract" and "New contract" datasets are not directly comparable. However, using data from an IC report on banding (which reported the number of interventions per 100 CoTs), it was possible to produce estimated values for the number of interventions for the "New contract" (5).

More recently, the IC have published similar data measuring the number of interventions per 100 CoTs using data routinely collected from dentists from April 2008 (covering the year ending March 2009) (6). For completeness, these data were used to produce estimates for the years ending 2007, 2008 and 2009 of the number of interventions based on the number of interventions per CoT (as detailed above).

In both the "Old" and "New contract" datasets, numbers of interventions were collated for a selection of procedures (which were identically defined in the two datasets). Whilst, the "Transition

contract" dataset measured the activity for a similar selection of procedures, it is not clear whether these procedures are defined in the same way as in the "Old" and "New contract" datasets. Fortunately, the original dataset used to produce data for April 2005 – March 2006 actually contained the number of interventions for the years ending 2005 and 2006. Therefore, it was possible to approximate the change from 2005 to 2006 for each procedure (or an appropriately similar procedure, e.g. data for small x-ray claims were used to estimate a value for all radiographs). These approximations were thus used to estimate the likely number of interventions that would have been observed had the same data collection methods and definition of outcome been applied as had been up until March 2005.

1. <http://www.ic.nhs.uk/statistics-and-data-collections/primary-care/dentistry/nhs-dental-activity-and-workforce-report-england-31-march-2006>

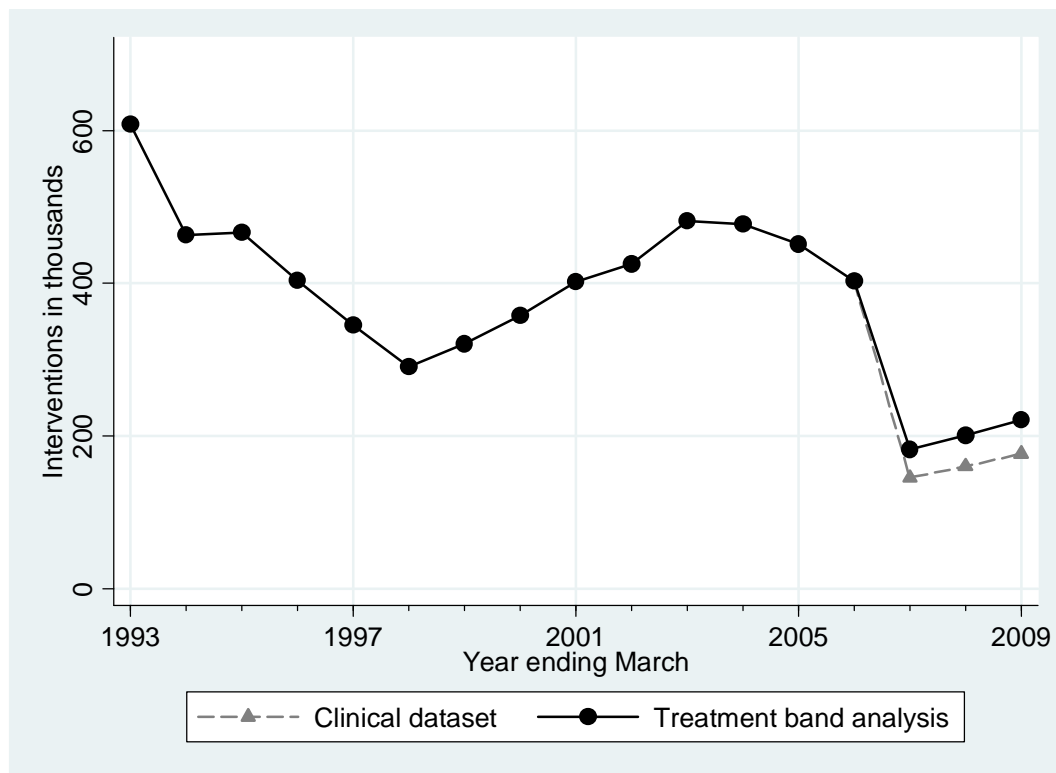
2. <http://www.ic.nhs.uk/statistics-and-data-collections/primary-care/dentistry/nhs-dental-statistics-2006-07>

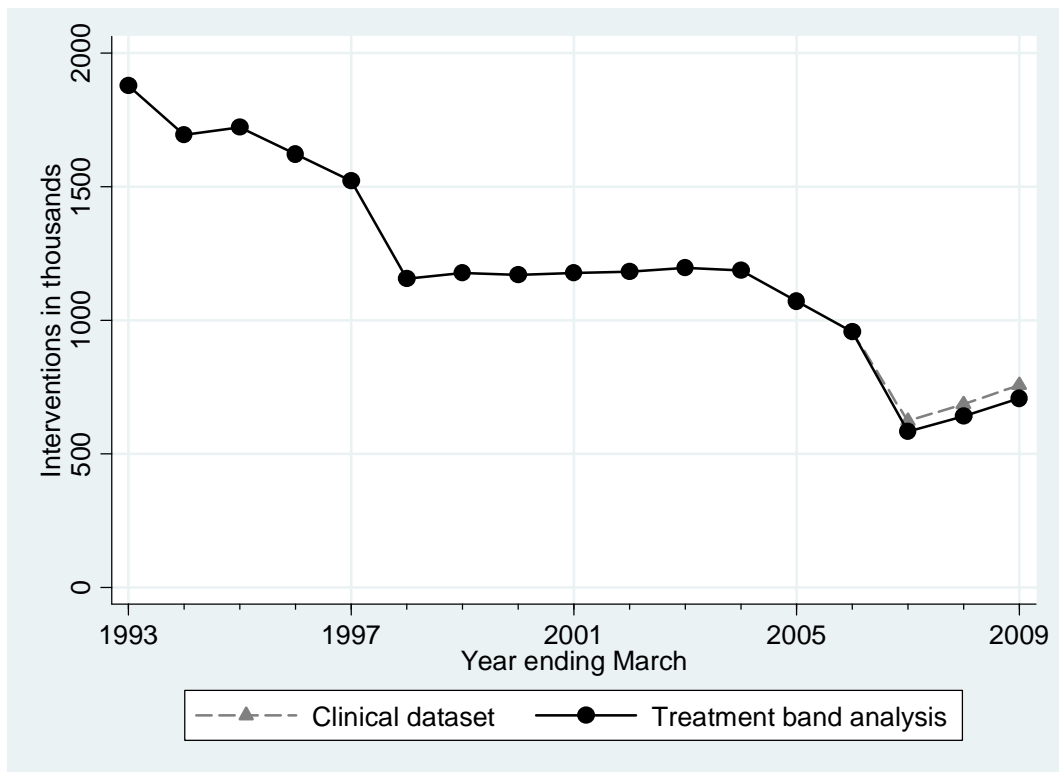
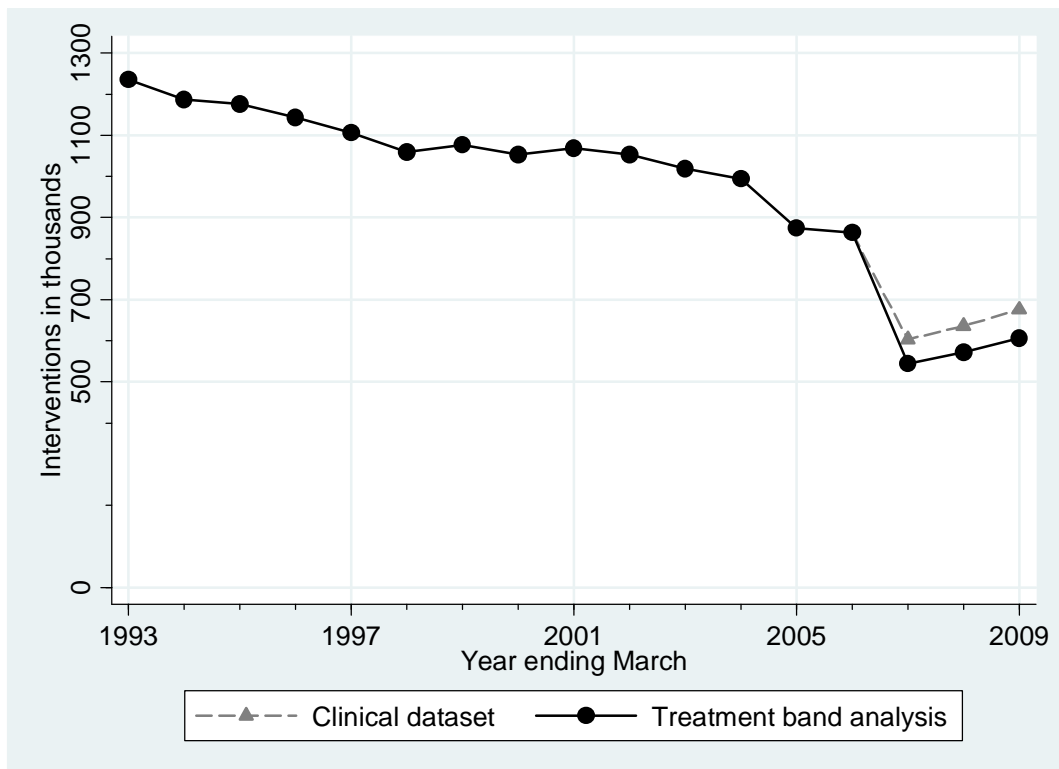
3. <http://www.ic.nhs.uk/statistics-and-data-collections/primary-care/dentistry/nhs-dental-statistics-2007-08-annual-report>

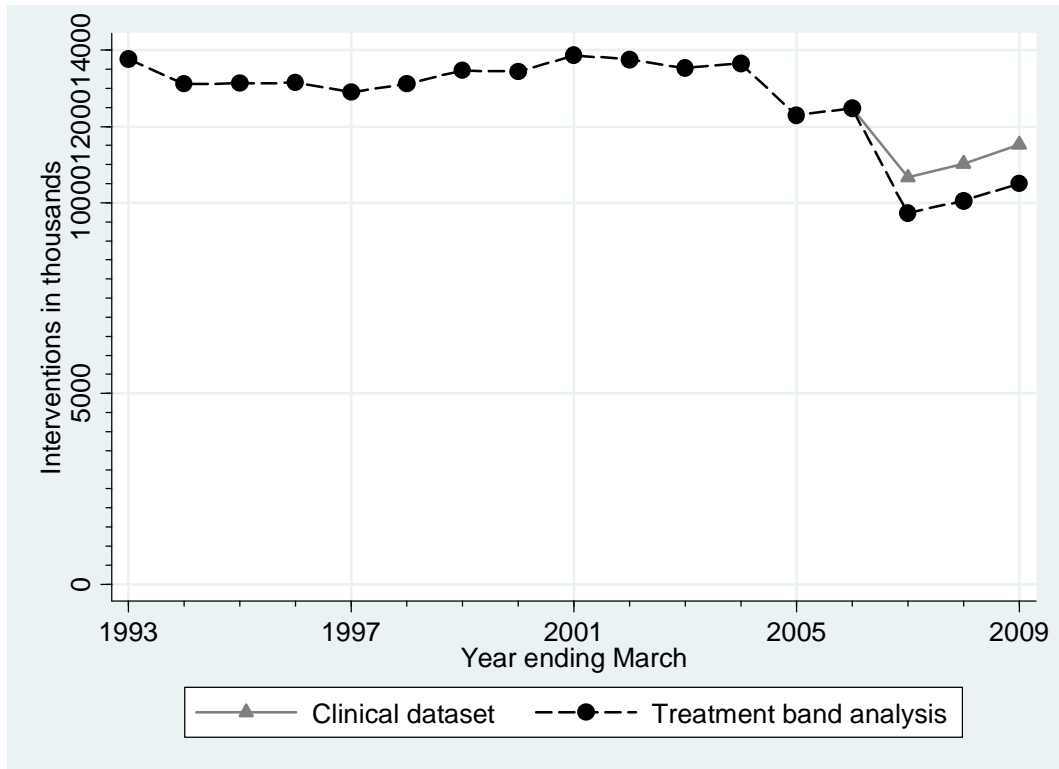
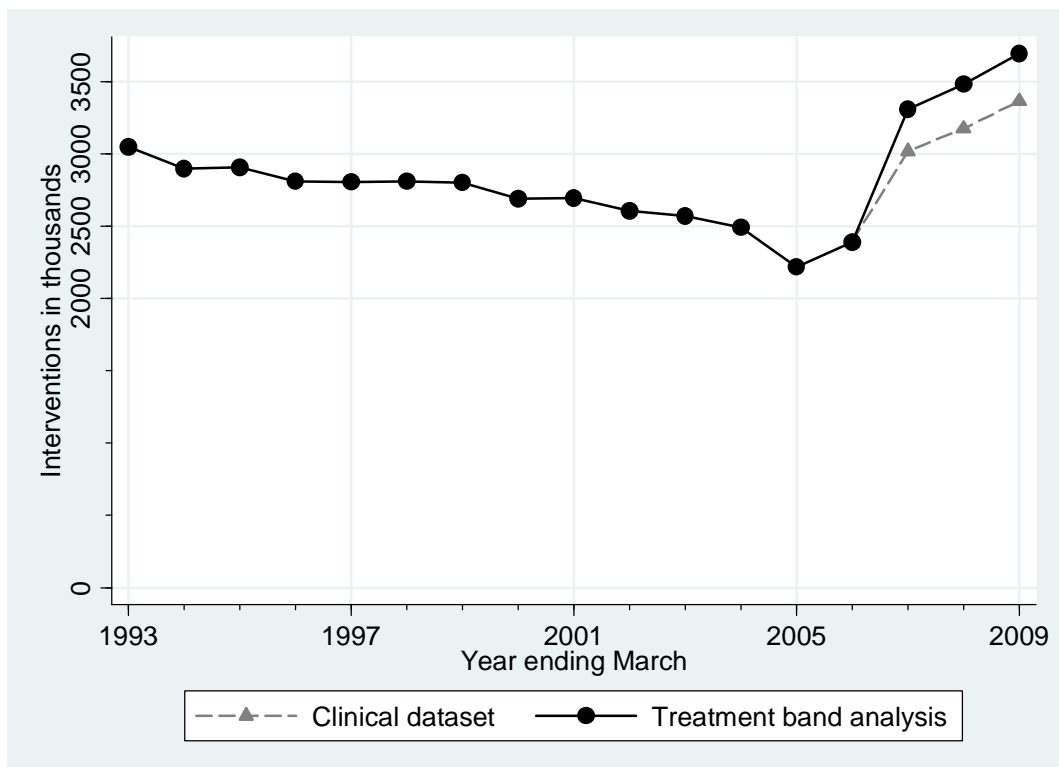
4. <http://www.ic.nhs.uk/statistics-and-data-collections/primary-care/dentistry/nhs-dental-statistics-for-england:-2008-09>

5. [http://www.ic.nhs.uk/webfiles/publications/dental/ba/Dental%20Treatment%20Band%20Analysis%20England%202007\\_Preliminary%20Results.pdf](http://www.ic.nhs.uk/webfiles/publications/dental/ba/Dental%20Treatment%20Band%20Analysis%20England%202007_Preliminary%20Results.pdf)

[http://www.ic.nhs.uk/webfiles/publications/Primary%20Care/Dentistry/clinicaldental0809q3/Provisional\\_Clinical\\_Dental\\_Report\\_England\\_and\\_Wales\\_Quarter\\_3\\_31\\_Dec\\_2008\\_Experimental\\_Statisticsv1.1.pdf](http://www.ic.nhs.uk/webfiles/publications/Primary%20Care/Dentistry/clinicaldental0809q3/Provisional_Clinical_Dental_Report_England_and_Wales_Quarter_3_31_Dec_2008_Experimental_Statisticsv1.1.pdf)

**Figure 8. Number of bridgework interventions vs. year**

**Figure 9. Number of bridgework interventions vs. year****Figure 10. Number of root-fillings vs. year**

**Figure 11. Number of radiographs vs. year****Figure 12. Number of extractions vs. year**

Our findings are consistent with economic theory that suggests that professionals will respond to changes in financial incentives. Our data show a clear decline in treatments for which remuneration is relatively low compared to the effort involved. Similarly as we discuss, the large increase in extractions appears to be a direct response to reforms which make such changes attractive from a financial perspective. It could be argued that in the absence of evidence surrounding optimal treatment, drawing conclusions is difficult. According to this stance, since the evidence base for much of clinical dentistry is very poor, less complex treatment may be more conducive to dental health. Whilst national adult health surveys show that majority of patients would prefer complex restorative care to losing a tooth, as with other aspects of NHS care, NHS dentistry is not geared entirely to patient 'wants' and the question of what the goals of the service are (provision of a restricted range of treatments for everyone or a full service for those on low incomes) has never been resolved. However, it seems unlikely that the large increase in extractions is due entirely to a Damascene conversion to simpler treatments, which coincidentally occurred at the same time as the new contract was introduced. Combined with our qualitative data these quantitative analyses provide strong evidence that changes in dentists' behaviour reflect a desire to generate income rather than reflecting clinical factors or patient preferences.

### **7.11 In what ways do policies to increase choice and competition impact on PCP behaviours and attitudes? Qualitative analysis**

Our interviews suggested that dentists were not unduly perturbed by policies to increase choice and many worked in the private sector or had a share of income from private sector patients. Some reported that the contract had managed to bring dentists together. Although others complained that compared to GPs, dentists were much less organised in terms of a collective, unified, grouping.

*"We didn't used to have colleagues, we used to have competitors and it was very much everyone was in competition with everybody else. If I didn't get a patient, then they went to the competitor round the corner sort of thing.... So in one respect, it's been a very good thing. Out of sheer terror it's brought people together, at least to kind of huddle together for safety, as it were" 15 (principal, yr2)*

*"you look at medics and the GPs and the way they've arranged their contract. They seem to speak with one voice, medics do, but dentists don't." 415 (principal, Yr3)*

*"everybody I speak to is moaning about it. They're moaning. But most of my friends ... they're winding down towards retirement or they've all done conversions and are in private practice. They've got out..... on the medicine side, for doctors, the BMA seems to carry quite a bit of political weight" 211 (associate, Yr2)*

However, in interviews conducted in the second half of the study, there was some evidence, that PCTs were starting to overcome problems associated with dentists leaving the NHS.

*"We've had it twice, on the patch, where practices have gone private. And we have established dental help lines, we've put notices in the press, and we have recommissioned additional UDAs from local practices to pick up the urgent care. An, we have also, then, put a temporary provision in place. And even into the evening and the out of hours period, where we've commissioned additional UDAs interim to getting a new practice in place. So, it doesn't scare us, as such. I mean, ideally you would want some notice that a contract is going to wind down, but invariably you don't get much more than three months' notice. If you are terminating on the basis of performance, it might be that if the performance level isn't good, then you have no choice but to do it at that stage. But, you generally have a feel for whether there is extra capacity elsewhere, et cetera, and you have that flexibility to be able to put temporary services in place interim to going out to tender. .... So, we've done it, it doesn't faze us." 241 (PCT dental commissioner Yr2)*

*"So, from the PCT's point of view, the problem is solved; that access problem is gone. And that's partly why this money is now being diverted into medical care. And we also found, at the last couple of meetings we had, there was a change in emphasis. They're suddenly not bothered by whether dentists are on board or not with what they're doing, they're doing it....things are changing." 48R2 (principal, yr2)*

Whereas Calnan et al<sup>103</sup> found dentists feeling very uncomfortable at the prospect of leaving the NHS and/or private practice, amongst our dentists there was an acceptance that this may be preferable to being reliant on PCT contract income. Not only did this increase autonomy but it removed the treadmill of NHS dentistry resulting in an improved quality of life for dentists. Patients were also described as benefiting.

*"one of our dentists is moving away. So, this year, I expect it to probably be down to about 35 percent NHS. Later in the year, the other dentist is probably going to reduce her commitment as well, because of the uncertainties. I think it's nicer. We've got time now to be able to explain this to patients. It's given us a lead, and now it's no surprise to patients that this [conversion to private practice] is happening. We're, therefore, planning ahead. We can take our time and spend it totally with the patients, rather than having patients come round next April, and then PCT saying that they're going to reduce the cost per UDA to such a level that we can no longer tolerate it. We would have to pull out all of a sudden, so, we're already planning to move away." 194 (principal, yr2)*

*"going down the private avenue allows you to be seen quicker. Whereas the difference between NHS dentistry and private dentistry is not simply that you can get an appointment quicker. ...the improvement in the techniques and materials available to us is something that the government don't seem happy to fund. And I can also see their point, because if they've got a limited sum of money, how much of that should be allocated to teeth as opposed to cancer patients and elderly people that are waiting for operations for hip replacements and things like that. Maybe the guy who didn't look after his teeth shouldn't get dental implants or shouldn't have a row of fancy crowns or fancy dentures." 214 (principal, yr2)*

*"You see some people who have got absolutely superb dental work, A-one, top quality .... you think, "Hmm, they must have been done privately," because we can't spend all this time in NHS... you don't spend as much time on the finesse of the things that you do. I'm very much of the opinion of keeping people dentally fit, making them nice and comfortable, keeping them pain-free. I'm not onto this fine finesse bit. But if you knew me as a person, I'm not into hairstyles and makeup. Aesthetics isn't a thing for me personally. It's more about comfort and health." 178R2 (principal, yr2)*

The private sector was also seen as offering the potential to provide better treatment and threatening to go private was also a useful tool in contract negotiations.

*"They improved it because I'd actually put, in effect, almost a notice in to say I was going to move away from it. And what they did - if you remember, my problem was the value of the*



*contract, the UDA value, was poor. And strangely enough, I've been discussing this and speaking to them over a long period of time, but once I'd sent the email in saying it's going to be better if I leave because it's non-viable, they changed the UDA value overnight. So that was extremely helpful." 16R2 (principal, yr2)*

Amongst the vocational trainees, there were fears that the contract with its capped volumes was the start of a process seeking to drive dentists away from the NHS. At the same time, almost all of the VTs expressed a wish to develop a career in NHS practice.

*Participant 6: It feels like the money's eventually going to stop and the NHS is going to say, "We can't afford dentists any more. You're all going private."*

*Participant 7: I think that's what they want.*

Dentistry was also described as different to other parts of the NHS, which were free at the point of need and where competition was not an issue.

*"I do believe in the NHS. I was taught that you have to provide care for patients. ... Because I see patient care that way, and I've done it that way for 20 years. ...I still am very committed to VT and the NHS. And you have to have a NHS system. But the difference between dentistry and the medics is the fact that patients pay when they come to the dentist that don't pay when they go to the doctor. And they feel like if they're paying something, it's not really a free service. And our businesses are so different you can't really compare them to practices." 415 (principal, Yr3)*

*"people are always asking, "Can I have a superior quality crown done privately?" "Can I have a bridge rather than a denture and pay the difference?" It just can't be done. It never has been a realistic option. And it would be so simple to administer. I don't know why that can't be done. But then we get the new contract, which is the biggest lash-up since time immemorial." 168 (principal, yr2)*

*"now to pull out of NHS, in some ways, it's easier because of patient perception. They've read about it and heard about it. They know that if they don't have a dentist, they're unlikely to find a dentist. However the other side of the coin is those*

*patients are the ones that aren't particularly loyal to a practice or a dentist and they just want to go anywhere they can to get their treatment". 127 (principal, yr2)*

Whilst patients in general were seen as more demanding, some dentists suggested that this could be worse in a private setting where patients acted in a more consumerist manner.

*"people have become more demanding. Patients who you think you have done a good job on turn around and bite you and sue you, then you are very guarded then.... patients who you think you have done a good job on turn around and bite you and sue you, then you are very guarded then.... it's very stressful and a couple of my friends have already died of stress. One has killed himself." 92 (principal, yr2)*

*"with the private treatment, the patients can be more difficult and demanding. I suppose that's one of the more negative parts to it." 173 (principal, yr2)*

Amongst dentists who were loyal to the NHS, fears were expressed that new entrants to the profession were being socialised into a system of private provision. At the end of the focus group session one experienced dentist who had just left the NHS told the trainees that it was really difficult to make a living in NHS dentistry today and that they should not plan on this for a career. This resonates with the view expressed below, in terms of the influences on trainee dentists.

*"They are taught effectively by senior lecturers, who when they're not working in the university are working in private dentistry. It's very noticeable, their influence, which is very high. It has a great influence. Yes, they've got wonderful standards, I quite agree, and that's fine. But not for everybody. It's a limited number of people who they're targeting. When ... I met 40 or 50 at least per year who were qualified dental surgeons who were vocational trainees. I didn't meet one who was really happy to carry on in the Health Service. Really, they were all looking to the private sector. And their tutors have said, "Well, you can't do the standard of work that I'm showing you to do except privately, and therefore you should do that." 177 (Principal Yr2)*

## 7.12 Conclusions

### 7.12.1 Summary of findings in the context of other research

The dentists in our study reported the contract as having a major impact on their way of working, with a focus on UDA targets resulting in important and undesirable consequences for patients and dentists.

Our findings of resentment and frustration resonate with a recent survey which reported the reforms as having a negative impact on dentists' job satisfaction and morale<sup>139</sup>). The view of the contract as flawed and impacting adversely on access to dental services had also received support from a recent independent review of the contract<sup>59</sup>. This recommended a new contract, with a proportion of payments made for activity to incentivise provision of treatment and a proportion of the contract to pay for quality to improve access, provide effective preventive care and ensure continuity of care.

At the same time, newspaper headlines reporting the high incomes of principals ('one in every 30 dentists earning more than a quarter of a million pounds'<sup>140</sup>) suggest that these dentists are able to make a living under the new contract, although as we describe, there are unintended consequences associated with this.

Although associates are reported as earning much less than principals, we did not detect any resentment from the former group towards the latter. In part this may be due to associates making tradeoffs between income and quality of life, by avoiding business ownership. These figures do suggest also that it might be in the interests of principals to communicate the stresses and strains of NHS contracts to the dentists working for them to justify their relatively high incomes and to retain such staff as associates within the business.

In common with Calnan et al. who interviewed dentists in the 1990s after the last major round of dental contract reforms<sup>103</sup> we found that dentists justified a shift towards private practice in terms of both benefits to patients and autonomy. However, the grounds upon which to make such justifications appeared to have strengthened as a result of the contract reforms which capped practice incomes and constrained dentists' activities with regard to running their business. Furthermore, the revised patient charges introduced as part of the contract resulted in some NHS patients facing higher charges relative to private practice. Compared with the situation described by Calnan et al, our data suggest that the ideological loyalties and conflicts surrounding a shift to private practice had diminished. Even amongst dentists whose practice was almost entirely NHS, NHS practice was seen as detrimental in terms of fees, income, time and autonomy.

Contract reforms in general medical practice, which create opportunities for gaming the system, do not appear to have resulted in similar widespread abuse. One interpretation is that GPs are less

motivated by financial gain than dentists (GPs are 'knights' and dentists 'knaves' <sup>74</sup>). These interpretations resonate with the findings from comparisons of dental and medical students that in terms of 'professional attitude', defined in terms of altruism and intellectual challenge, this is less in evidence amongst the former, with dental students, expressing more of a commitment to personal and financial gain than their medical counterparts<sup>141</sup>. One interpretation might be that efforts such be made to encourage more individuals who are knights to enter the profession. However, the shared perception of the contract amongst members of the profession as unfair and unreasonable (in contrast to the new GP contract) appears to have contributed to a sense amongst the dental community that gaming the system by choosing the easiest way to meet targets is a legitimate response. Furthermore, the comments of our interviewees and focus group participants suggest that the socialisation of new entrants to the profession during their training and subsequent employment is likely to be highly influential in terms of their responses to incentive reforms.

Alongside these unintended effects there also appears to have been a loss of trust. Often, in the context of targets and incentives for professionals, discussions of trust concern a shift away from trusting professionals towards more actively managing their performance. The new contract can certainly be interpreted as reflecting broader trends away from trusting professionals. Yet our research also identified a loss of trust in the NHS, amongst the dentists in our study. Our findings suggest that dentists are suspicious of the motives of policy makers and anxious about their future within the NHS. Dentists remain within the NHS because they are dependent on income from NHS practice, although their comments evoke an image of private practice as providing sanctuary from an unpleasant environment.

Our data suggest that part of the process of changing behaviours, norms and attitudes will require the rebuilding of trust in the NHS amongst NHS dentists, as opposed to merely redesigning incentive structures, though the two are related. Whether desired changes of behaviour and norms will be equally swift under a revised contract remains to be seen.

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## 8 Drawing together the empirical work and discussion of findings

### 8.1 Introduction

The overall aim of the project was to explore and explain the impact of incentives in primary care on professional behaviours and performance.

Specifically we sought to:

- identify and classify the factors impacting on the motivation of PCPs
- examine the extent to which and the ways in which these are present in the various contexts in which PCPs are working
- explore how these impact on behaviours and performance of PCPs in general practice, dentistry and pharmacy settings
- describe local contextual factors which may encourage or limit responses to incentives
- investigate the ways in which incentive structures and regimes and their associated impacts evolve and transform over time
- analyse the (longitudinal) relationships between changes in incentive structures and the performance and behaviours of PCPs

We elaborate on these in what follows.

### 8.2 RESEARCH AIM 1: Identifying and classifying factors impacting on the motivation of PCPs

We identified a number of types of factors in our literature review which are relevant in terms of our findings<sup>ix</sup>. It should be noted that, in practice, these factors are interrelated and the boundaries between them may be rather more fluid than our neat categories suggest.

In broad terms the factors which impact on the motivation of PCPs can be classified as

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<sup>ix</sup> These factors correspond largely to the factors identified by Franco et al. 2002.

**Internal factors:** such as goals and values. Additionally, expectations also play a part<sup>92</sup>, with individuals' orientation to organisational or system objectives dependent in part on whether they feel able to perform tasks required<sup>93,94</sup>.

**Organisational factors:** these relate to factors within the PCP's organisation such as adequacy of resources to do one's job, relationships with colleagues, feedback on performance, support, distribution of rewards and workload, scrutiny processes and organisational culture. PCPs may also be (part) owners of the organisations in which they work, but increasingly this is not necessarily the case. Ownership brings responsibilities and powers which may impact positively and/or negatively on motivation.

**Community factors<sup>x</sup>:** The expectations of patients may also impact on PCP behaviour and motivation. Practices and pharmacies are located within communities. In addition to the daily interactions with patients, PCPs may hold a view of ideal and/or appropriate relationships with their local patient community. Furthermore, relationships between organisations (e.g. PCTs, other practices or pharmacies), imagined and otherwise, are also important.

**Professional factors:** PCPs are not just members of organisations. They are also members of professional groupings. These factors concern issues such as professional status and reputation and the extent to which activities which are incentivised are seen as in accordance with this. Additionally perceptions of status relative to other professions are also influential, as are perceptions of autonomy.

**Wider health systems factors:** PCPs and the organisations in which they work are located in a wider health system. System reforms can change or modify organisational goals and incentives. Reforms may also embody values and the extent to which they clash or resonate with the views and values of PCPs working in health systems, can be an important factors impacting on motivation.

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<sup>x</sup> 'Community' in Franco et al.'s model is largely concerned with provider-patient relationships, whereas we also identified interorganisational relationships as being important here.

### **8.3 RESEARCH AIM 2: examining the extent to which and the ways in which these are present in the various contexts in which PCPs are working**

#### **8.3.1 Internal factors**

With regard to internal factors, such as goals, identities and values, PCPs reported having made a deliberate choice to work in their particular field and most found their work (although not necessarily the wider environment in which they were working) fulfilling. In terms of values, all PCPs expressed commitment to patient care, as might be expected. GPs and practice nurses were, by and large, committed to the NHS and the public sector generally. QOF metrics were generally seen as fair and legitimate, although some of the newer targets were less universally accepted. By and large, the measures were not seen as threatening. Many dentists drew attention to the shortcomings of NHS dentistry and the apparent superiority of private sector provision. For pharmacists, there was nostalgia for small independent pharmacies which were seen as pleasant working environments and organisations which delivered high quality care. In terms of expectations, and the extent to which individuals feel able to perform the duties required, goal setting theory suggests that in order to motivate, goals should be within the attainment level of individuals, participative, clear and unambiguous and clearly understood<sup>94</sup>. From the perspective of psychological theory, at least some of these expectations will be related to an individual's self concept<sup>91</sup>. However, where shortcomings were identified with regard to the ability to perform tasks, this tended to be articulated in terms of organisational factors.

#### **8.3.2 Organisational factors**

Various factors here were important. These include the adequacy of resources to do one's job, relationships with colleagues, feedback on performance, support, distribution of rewards and workload, scrutiny processes and organisational culture, but the specific issues were slightly different in each of our settings.

##### ***General medical practice***

GPs tend to work in partnership with other GPs (and the number of single handed practices is diminishing). This means that the quality of relationships between partners is an important factor impacting on GP motivation. GP partners own the business in which they work and recent reforms have resulted in large increases in resources going into primary medical care. The balance between investing any new money in practice staff and facilities and taking this additional resource as extra personal income is a decision for the partners. However, if GPs choose to take this as income, there may be

consequences in terms of additional workload to be shared amongst existing staff many of whom are not partners. Having a choice of how to invest additional resources is likely to motivate GPs compared with having no choice.

For salaried staff (such as nurses and salaried GPs), the situation is different. Pressures to take on additional work may demotivate staff if they feel that they are not remunerated for this. Furthermore, as predicted by equity theory<sup>95</sup>, staff in these settings compared their efforts and rewards with those around them. The extent to which the distribution of rewards, relative to effort is perceived as fair, our data suggest, is an important factor in general medical practice. Fairness, however, may relate to a range of factors and rewards, not just money. Since partnerships are in short supply, salaried GPs may work hard in order to increase their chances of being taken on as a partner. However, this may increase their resentment and reduce intrinsic motivation.

The pursuit of QOF points relies heavily on organisational factors such as practice staff being well informed about the content of goals. In terms of the clarity of goals, as our findings illustrate, for changes to incentive structures to have an impact, it is necessary for the people on the receiving end to know what is expected from them. The example from our California data, where many doctors were unaware of the content of performance targets is a stark illustration of this. In general medical practice settings the targets are notified in advance to practices and software companies ensure that these are reflected in computerised prompts. Electronic templates are in place, which remind staff of what is required of them. Computerised prompts were a feature of all practice settings and these are the sorts of feedback mechanisms which have been shown to improve performance<sup>93</sup>. Performance is different from motivation, however. Within the practices, there are various mechanisms to monitor staff and reinforce messages about what is required of practice team members and these differ with respect to their motivational impacts.

People also need to be able to respond to incentives in the desired way, so this goes beyond a general knowledge of goals to encompass the extent to which the incentive is for something that is easily identified and acted upon. Many QOF indicators are process rather than outcome measures. Points (and pounds) awarded for meeting QOF targets reflect the level of effort required to achieve target performance. There is acknowledgment, therefore, that it is easier to influence some things than others. Processes are easier to achieve than outcomes, but some process measures are much easier to influence than others. If, as some GPs reported, pursuit of targets



produces unintended outcomes (e.g. postural hypotension as a result of aggressive hypertension treatment) this may reduce the clarity about goals. What should be done when unintended consequences occur? At what point do side effects become classified as so severe as to discontinue treatment and who makes that decision? With regard to internal practice factors, the extent to which good working relationships exist, which allow clinicians freedom to revise their patient management plans, for example increasing the numbers of patients who are exception reported, will be an important factor impacting on motivation.

In terms of goals that are realistic and achievable, the extent to which the organisational setting provides the capacity to respond to incentives is an important factor influencing motivation. Most respondents reported their work as taking place within constrained resources and a relatively pressurised organisational environment. However, generally, practice staff did not report lack of resources as a major barrier to responding to incentives

With regard to organisational culture, clan and developmental cultures tend to be associated with relationship-based processes. There was evidence in our study of practices becoming increasingly hierarchical in nature. McDonald and colleagues in a small study of 2 practices in the early phases of QOF found that hierarchies did not necessarily conform to paper based organisational charts, as salaried GPs became involved in 'chasing' deficient (in terms of QOF related behaviours) colleagues including GP partners<sup>116</sup>. However, in our study, GP partners were generally above salaried GPs in both the formal and informal hierarchy and the increasing role played by Nurse Practitioners and Healthcare Assistants meant that practices hierarchies were lengthening. The reports of participants suggest that more mechanistic processes were in place as a result of QOF implementation. However, in many cases these existed alongside a shared history and philosophy which acted to mitigate some of the potentially dysfunctional consequences of increased hierarchy and formality.

In terms of PBC, the relevant organisation here is the PBC consortium. The extent to which the messages about PBC were clear and targeted was raised by many participants. Although practices have PBC leads, many GPs and almost all nurses raised concerns and/or expressed ignorance about PBC, which indicated that communication was poor in many places. In addition, messages were seen as confusing, with continuity and access being emphasised by policy makers, at the same time as PBC took GPs away from clinical work to undertake commissioning roles. The pace of change was also

reported as very slow in many cases. In terms of the extent to which individuals and groups were able to respond to the PBC incentives, consortia were described as being hampered by restrictions and external factors which were not subject to influence by the PBC clinicians.

### ***Community pharmacy***

Most pharmacists are salaried employees. Pharmacists working in multiples appeared to conceptualise their organisation in terms of the branch where they worked and more generally, in terms of the multiple which employed them. With regard to the adequacy of resources within a pharmacy, pharmacists are less able to influence this than GP partners. This is not only because salaried staff have little influence in terms of securing higher staffing levels, but also because even for owners, increasing staffing levels is difficult, since, unlike for GP practices, there have been no large investments of additional resources into community pharmacy. Related to this, the increasingly competitive nature of community pharmacy acts as an incentive to keep additional expenditure on staff to a minimum.

In terms of relationships within the organisation, the distribution of rewards, relative to effort may be less of an issue in community pharmacy, compared with GP practices since most pharmacies have only one pharmacist. Pharmacists generally reported being content with their levels of remuneration and other pharmacy staff are paid much lower wages, relative to the pharmacist. For multiples, profits are paid to anonymous shareholders and with regard to independents, amongst owners and pharmacists generally, there was a shared view that life was a constant struggle to keep the business afloat. Unlike salaried GPs who were frustrated by the lack of partnership opportunities, pharmacists had generally taken a decision not to own their own pharmacy, due to the pressures involved.

In community pharmacy settings, staff were clear on many aspects of the new contract in terms of what was required of them. Pharmacists' accounts of the need to meet targets highlight the ways in which pharmacists were regularly reminded of goals in those areas. However, some aspects of the new contract (e.g. the delivery of 'public health' advice) were regarded as vague, with little guidance on the nature of evidence to be provided to PCT reviewers or services to be delivered. Furthermore, within their organisations, pharmacists were often instructed to meet MUR targets, but also to maintain or increase dispensing levels. This served to reduce the clarity about what was expected of them. It also has implications for the extent to

which the criteria that pharmacists' performance is measured against are seen by them as fair and legitimate.

The extent to which pharmacists were able to respond in the desired way was dependent in large part on availability of resources within the organisation. In some cases, pharmacies lacked consultation space, which meant that MURs could not be undertaken. However, where these facilities existed, the extent to which pharmacists could make use of them depended on factors such as the availability of other staff, to whom tasks could be delegated.

The increasing number of non-pharmacists appeared to be leading to more hierarchical forms and this trend was echoed in the growth of large multiples. Accounts of organisations at the level of the multiple suggested that these tended towards a more rational and hierarchical culture. A move towards increasing hierarchy and formality at the local level however, did not sit easily with a context in which small numbers of people work in close proximity on a daily basis and where pharmacists need to build up trust (as opposed to relying on rules and formal policies) in order to delegate tasks when necessary.

### ***General dental practice***

Most dentists providing care to NHS patients are non-principals. In terms of additional investment in the practice, decisions about this are made by principals who own the practice. There has been no large public investment in general dental practice on a scale comparable with general medical practice. PCTs were given an 11 per cent uplift in dental funding allocations for 2008-09, but this was linked to specific services and volumes, to tackle access issues. Contract volumes and payments have been capped, which means that dentists cannot increase activity to generate new resources to reinvest in the practice.

For associates there appears to be no ill feeling about the distribution of rewards and workload in the organisation (average taxable income for principals was £126,807 compared to £65,697 for associates in 2007/8<sup>142</sup>). However, some principals reported parting company with associates who were not sufficiently productive and such staff were not amongst our interviewees, so it may be that our sample was more positively inclined than the general associate population.

In terms of the message of the incentives being clear and targeted, the fact that UDA contracted volumes were important was repeated by every interviewee. Within the organisation, principals

communicated to associates what was required of them. Whether this was the message that PCT commissioners were seeking to transmit, particularly, if it means sacrificing quality for quantity, is doubtful. So the message was targeted but it appears to have been insufficiently nuanced, due to the relatively blunt nature of the 3 UDA band regime, which incentivises people to undertake activities where the efforts are low compared to the payment received. In addition, many dentists also suggested that they were unclear how contract values had been arrived at and some described working hard and overperforming, without compensation. Dentists also complained that it was no longer possible to charge patients who did not attend appointments, resulting in higher rates of non-attenders. This made target volumes more difficult to achieve and was a drag on dentists' ability to respond in the desired way. By and large, however, the desired result in terms of UDA volumes appears to have been subject to significant influence by dentists.

With regard to organisational culture, there appeared to be a shift towards a more goal oriented (UDA targets) approach. At the same time, however, the fact that dentists reported no longer paying a dental hygienist as part of the team, meant that unlike in general medical practice and pharmacy, the hierarchy was becoming shorter. This combined with the fact that dental practices tend to be small organisations, with principals tending to be older, more experienced dentists ('leader as mentor' in keeping with clan culture), may explain why despite the acrimonious relationships with PCTs (see below), staff within practices appeared to enjoy relatively good working relationships. This contrasts to some extent with pharmacies, which are characterised by hierarchical relationships, with non-pharmacists enjoying considerably less autonomy than dental associates.

In terms of goals that are realistic and achievable, and the extent to which the organisation provides the capacity to respond to incentives, dentists reported being under pressure and on a treadmill, but this was reported as being due to factors outside of the organisation.

### **8.3.3 Community factors**

PCP organisations are all located within communities. The nature of relationships between organisations (e.g. PCTs, other practices or pharmacies) within the community appears to be an important factor impacting on motivation. The nature of these relationships appeared to be influenced by issues such as the extent to which performance measurement was perceived as accurate, the extent to which performance measures were seen as fair and legitimate and whether

the measures were perceived as threatening. Yet the way in which these factors are present differed between the three contexts.

### ***General medical practice***

**Relationships with PCTs** were generally either cordial or distant (though not in a hostile way) and some GPs described working with PCT staff, as part of PBC processes and/or to develop quality scorecards. As we outline above, generally PCT monitoring visits were not seen as overly intrusive. Some respondents described worsening relationships with PCTs as a result of the tender exercise for Darzi practices and PCTMS GPs reported relationships as poor.

Findings from our California interviews highlight the importance of a shared perception that the data used to judge practice performance are accurate. The incentive scheme for GPs in California was characterised by lack of data ownership and disputes about data accuracy. In contrast, since practice performance in England is based on data extracted from the practice's own computerised records and ongoing assessment of performance is carried out by staff within the practice, there were no complaints about the accuracy of the data upon which practices were judged by third parties.

**Relationships with PBC consortia** were dependent in part upon the quality of relationships with secondary care providers. Where these were reported as good, there was less of an incentive to engage with PBC for fear of damaging these relationships. Factors such as experiences of fundholding also played an important role.

**Relationships with other PCPs** were complex. Community can be conceptualised as the immediate patient population, or more broadly as part of a community of practices within a PCT or PBC consortium. As Benedict Anderson points out, all communities are in some sense imagined, existing in the mind<sup>143</sup>. With regard to relationships with other practices, there appeared to be a tension between being part of an imagined, unified, community of practices, providing good care to local populations and a desire to depict other practices as deficient compared to one's own.

Respondents also mentioned local pharmacies. In general, comments related to dissatisfaction with MURs, rather than viewing pharmacies as part of an inclusive community.

**Relationships with patients** were generally described in terms of individual patients and practice populations, rather than with a

broader community of patients. QOF encourages a focus on targets at the level of a patient population. Most practices did not operate a personal list system but participants did not express huge concerns about the impact on continuity. As we noted earlier, in general, patients were described as becoming more demanding and this was linked to consumerist reforms. However, overall, the responses of our participants suggest that many GPs (although not the social enterprise GPs) see their role as providing care that is effective, but not necessarily responsive, with the promotion of a consumerist orientation in the context of a collective scarce NHS resource seen as questionable.

### ***Community pharmacy***

**Relationships with PCTs** were generally described as good. In terms of performance measurement, most of the targets faced by pharmacists were imposed by employers rather than PCTs. Where pharmacists were dissatisfied, this was due to a failure on the part of PCTs to fund additional services, but there were no major complaints made about PCTs.

**Relationships with other PCPs** were complex. Individual local pharmacists were sometimes described as helping each other out, for example, lending supplies if an item was out of stock. However, beyond these individual relationship with a small number of local pharmacists, the community in pharmacists' accounts was one in which pharmacies were in competition for business. 'Other' pharmacists were involved in conducting MURs which were of dubious value. In some cases pharmacists admitted to engaging in such activities themselves.

General medical practices were described in ways which suggested that they were key organisations in the community. Often practices were depicted as limiting the extent to which pharmacists could implement policies such as repeat dispensing. GPs also often failed to act on MUR recommendations, although in some cases pharmacies could sympathise with GPs who were not engaged with the MUR process, where they were recipients of 'tick box' MURs.

**Relationships with patients** were described as undergoing a process of change.

Pharmacists described a community in which patients are becoming increasingly demanding and pharmacists are becoming increasingly

dependent on patients for business generally and for consent to MURs in particular.

Communities are becoming increasingly virtual. There was only one internet pharmacy in our sample, but even amongst the other pharmacies, developments such as home deliveries were described as reducing face to face contact between pharmacists and patients. At the same time, many pharmacists described continuity and getting to know their local community over time. This had implications for services such as MURs. The knowledge that pharmacies would receive payment for a service that had previously been provided out of a concern for the patient's welfare led to embarrassment for some pharmacist and may have implications for the nature of their relationship with patients.

### ***General dental practice***

**Relationships with PCTs** were generally described as poor. Although the contract was a national initiative, it was PCTs that negotiated (or imposed as described by dentists) contract target volumes. It was PCTs that withdrew money for underperformance and it was PCTs that kept contractors waiting until the eleventh hour to inform them of the contract values for the following year. All of these factors contributed to a worsening of relationships between dental practices and PCTs in almost all cases.

**Relationships with other PCPs** were described as having improved as a result of the contract. Rather than seeing themselves in competition with other dentists (particularly in a context where demand exceeded supply), dentists described the new contract as acting to help unite dentists against a common enemy.

**Relationships with patients** were described as changing, with patients becoming more demanding. However, many dentists described continuity and getting to know their local patient community over time as a source of motivation. There appeared to exist, various 'imagined communities' with regard to other dental practices. In addition to a general 'community' of other dental practices in an abstract sense, there were communities of NHS and private dentists. There were communities of dentists (from both sectors) focused on improving oral health, as compared with those involved in cosmetic dentistry aimed at affluent patients. It was also acknowledged that within the community of dentists there were perverse incentives to which dentists were responding. However, this was not a case of 'other practices' (bad or deficient practices) gaming the system. Rather this was viewed as 'human nature' and a

perfectly understandable response to the imposition of a very unfair system, which penalised dentists and threatened to undermine patient care.

### **8.3.4 Professional factors**

Changes to incentive structures might be expected to influence professional status, power and autonomy<sup>98</sup>, as well as status differentials and jurisdictions<sup>97</sup> within<sup>130</sup> and between professional groups. The extent to which these factors were present differed between the settings.

#### ***General medical practice***

The increasingly hierarchical nature of organisational life appears to be leading to differential GP status in many practices. Although many GP partners described the salaried GPs they employed as valued colleagues (though by no means all did this), the comments by salaried GPs suggest that they perceive their treatment as inferior to partners and as unfair in many cases. This state of affairs appears to be leading to two tiers of GP professionals.

Practice nurses described taking on additional roles and GPs described becoming increasingly dependent on increasingly highly skilled nurses. However, our research identifies a range of roles being performed by practice nurses and differences in views about what constitutes core tasks and the relevant sphere of practice nursing. These differences, together with the fact that the division of labour within practices is subject to the approval of partners and increasingly influenced by contract requirements raises questions more generally about the extent to which doctors and nurses working in primary care can be said to be exercising autonomy.

With regard to autonomy, many GPs described undertaking tasks which they viewed as of dubious value, in order to meet QOF targets. The fact that clinicians' activities were much more transparent, due to electronic data recording and QOF monitoring facilitated scrutiny. Ongoing monitoring (rather than trusting 'autonomous professionals') was commonplace and appeared to be increasingly accepted as legitimate.

QOF might be interpreted as increasing the use of codified knowledge (via computerised templates and pop up boxes which reduce discretion) and thereby diminishing professional status. Many GPs described going beyond QOF guidelines (which were seen as too weak) to use other guidelines. Instead of being described in terms of esoteric knowledge and reflective practice, there was a tendency to



redefine the nature of professional work as being up to date with the most recent guidelines. Discretion, did not necessarily disappear, but the nature of it changed from using one's judgment, to encompass having discretion to choose from a range of tools and guidelines, the thing most suited to the circumstances at hand.

Since, developments such as increasing hierarchy, guidelines and scrutiny were also features of PBC, this trend towards reduced autonomy was mirrored outside the practice.

### ***Community pharmacy***

Pharmacists generally welcomed the contract reforms as being good for the profession. In practice, however, pharmacists described the difficulty of being in two places (the dispensary and the consulting room) at once, which limited the extent to which they could achieve the potential which the profession sought. Additionally, the commercial nature of pharmacy was seen as diminishing professional status. Furthermore, pharmacists were very aware of their subordinate status relative to medicine. Recent reforms to encourage greater use of pharmacists' skills appeared to have done little, if anything, to change that.

### ***General dental practice***

Many dentists viewed the contract reforms as undermining their professional judgement and removing their control over income and activity. Although dentists (unlike GPs) tended not to refer to guidelines when making treatment decisions (and dentistry is characterised by a paucity of evidence) dentists were aware of guidelines which sought to constrain their activities and hotly disputed the evidence base for these.

## **8.3.5 Wider health systems factors (general medical practice, pharmacy and dentistry)**

Recent reforms in primary care involve specific changes and detailed rules and regulations as part of the design of incentive schemes. In addition, these specifics may be part of a wider process of health system reforms which impact on PCPs.

The contract reforms can be seen as modifying organisational goals and incentives and moving away from trusting individuals to monitoring their performance. This was a common feature of the reforms in all three settings, although the level of trust varied between the three settings. Dentistry was characterised by a low trust regime relative to general medical practice and pharmacy.

## **8.4 RESEARCH AIM 3: exploring how these impact on behaviours and performance of PCPs in general practice, dentistry and pharmacy settings**

### **8.4.1 General medical practice**

In terms of PCP performance, overall rates of attainment for QOF targets were high. In contrast, rates of exception reporting were low over the study period.

With regard to our comparison of performance for three chronic conditions, we observed accelerated improvements in quality for two of these following the introduction of QOF. However, once targets were reached, the improvement in the quality of care for patients with these conditions slowed, and the quality of care declined for two conditions that had not been linked to incentives. Continuity of care was reduced after the introduction of the scheme.

The variation in care quality related to deprivation in general medical practice reduced over time. This suggests that QOF has the potential to make a substantial contribution to the reduction of inequalities in the delivery of clinical care related to area deprivation.

#### ***Internal factors***

The overall high levels of attainment reported above may in part be explained by the fact that (as our data suggest) QOF was incentivising activities which were already part of practice life. Reward systems that promote feelings of competence and autonomy<sup>86</sup> and a context perceived as supportive rather than pressuring will further enhance motivation<sup>81</sup>. The fact that most targets were in line with what GPs saw as the core business of general practice was seen as helpful. Yet since many GPs pursued targets which they saw as of limited value, this raises questions about the extent to which targets need to be wholly aligned to GPs' values.

Clinicians' own experience of working with QOF appeared to influence attitudes and behaviours. For example, an increase in the incidence of postural hypotension due to a zealous approach to meeting QOF targets, led some to moderate their approach, but also to be less enthusiastic for specific targets and for targets generally in some cases. Similarly initial reluctance to conduct structured depression screening was for some GPs, giving way to acceptance that this process could help (as opposed to hinder) patient management. So that the views about the relationship between individual action and

outcomes (expectancy) were important, but in some cases this changed over time.

The ability to exception report, conveying to clinicians that they are trusted and avoiding setting unrealistic goals as well as the flexibility of being able to use other (tougher) guidelines enabled clinicians to use discretion, whilst at the same time contributing to practice performance targets. Unlike the dentists who felt constrained by contract volumes, there appeared to be sufficient room for manoeuvre to avoid severe detrimental effects on GP morale and/ or high levels of abuse in the system.

Policies aimed at increasing competition and choice in primary care created tensions, partly because these appeared to clash with the public sector ethos and values of GPs and practice nurses. The response of most GPs to policies aimed at expanding the market in the NHS appears to take for granted the superiority of 'public' (i.e. GP partnerships) provision of care. GPs are actively involved in the defence of the public sphere, which is neither a neo-liberal minimalist market state, nor a wholly altruistic state, responding to citizens' wants. As GP accounts suggest, the public sphere they defend is one in which boundaries are drawn about entitlements, and GPs are actively engaged in defining and policing these boundaries.

Alongside developments such as the entry of private sector companies and the commissioning of secondary care services from private providers, attitudes towards some aspects of the market appear to be changing slightly. As the example of the private sector dermatology clinic suggests, unexpected events are starting to challenge preconceptions and existing values. Our data suggest that the new incentive structures were acting to modify values and attitudes, in a way which made at least some of the individuals concerned less resistant to these policies than they had been initially.

### ***Organisational factors***

All practices had developed systems for chasing up staff members to meet QOF targets. The system of targets, underpinned by on screen, real time reminders and scrutiny and monitoring by others within the organisation helped practices reach targets. Although staff appear to have grown accustomed to being chased, the comments by many interviewees suggest a process of responding to prompts rather than taking responsibility for being proactive. Generally staff had become accustomed to this way of working, although a small number of respondents were unhappy with this state of affairs. In some practices, there were allowances made for staff who were not adept

at hitting QOF targets or refused to comply due to concerns about the content of targets. However, these related to a small number of targets only (e.g. depression screening). These systems were reported as changing behaviour in terms of data recording and/or the delivery of care.

Participants contrasted current relatively systematic processes with frenzied and chaotic activities in the early stages of QOF, which may contribute to a more stable working environment. However, alongside the development of standard processes and routines and increasing experience of delivering QOF targets, the initial enthusiasm for QOF described in early studies<sup>116</sup> appeared to have been transformed into acceptance and resignation. Some participants looked back nostalgically to a golden age when life was simpler, but although most participants described heavy workloads and increasing complexity, when asked directly, very few said that they would prefer to return to life before QOF.

Targets also acted to change behaviours by appealing to the competitive instinct in practice members. Practice staff were able to draw succour from good performance in their own organisation, whilst at the same time disparaging high scores in other practices. Targets created tensions, but also appeared to bring staff together resulting in new ways of working around common and very specific goals as opposed to more abstract shared values. Where a history of shared values and philosophy existed the adaptations appeared to be more easily achieved.

The distribution of rewards within practices led to dissatisfaction amongst salaried staff in many cases. However, for the most part, these staff participated in the activities required to meet targets, despite being demotivated by what they perceived as an unfair distribution of rewards.

In terms of behaviours and performance, the impact of choice and competition policies differed across and between practices. In some cases practices submitted bids for APMS tendering exercises. These were reported as being highly resource intensive exercises for the organisations concerned. In order to be considered for these, practices generally need good performance scores on QOF and other measures (e.g. participation in PBC). In other cases, practice members complained about these developments, but, as far as possible, ignored them.

As with QOF and APMS tendering exercises, participants' experiences of PBC over time influenced responses. PBC led to greater scrutiny of referrals and some respondents reported having made progress in reducing referrals, freeing up savings for reinvestment. The organisational setting appeared to assist with the provision of capacity to respond in terms of time allocated by lead GPs and processes to examine referrals which were conducted in a non-threatening manner and largely perceived as fair and legitimate. In some sites GPs reported being initially enthusiastic only to be disappointed at the slow pace of change over time leading to diminished enthusiasm. Elsewhere progress was reported, with increasing take-up over time. Mechanisms to increase powers for PBC consortia were being developed so that the direction of travel was reported as moving forward. In some cases, experience of initial progress served to dampen enthusiasm. For example, a tendering exercise that led to worsening relationships with secondary care providers had reduced initial enthusiasm, leading the GPs concerned to take steps backwards to rethink their involvement with PBC. With regard to processes to scrutinise referrals, there appeared to be increasing acceptance of this over time. In year three many GPs reported very little progress on PBC, although a gulf was discernible between rank and file and other GPs on this, both in terms of enthusiasm and knowledge about what was happening in practice. The reservations about the policy led many GPs to avoid the process, although in many cases PBC refuseniks and agnostics participated in referral scrutiny meetings and did not violently object to these.

From the perspective of the state, our findings might provide good news. The ostensible aims of recent reforms of primary care are to increase the quality of care provided and, as part of this process, to promote responsiveness to 'consumers'. The provision of new local services, enabled by the PBC policy, might reflect more responsive services, but at the same time, scrutiny of referrals might result in GPs' views taking precedence over patients' wishes. The requirement to be responsive in a context of fixed resources is unlikely to require a radical revision of existing practice, which consists of GPs defining acceptable limits to which a resource-constrained public service can stretch. Our data suggest that although market reforms present a potential challenge to the traditional ways of working, changes have not been so radical as to provoke widespread resistance.

### ***Community factors***

Clinicians gave many examples of engaging in activities which were not necessarily in the best interest of patients, because they would yield QOF points. Reports of QOF threatening the patient's agenda and clinicians focusing on computer screens rather than patients were relatively common. Amongst patients, however, increased

attention from their local GP practice did not appear to be unwelcome, except amongst asthma patients who reported themselves as being well able to manage their condition and resented being called to attend for review.

A recurring theme was that 'other practices' were improved by QOF, whereas for 'our practice' it was business as usual. High QOF scores in 'other practices' are suspicious; in 'our practice' they are an indicator of quality. These views were not universal, although many respondents sought to distinguish their practice in this way.

Amongst PCT commissioners there was an increasing tendency to go beyond QOF and PBC participation to develop other ways of measuring practice performance. Where 'balanced scorecard' type mechanisms were in place, practices were normally involved in the development of such tools and generally were relatively accepting of them. This appears to reflect a more general attitude of resignation and acceptance with regard to monitoring and accountability. However, for some GPs it was also a way of demonstrating the value of primary medical care to answer the implied criticisms in recent reforms, as well as highlighting deficient practice amongst new entrants to the market. As we outline, however, a move to include a wider range of measures, was not matched by in depth analysis of QOF performance in most cases.

### ***Professional factors***

Traditional aspects of practice, such as the privacy and the primacy of the GP consultation, are giving way to greater scrutiny of GP behaviours by others. This trend has been evident for a number of years, with GPs incorporating this into their practice<sup>116</sup>. In a context of new contractual arrangements and PBC consortia, scrutiny by GPs outside one's own practice is a relatively new departure. However, amongst many of our GP interviewees, such practices were seen as legitimate. For GPs whose referral patterns were within local norms, scrutiny of activity was not disruptive of existing practice, and even dissenters continued to participate in such processes.

More generally, these developments can be seen as changing the nature of general medical practice and practice nursing. Theories of professionalism place heavy emphasis on autonomy and discretion. Whilst GPs' accounts suggest they are still required to apply judgment, reports of undertaking activities for QOF points rather than for clinical reasons and of subordinating one's own preferences, due to career aspirations, suggest that subtle shifts are taking place in the definition of what it means to be a professional in primary medical care. 'Chasing' colleagues, also suggests an increasing degree of management and scrutiny on the part of chaser GPs, whilst

in terms of medical professionalism, there is a move away from trusting doctors to systems that monitor performance and highlight deficient practice.

There were practices which had taken a decision not to employ salaried GPs. In other places nurses resisted requests to run chronic disease clinics and/or doctors chose to retain responsibility for these patients. PCPs work in organisations and the practice dimension is important, as illustrated starkly by the comments from PCTMS GPs. So the developments we describe are not an inevitable response to changes in incentive structures. However, in adapting to QOF in what the vast majority of practices perceive to be a relatively efficient manner, creating structures in which employees are required to fulfil the contractual obligations placed on them by their employer, practices are at the same time, changing the nature of what it means to be a professional in primary medical care today.

#### **8.4.2 Community pharmacy**

In terms of impact on performance over time, our quantitative data show increasing numbers of MURs being undertaken, year on year, in both independent and multiple pharmacy organisations.

There was an increase in the number of local enhanced services provided by community pharmacists.

Repeat dispensing did not appear to be greatly influenced by the incentives provided, although this was due to largely to factors beyond the control of pharmacists.

##### ***Internal factors***

Many pharmacists suggested that MURs involved activities which had traditionally been part of pharmacy life. Reward systems that promote feelings of competence and autonomy<sup>86</sup> and a context perceived as supportive rather than pressuring will further enhance motivation<sup>81</sup>. The fact that the contract reforms were intended to make better use of pharmacists' skills and knowledge meant that there was generally support for the reforms.

MUR targets were reported as changing pharmacists' behaviour, but the extent to which they were described as aligned with individual values varied. In some cases MURs were reported as worthwhile and fulfilling. In others they were depicted as cursory and/or bordering on fraudulent.

The concerns expressed by pharmacists about 'tick box' MURs mostly related to organisational factors. However, the admission by some pharmacists that they undertook MURs which were of limited value, suggests that targets need not be wholly aligned to pharmacists' values in order to achieve behaviour change.

Pharmacists' own experience of working with the new contract appeared to influence attitudes and behaviours. Many pharmacists reported that initial enthusiasm for repeat dispensing had waned, due to the difficulties experienced in getting GP practices to participate, despite major efforts from pharmacies. Many agreed that MURs were good in principle, though over time for those who faced tough targets, MURs were a source of pressure rather than a motivating influence. Efforts to engage local GP practices on repeat dispensing which came to nought, led pharmacists to abandon their attempts. Similarly, difficulties in engaging patients as part of the MUR process, led to frustration. Individuals' views about the relationship between their action and outcomes (expectancy<sup>92</sup>) were important. In some cases this changed over time, but generally not for the better.

### ***Organisational factors***

The delegation of tasks to other staff such as checking technicians, was happening prior to the introduction of the contract, but these staff were reported as playing an increasingly important role. The requirement to document activities such as advice giving added to pressures. Where organisational capacity had been enhanced via the provision of a consulting room, there was mostly no additional resource for staffing, with the result that pharmacists felt pressure to be in various places (the counter, dispensary and consulting room), at once. A small number of participants looked back nostalgically to a golden age when pharmacists were involved in compounding medicines from constituent ingredients, but although most participants described heavier workloads following the introduction of the contract, when asked directly, very few said that they would prefer to return to life before the new contract.

There were variations in the ways in which organisations responded to the introduction of MURs, with top down targets resulting in changes to behaviour (increasing numbers of MURs being undertaken).

Of the 3 settings in the study, pharmacy was the area where personal income was mentioned least. The distribution of rewards did not appear to be a huge factor impacting on behaviour of pharmacists. Pharmacists generally reported being well



remunerated and even where pharmacists received small or no bonuses for additional MUR effort this was not a major concern.

### ***Community factors***

Pharmacists gave examples of responding to patient wishes in a competitive market where non-response would result in loss of business. However, activities such as home deliveries, reduced opportunities for direct contact with patients and made provision of MURs to these patients more difficult.

Amongst commissioners there was a shift discernible towards increasing understanding of pharmacy service provision within the PCT. The requirement to undertake a PNA had prompted some PCTs to start to look more closely at what was happening in local pharmacies, although this was a relatively new development, which made drawing conclusions about the impact on commissioning decisions difficult. In terms of commissioning enhanced services, PCTs did not report major changes. Although PCT managers expressed concerns about MUR quality, there were no reports of changes on this topic over time.

### ***Professional factors***

In theory the recent reforms in community pharmacy which offer financial incentives to undertake additional tasks, provide opportunities for pharmacists to extend their roles and enhance their status. Our findings suggests that this policy has unintended effects which may be damaging to the profession. Much of the literature in this area stresses pharmacy's position as subordinate to medicine as a key factor restricting professional status. Our study highlights major divisions within the profession, with pharmacists telling atrocity stories about members of their own profession. In addition to the negative direct effects of MURs such as the creation of a target driven tick box culture and increased dependence on patients, MURs provided a focus, around which, groups could mobilise and give voice to frustrations, with potentially damaging consequences for professional status. Over time, therefore, we are starting to see changes which are at odds with policy intended to enhance the status of the profession.

## **8.4.3 General dental practice**

In terms of the impact on performance over time we observed a shift towards treatments where the rewards are high relative to the costs, as opposed to selecting on the basis of clinical factors alone.

### ***Internal factors***

Many of the responses suggested that the new contract was a radical departure from previous practice. The reward system conveyed to dentists that they were not trusted and appeared to act to undermine rather than promote feelings of competence and autonomy. The context was perceived as lacking supportive mechanisms and pressuring, thereby damaging motivation. The fact that the target regime failed to incentivise prevention or effort and conveyed to dentists a lack of understanding of their service was also seen as unhelpful.

Our quantitative data illustrate that behaviour change occurred immediately following the introduction of the new contract, with a shift away from complex towards less resource intensive treatments in evidence. Our qualitative data suggest that responding to perverse incentives is viewed as a natural response to an unfair system. Some dentists we spoke to had left or were reducing their contractual commitment with the NHS as a result of what they perceived as the unfair and threatening nature of the reforms.

The switch to treatments which pay more, relative to effort expended resonates with expectancy theory which hypothesises that individuals will assess the extent to which their performance will lead to a measurable result (expectancy), the likelihood that the result will lead to a given reward (instrumentality) and the likely satisfaction associated with that (valence)<sup>92,93</sup>. It also illustrates that incentives can act as powerful levers to change behaviour, but this can encourage what might be regarded as 'knavish' rather than 'knightly' responses, even amongst otherwise well intentioned individuals.

With regard to the co-existence of 'knavish and knightly motives'<sup>74,75</sup> in dentistry with a combination of these leading to dentists leaving the NHS, in the context of previous reforms encouraging some dentists to leave, many dentists remained due to commitment to the service. Even amongst those who left, the decision to exit was not taken lightly. Remarks by dentists in our study show a shift in attitudes and values, with the new contract described as making it increasingly difficult to provide high quality care to NHS patients. Whilst a commitment to the NHS remains, at the level of ideals, the resentment felt towards PCTs and the government reflects an erosion of loyalty to the NHS. In extreme cases dentists saw the low status of NHS provision as detracting from their practice identity (e.g. 'I don't want my business to look cheap. I don't want a NHS logo outside').

This suggests that for many dentists 'perceived public service efficacy' may be low, compared with general medical practice.

### ***Organisational factors***

Changes reported under this heading largely concerned a shift towards activity-related contracts with associates, which encouraged them to work in a more focused way to target volumes. In addition, there were changes with regard to the provision of dental hygienist services, with many practices no longer providing these services as part of their NHS treatment. The result was that associates may provide this aspect of care, or it may be omitted entirely.

Dentists claimed that it was constant struggle for their organisations to survive under the new contract, with some dental practices leaving the service.

### ***Community factors***

The contract was reported as changing dentists' willingness to take on new patients. The UDA system created disincentives to take patients whose dental health status was unknown since remuneration would not reflect effort invested in such patients. Some dentists also described processes for moving NHS patients to private provision.

Over time commissioners reported being more relaxed about securing access and responding to situations where practices threatened to leave the NHS. Many reported putting arrangements in place to provide urgent care within current contracts. Whilst this may help address access, it does imply a shift towards a focus on rendering the patient 'dentally fit' via a course of treatment and away from a broader responsibility for maintenance of the patient's oral health. PCT policies to plug access gaps by commissioning urgent care slots in response to consumer demand, highlight a tension between a market oriented system with patients accessing care on demand and a longer term commitment to maintenance of the patient's oral health (as under the previous capitation and patient registration arrangements). The irony is that whilst PCTs describe this shift towards making care more responsive, for non-NHS patients, dentists report aiming to cultivate long term relationships and provide continuity, which is a source of satisfaction for patients and dentists alike.

### ***Professional factors***

Many dentists viewed the contract reforms as undermining their professional judgement and removing their control over income and activity. One response to contracts, which were perceived as

reducing autonomy and imposing an unfair UDA payment regime and non negotiable targets, has been to shift to treatments where rewards relative to effort are high. This was viewed as 'human nature' and a perfectly understandable response to the imposition of a very unfair system, rather than 'unprofessional' or knavish behaviour. The trend we observed was one of a reduced commitment to the NHS, which may be transmitted to new entrants to the profession, and acknowledgment even amongst NHS dentists that public sector provision is limited relative to private treatment. In terms of using one's skills as a professional, therefore, the private sector is more attractive. Whilst public sector dentistry couples public service values and vocation to professionalism, private sector care is viewed as offering better treatment options and respecting professional autonomy so that overall the link between NHS dentistry and professionalism is becoming weaker.

#### **8.4.4 Wider health system reforms (general medical practice, pharmacy and dentistry)**

Reforms embody values and the extent to which these values clash or resonate with the views and values of PCPs working in health systems, can be an important factor impacting on motivation. The example of GP opposition to the 1990 contract, which was perceived as a threat to autonomy from the 'contract state' illustrates how reforms can convey more general messages which may have positive or negative impacts on motivation. Our findings suggest that the extent to which the system is characterised by high levels of trust appears to be an important factor impacting on behaviour and performance. Incentive structures which convey to individuals that they are trusted are important for intrinsic motivation and are less likely to be perceived as threatening and unfair by those who are the targets of incentives.

The incentive system changes we discuss can be seen as part of a wider trend in health system reform away from trusting individuals. However, the degree to which incentives systems embody trust in professionals varies. The contrast between the GP contract, which allows practices to 'exception report' patients and the California system, which conveys to clinicians that they are not trusted and leads to dysfunctional consequences is a clear illustration of this point. A system which monitors outliers as opposed to assuming all practices will cheat given the chance would seem preferable therefore. Similarly the fact that QOF data are extracted from the computerised records of practices (in contrast to California where third party data are used) in addition to conveying trust, also contributes to a sense of ownership for practices concerned.

At the same time, a system in which PCPs are trusted does not imply that trust is limitless. Our findings illustrate that commissioners are becoming more involved in some aspects of contract monitoring, although in general many are not going beyond surface representations of performance. In part this may be because the levers at their disposal are inadequate (for example, the MUR guidance is insufficiently detailed to distinguish between MURs which appear to be value for money and those which are not). However, it also appears to be due to a lack of resources (time and data analytic skills in particular) to undertake more sophisticated analyses of performance (e.g. blood pressure time and date recording, expected versus observed prevalence for practice disease registers, change in dental treatment profiles over time). As PCTs move towards balanced scorecard approaches, in an effort to provide a more comprehensive picture of performance, there is a danger that such monitoring increases the breadth of surface features, but fails to capture important details underlying those.

Trust is not just related to monitoring mechanisms. Many PCPs in our study appear to have become accustomed to being accountable and providing performance monitoring data. At the same time, PCPs are trusted to varying degrees to undertake their work away from central controls on day to day activities. In the context of dentistry, however, the strict controls on volumes and UDA bands, suggests that dentists are not trusted to behave professionally in the absence of these controls. Understandably, dissatisfaction was highest under such low trust circumstances.

A further issue, linked to trust, concerns the expectations of PCPs, in terms of the actions to be taken when their performance is sub-optimal or worse (e.g. fraudulent). Our findings suggest that the extent to which PCPs, as a collective, view actions by some of their membership as legitimate varies between groups of PCPs. GPs disapprove of 'other practices' whose QOF points reflect gaming or fraud and are generally supportive of monitoring across practices, particularly where this highlights deficiencies with private providers. Tick box MURs are by and large frowned upon by pharmacists, but there is some understanding that pressure from employers may force pharmacists down this path. Yet making treatment decisions based on rewards rather than clinical factors is viewed as 'human nature' rather than undesirable behaviour amongst most dentists. The extent to which PCPs view PCT responses to deficient or undesirable performance as reasonable therefore, is likely to vary between these groups of PCPs. Heavy handed surveillance or questioning of PCP performance can undermine trust. At the same time, a system of performance monitoring raises expectations that action will be taken

to address poor performance in other deficient organisations. If these expectations are not fulfilled (and the levers PCTs have at their disposal on this matter appear to be limited) then this may undermine faith in the system. The literature on trust and incentives emphasises the importance of conveying to individuals that they are trusted. The issue of individuals being able to place trust in systems to take action against those who violate the spirit or letter of the system's rules has received much less attention, but needs careful consideration if incentive systems are not to demotivate PCPs who participate in them.

Trust and expectations are also important in terms of the evolution of incentive systems over time. A prior history of trust does not necessarily enhance trust going forward. Our study suggests that the relationship is mediated by uncertainty and expectations of continuity. For example, the enhanced hours DES undermined trust because it was viewed as unfair, but it also created uncertainty about future changes to the GP contract. Similarly, the imposition of the dental contract marked an abrupt shift in relationships between dental practices and PCTs which undermined trust and increased uncertainty about the future. In the very small number of cases where the contract was welcomed, this was because the fixed contract volumes reduced uncertainty (of income and volume) compared with the previous regime. However, as the comments by most dentists indicate, late notification of future contract volumes led to increasing uncertainty which undermined faith in the system and trust in PCTs. Whereas normative conventions and routines are key to the creation of trust in inter-organisational exchanges, our data suggest that these norms of interaction are changing over time, leading to a diminution of trust in inter-organisational exchanges.

## **8.5 RESEARCH AIM 4: describing local contextual factors which may encourage or limit responses to incentives**

### **8.5.1 General medical practice**

On the surface practices appeared to be becoming a lot more standardised and homogeneous in terms of differences within and between practices. As we describe, all practices had systems for chasing up staff members to meet QOF targets. However, these varied between practices, with some being more heavy handed than others. Whilst being chased prompted a range of reactions amongst participants, regardless of the impact on motivation, most participants reported responding by undertaking the requested activities. Furthermore, although practices varied with regard to their history of working together, extent of (formal and informal) hierarchy

and practice philosophy, it was difficult to discern any relationship between these factors and performance. In part this may be due to the fact that performance, in quantitative terms as measured by QOF, is high on many indicators, for many practices.

Similarly, the extent to which the distribution of rewards relative to effort was perceived as fair varied within and between practices. However, in terms of performance, even participants who reported being very unhappy about this responded to QOF prompts and targets. In part, this was because they were motivated to undertake QOF related activities, even in the absence of rewards. It was also related to the inability to go elsewhere or the desire to secure a partnership within one's existing partnership.

In some practices, allowances were made for staff who objected to certain targets or who were not always diligent with respect to QOF targets. The importance of having a voice and feeling supported was a recurring theme in interviews and the stories about a lack of emotional support (e.g. being bullied) suggest that support also included some emotional component rather than relating to physical structures or processes.

Practice populations appeared to have some influence on attitudes, though not always on performance. For example, for practices with large student populations, diabetes and asthma targets proved to be a challenge since these younger patients rarely visited the surgery compared with older patients. Performance suffered accordingly, because these targets were less amenable to practice control. In contrast, practice staff in retirement communities with very elderly populations complained about the harshness of target regimes for these patients, but complied with QOF targets nevertheless.

APMS in underdoctored area appeared to cause less resentment than Darzi practices, with the latter seen as undermining existing provision of adequate care. Similarly, GPs in a social enterprise in an area of high deprivation had very different attitude to 'consumerist' reforms from most other practices. The fact that GPs had previously been PCTMS staff and were now much more in control of their destiny also appeared to predispose them favourably to reforms which they saw as improving services for patients in this area of high deprivation. The very low morale reported by other PCTMS GPs suggests that PCTMS practice GPs may well be negatively predisposed to changes in incentive structures which reduce their control over their working environment and leave them feeling undervalued. However, for new entrants to PCTMS practices, with no

experience of working in a traditional partnership, these factors may be less of an issue.

The broader context in terms of relationships with the PCT and membership of PBC consortia also exhibited wide variation. Here these variations did appear to have an impact, with good relationships around PBC leading, in the context of a shared history of working together, to greater involvement and/or support of rank and file GPs, the identification of savings and reinvestment in new services. Conversely poor relationships, PCTs undergoing a protracted reconfiguration process, a history of support for fundholding (at the practice level) and a consortium boundary that did not reflect common shared interests and population flows, were all factors that hampered attempts to make progress on PBC. In terms of practices which had bid for APMS contracts, whether or not the bid was successful coloured practices views of and relationships with PCTs. However, even where practices were unsuccessful, they continued to contribute to the PBC and practice level targets, in part because these were requirements for participation in future bids.

In summary, underpinning convergent levels of QOF performance, practice organisation and populations were subject to variation. The impact of local factors on performance does not appear to be high, in terms of QOF at least. It is stronger for PBC. In both cases there is an element of practices participating because this is a top down requirement. For PBC where "participation" is a relatively fluid concept, practices can "participate" by doing very little. In contrast, for QOF, where targets are fairly specific, some staff respond by undertaking activities which they view as inappropriate. Whilst this contributes to high levels of performance, the longer term effects on morale and turnover are unknown, but may be detrimental to the contract's recruitment and retention goals.

### **8.5.2 Community pharmacy**

Whilst GPs and their staff did not complain about a lack of adequate resources to do their job (which may in part reflect an adaptation to less than ideal premises or the fact that GP owners are responsible for the practice premises), this was more of an issue for pharmacists. An obvious local factor influencing responses to incentives was the availability of a consultation room for providing services such as MURs. Some pharmacists were frustrated at the lack of these facilities and with regard to responses more generally, where locums encountered poor or non-functioning equipment, this acted to demotivate them, leading in some cases to avoidance of those places in the future. Pharmacists acting as long term locums were more likely to report being motivated to undertake MURs and this was



related to other factors, such as knowing and trusting the support staff.

The location of the pharmacy and community it served was important. In some cases pharmacists worked in city centre stores which served a working age population, with little time to spare and whose requirements related to prescriptions for acute conditions rather than to repeat dispensing opportunities. Other pharmacies served a local community of patients on long term medication which provided more opportunity for intervention. Close working relationships with GP practices were also important and where these existed they tended to be between organisations that were in close proximity to each other.

Supermarket pharmacies could be problematic in terms of detracting from the image of pharmacy as a professional service, but also because staff rotation for non-pharmacists was described as detracting from continuity and the ability to build up a core of experienced staff.

The location and type of pharmacy was also important in terms of PCT services commissioned. For some services, PCTs targeted areas which exhibited certain demographic characteristics. Whilst this motivated the staff working in those areas, for pharmacists outside these areas, the lack of opportunity to use their skills contributed to frustration.

The degree to which multiples were seen as supportive and applied MUR targets varied. There was a consensus that particular multiples were much worse than others with regard to targets, so that working for a multiple did not necessarily predispose staff to feel pressured around MURs. Similarly for some multiples, these pressures contributed to a lack of motivation to conduct MURs and in some cases tick box MURs being conducted.

The risk of being isolated was a recurring theme in pharmacy interviews. In all settings the requirement to discuss mistakes with staff and work alongside them all day was described as uncomfortable. However, this was easier where trusting relationships had been established. There were also variations in terms of opportunities for support from colleagues in other pharmacies or line managers further up the organisation. Where these opportunities existed, pharmacists felt less under pressure and less lonely.

### **8.5.3 General dental practice**

Our dental interviews covered a wide range of settings and included dentists who were leaving the NHS, those who balanced private and NHS work and others whose practice was almost entirely NHS. Despite these variations, in broad terms practices were organised along similar lines, with dentists working on their own patient population and limited hierarchy. Within practices, despite the different contracts negotiated with associates, there was a tendency towards UDA related contracts for associates. So that within-practice variations on issues (such as hierarchy, distribution of rewards, having a voice, adequacy of resources) did not appear to be huge, nor were they major sources of dissatisfaction.

There were a small number of dental practices where relationships with the PCT were not described as very poor, but generally it was difficult to identify local contextual factors which were important in encouraging or limiting responses to incentives.

## **8.6 RESEARCH AIM 5: investigate the ways in which incentive structures and regimes and their associated impacts evolve and transform over time**

### **RESEARCH AIM 6: analyse the (longitudinal) relationships between changes in incentive structures and the performance and behaviours of PCPs**

Under aim 3 we report the impact of reforms which change incentive structures, as observed over the 3 year study period. Here we focus on the impact of changes to the incentive structures introduced after the study commenced.

As outlined in section 2, there were no changes to dental or pharmacy contracts following their initial introduction during the study. However, reforms to the GP contract meant that incentive structures did change and we report on this below.

#### ***General medical practice***

Changes to QOF thresholds in 2006 (even where many practices were already achieving these raised target thresholds) and what was perceived as a miserly cost of living increase led to more emphasis being placed on money and highlighted dependence on QOF income to fund additional staff recruited to deliver QOF. It also signalled to practices that government may become increasingly demanding, wanting increased productivity, without a corresponding increase in

resources. This and the requirement to open for extended hours may be perceived as a loss, which may explain (as predicted by the loss aversion literature) why doctors felt so aggrieved at these developments. This led to removal of bonuses within practices, which meant losses for other staff in the practice. Furthermore the emphasis on rewards linked to more demanding target levels may threaten to undermine intrinsic motivation and this appears to have been the case for at least some of our participants.

The issue of extended hours appeared to have had a major negative impact in terms of GP morale and trust in the government more generally. This provoked strong feelings in interviewees, but over time most practices settled into providing this service. An attitude of initial anger (to minimal cost of living increases, the requirement to extend opening hours), to be replaced by resignation over time was a recurring theme in our interviews. The experience of changes being imposed led to suspicion and mistrust with regard to relations with government and to the incentive initiatives more generally. At the same time the expectation that the process would involve unfairness also appeared to contribute to acceptance and coping rather than outright resistance or rebellion.

Our findings raise questions, however, about the willingness of private sector providers to cope with whatever is thrown at them. The extent to which owners and managers of private limited companies, which are entering the market, would be so willing to accept changes such as the extended hours imposition (and in the future retiring indicators), particularly if they threaten their investment and ability to accumulate capital, remains to be seen.

## **8.7 Concluding remarks**

This section has drawn together and discussed the findings from our empirical work. In the following section we outline the implications for policy and future research.

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## 9 Conclusions and Recommendations

### 9.1 Introduction

The foregoing has been concerned with the identification and analysis of the incentive structures facing PCPs in a range of primary care settings. In this section we summarise conclusions from the research. We then provide checklists which we recommend be used by those charged with developing incentive regimes within primary care. We also present recommendations with regard to the key areas for further research and the appropriate methods that should be used in this research.

### 9.2 Conclusions of the research

Incentives acted as powerful levers to change behaviours, resulting in

- a contribution to high levels of attainment of quality targets and a reduction, over time, in the variation in care quality related to deprivation in general medical practice
- increasing volumes of incentivised activities in community pharmacy
- a shift towards dental treatments which pay more, relative to effort expended

With regard to the opportunity cost of the incentive initiatives, our findings in relation to general medical practice raise concerns about the extent to which additional investment represents value for money. Furthermore, the finding that for asthma care, the mean score for care that was not linked to incentives declined after 2005, whilst the mean score for care that was linked to incentives increased suggests that there may be some losses associated with the focus on QOF activity.

Our study also raises questions about the value of paying pharmacies for conducting MURs in a context where the quality of MURs is highly variable.

The finding that dentists are taking advantage of the perverse incentives in the contract to avoid patients with potentially high levels of need also suggests that oral health gain may be reduced, with those in greatest need having poor access to services, following the introduction of the contract.

### **9.2.1 Possible considerations for future contracting arrangements for primary care professionals**

In this section we examine whether the new contracts for primary care professionals could have been designed differently to produce greater benefits and/or fewer unintended consequences. We also look forward discussing the future policy direction and steps that can be taken to improve the way in which the contract regimes operate.

#### **GP contract**

According to the National Audit Office (NAO 2008) the Department of Health in its 2002 business case to the Treasury, outlined 13 benefits that it expected the new contract to deliver. These are contained in Table 17 below.

**Table 17. NAO assessment of progress made against the benefits the Department of Health listed in its business case to HM Treasury.**

	Expected Benefits	Progress to date
Increasing NHS Productivity	Gross productivity gains (above a do-nothing scenario) of 1.5 per cent in the first year, rising to 4.5 per cent within three years and continuing for up to eight years.	Progress has not been demonstrated.
Re-designing the services around patients	Basing allocations on the need of the local population with flexibility to shape services around local needs.	Progress has not been demonstrated.
	Greater freedoms for patients to see their GP of choice and choose their own length of consultation. Patient satisfaction will be	Progress has been made on aspects of access but there is still scope for improvement.

	measured and rewarded.	
	Incentivise and provide resources for the modernisation of infrastructure supporting the delivery of primary care, including modern and fit-for purpose premises.	Some progress has been made in providing extra resources for premises although the new GMS contract has no specific mechanism in place to incentivise practices to improve GP premises.
Designing the right jobs	Continued improvements in skill mix in practices, encouraging the roles of nurse practitioners and health care assistants.	Some progress has been made on changing skill mix but the impact on value for money or patient care is not yet clear.
High quality care and linking pay and performance	QOF will place greater emphasis on rewarding high quality services, rewarding outputs and quality rather than inputs. Local flexibility to further reward high performers.	Some progress has been made... It is too early to say conclusively if the QOF has led to improved outcomes for patients but some evidence exists to suggest that modest improvement has been made in controlling asthma and diabetes.
	Promote a culture of clinical governance and service improvement by explicitly rewarding GP time commitment on clinical governance, accreditation and CPD.	Some progress has been made in incentivising GPs to improve clinical governance through the QOF.
Reduced administration	Less complex system for fees and allowances.	Some progress has been made by introducing a less complex system of fees.  However the majority of GPs and PCTs still believe the new contract has not reduced administration.
Extending the range of patient services	Reducing the pressure on secondary care services and allow for greater continuity of patient care through further development of	Some progress has been made in delivering new services..... The introduction of the new contracts has coincided with an increase in

	GP specialist services.	emergency hospital admissions which is not necessarily attributable to the new contract
	Addressing funding inequalities will mean practices are more likely to offer a fuller range of services and reduce the need for patients to travel to hospital for diagnostic tests and treatment.	Some progress has been made and the new contract offers the chance for GPs to offer wider range of services away from hospital.. However, few PCTs have maximised the opportunity to commission more locally enhanced services based on patient need.
Overall measure of participation	Increase the number of full-time equivalent GPs by 300 in the first year of the contract and by 550 within three years.	Good progress has been made. The number of GPs has increased in the first three years of the contract. There are a number of other initiatives which may have contributed to the increase in GPs and therefore it is not clear how much the new contract has contributed to this improvement
Recruitment and retention	<p>Introduce a much more progressive career structure for GPs, involving a three-tier system, reflecting intensity of work, maturity and experience.</p> <p>Introduce a return to work package and review pension arrangements to provide better reward for NHS commitments in the later years of working life.</p>	Good progress has been made on increasing the number of GPs. It is, however, too early to say if the new contract has helped retention... some GPs report that it is becoming more difficult for young GPs to become partners.
Better staff satisfaction and morale	Increase employment options for GPs, for example job-share, or time working from home.	Some progress has been made but increases in satisfaction of GPs have not been sustainable.

Source: Adapted from National Audit Office's assessment of the progress made against the benefits the Department of Health listed in its business case to HM Treasury.

This table highlights the many challenges that the contract was intended to tackle simultaneously. This means that assessment of whether the policy could have been designed better should go beyond a narrow focus on improving quality of care, as measured by QOF. There may need to be tradeoffs between the different goals outlined, resulting in progress being slower in some areas than others. According to the NAO, however, in many areas progress has been slow.

Our findings of relatively modest improvements (for what was a substantial investment in primary care) highlight a key problem with the design and implementation of the contract and in particular the QOF. In the absence of a baseline, policy makers estimated the likely levels of attainment of QOF targets and budgeted accordingly. As the NAO report points out, this led to a large overspend in respect of QOF. The absence of baseline data combined with a 'big bang' (rather than small scale pilot) approach to implementation appears to have been a flaw in the policy which resulted in high levels of expenditure for somewhat modest 'quality' gains.

The original payment formula resulted in practices with high prevalence of the incentivised conditions receiving less remuneration per patient – in some cases substantially less – than practices with low prevalence. This was a deliberate feature of the formula (the intent being to minimise disparities in payments to practices) but the extent of the differences in remuneration per patient was not anticipated because the formula was not adequately modelled <sup>144</sup>. The formula was finally amended in 2009.

The achievement thresholds – both minimum and maximum – were vaguely defined in terms of purpose and were initially set arbitrarily. The failure to provide an adequate definition for the thresholds undermined subsequent attempts to reform them. With respect to setting thresholds, although there was limited evidence at the time to enable a more evidence-based approach to setting thresholds, making an arbitrary approach necessary, a wealth of data now exist on which to make more informed decisions on thresholds. In 2009 NICE was given the task of making recommendations regarding achievement thresholds, but the final decision remained with negotiators (i.e. NHS Employers and the General Practitioner Committee). Despite over half of practices exceeding the maximum achievement threshold for all but three of the clinical indicators in 2009<sup>145</sup> thresholds were not adjusted. The financial incentive for practices to improve their performance has therefore been removed in most cases.

Large increases in resources (and income for GP partners) might be expected to help improve recruitment and retention, but our data



suggest that in response to changes to the QOF regime (in particular the perceived imposition of the extended hours arrangements, but also new indicators which GPs felt were less well supported by evidence than the first set of targets) and a shortage of partnership opportunities, initial enthusiasm for the contract reported by early studies<sup>116</sup> was waning. This links in part to a criticism of the contract policy raised by the NAO report; the fact that QOF was introduced without a clear strategy for future years. Subsequently policy evolution appears to have been in part a reaction to the high levels of spending and attainment in year 1 of the QOF, attempting to extract more activity (e.g. by asking practice to extend opening hours) for minimal resource increases. Based on our data, subsequent changes to incentive structures have been perceived as creating uncertainty leaving GPs on the defensive, with many GPs feeling that they have no voice or choice in the incentive process.

The Secretary of State for Health's comments that "If we [had] anticipated this business of GPs taking a higher share of income in profits we would have wanted to do something to try to ensure that the ratio of profits to the total income stayed the same"<sup>146</sup> also adds to the impression that the contract was introduced without a detailed consideration of the likely consequences – intended or otherwise.

A criticism of QOF is that the points allocated to each indicator were intended to reflect estimated workload for practices rather than population health gain. There is therefore a risk, where there is a mismatch between workload and health gain that practices will focus on the more profitable, labour intensive activities which have relatively low gains in terms of population health. However, switching rapidly to a system based on incentives related to health gain could jeopardise the potential of the contract to secure improvements in other areas (e.g. recruitment and retention). Furthermore remuneration based on health gain may have made it difficult to secure agreement from the profession in the period prior to the introduction of QOF,

In terms of the future direction of QOF, responsibility for managing the process to develop the clinical and health improvement indicators has been transferred to NICE. This process involves prioritising areas for new indicator development, developing and selecting indicators, and ensuring consultation with individuals and stakeholder groups. The intention is to establish a more independent and transparent process for reviewing and developing indicators. A more transparent and consultative approach to developing the content of the GP contract should increase the likelihood that incentivised activities are evidence based and likely to generate health gain. Given the demoralising impact of the introduction of the extended hours DES, which was viewed as lacking an evidence base, unlikely to generate health gain and something imposed, rather than consulted on, these changes are a welcome step forward.

NICE's role concerns the development of indicators which are underpinned by an evidence base and are cost effective. Their remit includes health improvement and reducing inequalities and the evidence base should in theory be used as part of the contract negotiations, the allocation of points to indicators will be subject to discussion and agreement by contract negotiators, as opposed to NICE. This will provide some flexibility to take account of effort as well as evidence when allocating points to indicators.

The NICE process will also involve 'retiring' indicators where the activity being measured has become part of standard clinical practice, so that no financial incentive is provided for undertaking such activities. Our data suggest that it will be important, however, to continue to monitor performance in these areas to ensure that performance does not decline in the absence of financial incentives.

Going forward, greater use should be made of piloting. The NICE process involves piloting indicators, rather than introducing them in a 'big bang' fashion. This should improve the ability to learn from experience and refine indicators. Since pilot practices are volunteers, it should also encourage a spirit of learning in a participative and consultative way, thereby reducing the unsettling impact of changes reported by our participants.

The exception reporting element of QOF has come under scrutiny from a number of quarters, raising questions about the desirability of continuing with this practice. We found relatively low rates of exception reporting with relatively little variation between practices. A slightly greater percentage of patients were exception reported in areas of high deprivation. This observed rate of excess for these areas increased slowly over time, although this has been interpreted as indicating that practices are responding to 'patients' needs rather than to the imperatives of impersonal guidelines'<sup>147</sup>. In 2006/7, when the maximum threshold was increased from 50% to 60%, the mean exception reporting rate for the 1680 practices with achievement rates of between 50% and 60% in 2005/6 increased to 25.9% from 15.7% in 2005/06. One implication of our data is that the generally low exception reporting rates observed for most practices across most indicators, and the shallow socio-economic gradient in exception reporting, may be partly attributable to historically low maximum thresholds. More challenging maximum thresholds may lead to the development of steeper socio-economic gradients in exception reporting.

Gravelle et al.'s study<sup>129</sup> finds evidence of gaming with levels of exception reporting varying practice (as opposed to solely patient) characteristics (e.g. number of GPs per patient, extent of potential competition for patients from other practices, previously a fundholding practice). One way of reducing the ability to game the system would be to abolish the ability to exception report patients. The California system we investigated does not allow practices to

exclude patients from performance calculations, but it leads to undesirable consequences, with GPs feeling demotivated and in some cases asking patients to leave their list or bypassing informed consent procedures to meet targets. Rather than adopting a 'big bang' approach, outlawing exception reporting for future QOF rounds and conveying to all practices that they are not trusted, it would be preferable therefore, to monitor rates of exception reporting and to investigate outliers in greater detail.

We recommend that steps are taken to enable improved management and monitoring of exception reporting by implementing the following:

- 1) The reasons for exceptions should be recorded and collated centrally (at present only the total number of exceptions for each indicator is recorded on the central QMAS database).
- 2) There should be formal assessment of the use of exception reporting across practices with different patient demographics, to ensure the provision to exclude patients is not adversely affecting equity of care. This is particularly important in the case of newly introduced indicators and indicators for which maximum achievement thresholds are raised (as raising thresholds increases the incentive to exclude patients).
- 3) The acceptable reasons for excluding patients should be clarified to remove potential confusion or duplication – for example: there is one criterion for 'refusal to attend' and another for 'informed dissent'. It is not clear that how practices interpret and apply these categorisations when exception reporting patients. In this case 'refusal to attend' could be removed or recategorised as 'unknown', as the reasons for non-attendance are unknown and non-attendance is associated with poor outcomes, whereas 'informed dissent' should mean that the patient has been consulted and their wishes documented.
- 4) Practice behaviour with respect to exception reporting is linked to other elements of the clinical indicators, such as maximum achievement thresholds. Review of exception reporting should therefore not occur in isolation, but as part of the wider review of indicators (currently undertaken by NICE).
- 5) The provision to exclude patients carries the risk of inappropriate use and penalties for practices found to have abused the system should be severe.

In terms of monitoring and scrutiny more generally, we found that capacity (in terms of knowledge and resources) to engage in meaningful monitoring of contract activity varied widely between PCT commissioners. In a context of financial constraint, with commissioners seeking to reduce costs, recommending more resources for monitoring may be unrealistic. However, PCT managers reported a focus of energies on developing performance scorecards,

which combine data from a range of sources (e.g. QOF, prescribing, referrals), rather than refining their scrutiny and understanding of QOF data extracted from practice records. This made detailed scrutiny of data (and detection of abuse) less likely. It also resulted in a focus on comparisons of data which may not be meaningful. For example, balanced scorecard data do not normally include reporting of levels of exception reporting for indicators included in the scorecard.

We recommend therefore that commissioners shift their energies away from ongoing refinement of scorecards, towards an understanding of the data which underpins the scorecards. This would improve the ability to make meaningful assessment of performance in general medical practice.

### **Pharmacy contract**

The contract is intended to bring to fruition the objectives set out in *A Vision for Pharmacy in the New NHS* (July 2003), which are to

- be - and be seen to be – an integral part of the NHS family in providing primary care and community services;
- support patients who wish to care for themselves;
- respond to the diverse needs of patients and communities;
- be a source of innovation in the delivery of services;
- help deliver the aspirations within the National Service Frameworks;

and

- help tackle health inequalities.

Pharmacists in our study complained about the loss of income arising from policies to reduce the proportion of income derived from dispensing and to contain costs more generally (in particular the category M reimbursement reduction). However a recent report identified cost savings to the NHS of around £1.8 billion over the period 2005-06 to 2008-09 and productivity gains over these four years, with a 17 per cent increase in dispensing volumes being secured for an 8 per cent rise in payments<sup>136</sup>.

We identified an increase in the number of local enhanced services provided by community pharmacists and in the number of MURs undertaken in community pharmacy over the period since the introduction of the contract. However, our data raise concerns about the quality of MURs and the extent to which these represent value for money. Similar concerns are present in the pharmacy White Paper which recommends that MUR services be prioritised to meet health needs and that funding rewards health outcomes. Following on from this joint PSNC/NHSE guidance on quality MUR delivery and the

regulatory framework for MURs is being developed. A PSNC/NHSE medicines use sub-group has had extensive discussions on targeting MURs and other developments to address the White Paper action point. Proposals have been made to DH and the detail of implementing the first set of proposals is currently being discussed.

The national guidance on MURs was cited by commissioners as restricting their ability to improve the quality of MURs. In most commissioning organisations, pharmacy was a marginal activity relative to other areas such as hospital care. However, towards the end of our study we did identify one PCT (and there may be more) which had been working with local community pharmacies in an effort to ensure that MURs were of a high quality and were targeted at those patients who are most likely to benefit from them. This approach included engaging with key professional groups and redeveloping the referral process and forms to include triaging to PCT technicians or community pharmacists and for more complex cases, a full clinical medication review undertaken by a PCT practice pharmacist. This example suggests that commissioners need not necessarily need to be constrained by national guidance on MURs and that there is potential for voluntary arrangements which may overcome some of the perceived deficiencies in the MUR process.

### **Dental contract**

The contract was intended to remove dentists from the "drill and fill" treadmill, improve patient access and lead to a greater focus on preventative work. However, the dental contract has been the subject of some concern. A review in 2008 by the House of Commons Health Select Committee was critical of the contract, concluding that access was not improving quickly enough, despite very significant increases in the dental budget. Members voiced concerns about the quality of the service provided and the ability of PCTs to manage contracts and commission services to meet local needs. This led the Secretary of State to commission an independent review of dental services.

In terms of what could have been done differently, much greater thought could have been given to the perverse incentives contained in the contract and the potential for unintended consequences resulting from these. It is not clear how the contract mechanisms were intended to achieve their aims such as incentivising prevention so a clear articulation of cause and effect relationships with regard to intended outcomes should also have been made prior to introduction.

The independent review of dental services ('the Steele Review'<sup>59</sup>) reported that 'We saw and heard from practices where dentists felt under financial pressures, where staff felt disenfranchised and, most concerning of all, where clinicians were interpreting NHS care in a way that was not intended and not necessarily conducive to

improving health. Such interpretation represents a substantial waste of public resource.'

The review recommended a blended contract with a proportion of payments made for activity to incentivise provision of treatment and a proportion of the contract to pay for quality to improve access, provide effective preventive care and ensure continuity of care. As part of the process of explicitly recognising in the reward system the quality of service and the outcomes it achieves, the review also recommended that a high priority be given to developing a consistent set of quality measures. These should be national, rather than locally developed indicators. Robust piloting of the recommendations before major changes were made to the contract was also emphasised.

Our data suggest that many of the concerns and criticisms of the Health Select Committee were justified and our findings resonate with those of the Steele Review. We also identified a breakdown in trust and a willingness to 'game' the system which was seen as a legitimate response to an unfair contract. In terms of the future direction, the dental pilots are due to commence this year. Robust evaluation is essential if the mistakes of the 2006 contract are not to be repeated.

### **9.3 Strengths and limitations of the research**

Our research combined a range of methods and analysis to provide a broad, yet detailed picture of responses to changes in financial incentives facing primary health care professionals. In addition to analysis of large scale national data sets, we undertook a large number of interviews to add depth to the analysis and to monitor changes over time. The research provides an understanding of impact in the different sectors and incentive regimes which were the subject of the study (i.e. general medical practice, general dental practice and community pharmacy). It also provides lessons for the design of incentive schemes which can be applied to health settings more generally.

A key limitation of the study relates to the assumption that general medical practices record activities accurately. We are also unable to comment with any degree of certainty to what extent the increasing trend observed in diabetes and asthma care in 2005 is a consequence of improved data recording as opposed to care delivery. Furthermore, with regard to the projections from the interrupted time series analysis, a limitation is our reliance on data relating to only 2 pre-QOF measurement points (1998 & 2003). Whilst our interview data do not enable us to quantify the magnitude of trends before and after QOF, the fact that many staff claimed that QOF was rewarding existing good practice in the management of chronic conditions, which had been steadily improving in the pre-QOF years is consistent

with our quantitative interpretation of improvement in the period prior to 2004.

Additionally, our opportunistic approach to recruitment of all participants in the qualitative component of the study means that we cannot claim they are representative of the general population of groups from which they are taken. However our large number of interviews in a range of organisations at different points in time and the fact that many reports were substantiated by our quantitative analysis suggest that we can place some reliance on the accounts of our participants.

#### **9.4 Potential considerations when developing changes to incentive structures**

Our data illustrate that incentives can act as powerful levers to change behaviours, (resulting in for example, high levels of attainment on QOF targets, increasing rates of MURs, changes to dental treatment profiles). The research demonstrates the relative effects that different blends of incentives have on PCP provider and commissioner roles and relationships, with different blends or incentive mixes producing different results, in different contexts. Our findings have implications for policy makers, in terms of the goals, design and implementation of incentive structures as we outline below. We identify unintended consequences of changes, however, these are not necessarily unpredictable. Thinking about the likely consequences at the planning stage is essential if such consequences are to be minimised. There is no one perfect blend of incentives applicable to all settings. We discuss below the issues that should be considered when planning changes to incentive structures.

### **9.4.1 Understanding the status quo and piloting**

Policies which seek to change behaviour and services should be informed by an understanding of current performance. The absence of a pre-QOF baseline led to an overspend against budget for QOF payments, as well as accusations that the targets were too easy, generating relatively little return for a substantial investment of resources. Linked to this, it is recommended that future changes to incentive structures (even where baseline data are available) should be subject to piloting and evaluation, rather than being implemented in a 'big bang' fashion.

### **9.4.2 Goals of incentive structures**

As our findings illustrate, recent changes to incentive structures in primary health care take different forms in different service (general medical practice, community pharmacy and general dental practice) contexts. The goals of the policies in each of the contexts appear to be many and varied. Importantly, these goals are not necessarily mutually compatible and policy makers would be unwise to assume that complex problems can be resolved by relatively simplistic financial incentive initiatives. For example, changing the QOF points system to reflect health gain, rather than effort as in the current system, may, *prima facie*, increase benefits to patient populations. However, it is unlikely to improve recruitment and retention of GPs, which is another goal of the contract reforms. Furthermore, problems with recruitment may have adverse consequences for population health gain. When designing incentive structures, therefore, it is recommended that consideration be given to the following

- the goals of the incentive initiative
- the extent to which these are mutually compatible
- for each specific goal - identify the incentive(s), the way it is assumed to influence behaviours and the assumed outcomes (intended and otherwise) of these behaviours
- where goals conflict, the extent to which it is possible to prioritise some goals over others
- the likely consequences of prioritising one goal (e.g. UDA volumes) over another (recruitment and retention of dentists)



### 9.4.3 Trust and incentive structures

As our findings illustrate, the extent to which the system is characterised by high levels of trust appears to be an important factor impacting on behaviour and performance. It is recommended that consideration is given therefore to

- the nature of trust and the limits of trust within incentive systems as well as the likely impact on current relationships of planned changes to incentive structures
- the sanctions to be applied when trust is abused and/or when performance falls below acceptable levels (which in turn implies some explicit definition of 'acceptable')
- the transaction costs and (non financial) consequences of various levels of monitoring and surveillance which may underpin incentive regimes
- the likely evolution of the initiative over time (for example is the plan to retire indicators and if so, is this agreed in advance with PCPs?) and the mechanisms for reducing uncertainty in this process

### 9.4.4 Designing incentive structures

- As our findings illustrate, incentives go beyond financial inducements. Furthermore, the way that incentives impact on behaviour and performance is highly dependent on the context in which they are implemented. Our research, which outlines the relevant contextual complexity, permits a view of the factors influencing the impact of such initiatives, which policy makers should consider when developing initiative to change incentive structures. These are outlined below as a checklist that we recommend be used by those designing incentive initiatives. The extent to which the message is clear and targeted properly
- The extent to which those who are targets of incentives are able to respond in the desired way
- The extent to which the desired result is subject to significant influence by those who are targets of incentives
- The extent to which the organisational setting provides the capacity to respond to incentives
- The extent to which what is being measured is perceived as accurate
- The extent to which what is being measured is perceived as fair and legitimate

- The extent to which changes to incentive structures are perceived as threatening
- The extent to which rewards relative to effort are perceived as fair (in absolute terms, but also in comparison to others)
- The extent to which those who are targets of incentives feel that they have a voice in the incentive process (particularly when exit not an option)
- The level of 'perceived public service efficacy' amongst PCPs concerning the benefit that organisations provide to the public
- The extent to which exit is an option for those on the receiving end of changes and the implications of exit for service users

In order to apply this checklist, it is necessary to follow the steps outlined in sections 9.4.2 and 9.4.3 first. For example, the process of identifying the incentive(s), the way it is assumed to influence behaviours and the assumed outcomes (intended and otherwise) of these behaviours, will mean that consideration is given to the ways in which messages are to be targeted. This needs to be clearly stated, before an assessment of the extent to which the message is clear and targeted properly can be made.

It may not be possible to grade each of the above on a scale of 1 to 10, but it should be possible to reach a consensus in terms of high, medium or low on each of these points.

## 9.5 Recommendations for further research

This report provides evidence to inform the design of incentive schemes and to assess the likely impact of changes to incentive structures in primary care. Yet because of the pace of health system reform and the complexity of incentives, behaviour and performance in the NHS there is still much to explore about these important issues. Therefore we suggest that there remains a challenging policy and management focused research agenda around these issues in the NHS. Specific areas which warrant further and sustained investigation are as follows:

- Our quantitative QOF data show high levels of attainment for many indicators, but also illustrate the importance of perceptions of fairness, loss (as opposed to additional income foregone), trust and uncertainty in relation to PCP reactions to changes in incentive structures. The NICE Primary Care QOF Indicator Advisory Committee has recently recommended that some indicators are removed from QOF<sup>148</sup>. Further research is recommended therefore, using quantitative and qualitative

(preferably ethnographic research to capture in real time responses and behaviour changes) methods to follow through the impact of this policy in practices.

- Our qualitative research highlighted culture change in general medical practices and pharmacies, with a shift towards more rational cultural forms<sup>67</sup>. Since there are possible negative consequences associated with this shift, it is tempting to recommend that these developments be monitored over time using a mixed methods approach. However, completion rates of culture questionnaires by practice staff, based on our previous experience, are unlikely to be high. Furthermore, since culture is a collective and shared aspect of organisational life, for measurement to be meaningful, it is essential to obtain both a high and representative (in terms of different types of staff within practices) response rate. Research is required which follows through these developments, but innovative research designs are needed which acknowledge and overcome constraints in relation to culture measurement in PCP organisations.
  
- Our research highlighted limitations in PCTs, with regard to the capacity to monitor performance in a meaningful way. It also identified the development of new (balanced scorecard) approaches to performance monitoring in primary care, though it is too early to assess the impact of these changes. SDO has recently commissioned research focusing specifically on commissioning and primary care respectively. In addition, the DH Policy Research Programme is funding research examining World Class Commissioning. Where gaps exist in these studies, in relation to commissioning primary care specifically, consideration should be given to funding longitudinal case study research which examines this.
  
- The importance of values, in relation to responses to incentives is a recurring theme in the literature. As our findings illustrate, these do not exist in a vacuum and the present study suggests that for dental trainees, socialisation processes are acting to undermine faith in and erode commitment to NHS practice. Ethnographic research to examine this socialisation process under the existing arrangements and the extent of any changes, following the introduction of a new dental contract would help shed light on this.
  
- The accusations of tick box MURs made by pharmacists and PCT managers suggest that further investigation is required here. We interviewed patients and pharmacists, but did not

observe MURs. We recommend that observational research should be commissioned in this area. This would also allow for an assessment of the impact of the 'responsible pharmacist' reforms introduced from October 2009. Because of the increasingly corporate nature of pharmacy, such research should capture events and actions beyond the individual branch pharmacy to look more broadly at responses to incentives further up the organisational hierarchy. Proposals have been made to DH on targeting MURs and the detail of implementing the first set of proposals is currently being discussed. Research which examines the status quo and changes to the MUR system will enable a greater understanding of the impact of MUR reforms.

- We identified increasing diversity with respect to the range of providers operating in the primary medical care market. We also detected subtle changes in attitudes amongst GPs with regard to APMS contracts and competition more generally. In part, this was influenced by participation in PBC processes. Some developments, such as the establishment of Darzi practices, occurred in the later stages of the study and we did not interview secondary care providers on the receiving end of PBC commissioning decisions. Further research which follows through these developments and incorporates a wider range of stakeholders would provide a more rounded and up to date picture therefore. Since QOF operates in UK territories outside of England, but policies such as PBC and market expansion do not, a comparison with Scotland, would help tease out the differential impacts of these different approaches.
- The recent review of the dental contract recommends changes and a blended contract encompassing elements of capitation and incentives for quality<sup>59</sup>. A longitudinal mixed method study will be essential to evaluate the impact of the new contract in practice.

With regard to prioritisation of these recommendations, our data raise concerns about the adverse effects of the dental contract and the 'tick box' nature of MURs. Given the role envisaged for community pharmacy in policy documents generally, the growth in MUR volumes more specifically and proposals being developed on targeting MURs, further research in this area is urgently required. Similarly, since dental pilots are being introduced this year, research to examine the impacts of a new dental contract is a priority in order to identify at an early stage, its impacts, intended and otherwise.

## 9.6 Concluding remarks

Our findings provide considerable support for key messages from the literature and highlight the multiplicity of factors influencing responses to incentives. They also highlight the contingent and dynamic nature of the relationship between these factors. The findings suggests that changes in values, definitions of professionalism and ways of working may be more rapid than is generally acknowledged, as well as illustrating the importance of the organisation (as opposed to atomistic PCPs) in contributing to these changes. In addition, they provide explanations grounded in empirical, rather than merely theoretical research, of the ways in which and processes by which changes in values begin to occur. The report also provides a set of checklists, intended to assist policy makers in thinking through the likely consequences of changes to incentive structures. Combined with the research agenda outlined above, the study contributes to the development of new and more sophisticated ways of conceptualising responses to incentives, which take account of the complex and dynamic nature of incentives, behaviour and performance in primary health care settings.

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## Appendix 1: Payment to practices under the QOF

Payment is determined according to a basic formula:

<p>Base Payment x QOF Points Scored x Prevalence Adjustment x List Size Adjustment</p>
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In 2004-5 the base payment was £76, and this was increased to £125 in 2005-6. Practices could therefore earn a basic QOF payment of up to £79,800 in 2004-5 and £131,250 in 2005-6. The basic payment is adjusted for disease prevalence by applying the Adjusted Disease Prevalence Factor (ADPF). This involves:

- Truncation – practices with prevalences of the relevant diseases below the 5<sup>th</sup> centile are assumed to have the same prevalence as the practice on the 5<sup>th</sup> centile<sup>1</sup>
- Transformation – a square root transformation is applied to the truncated prevalence<sup>2</sup>
- Rebasing – each practice's truncated, transformed prevalence is divided by the mean of the truncated, transformed prevalence for all practices.

The final payment to the practice is then determined by multiplying by the relative list size (practice list size divided by the mean list size for all practices). The effect of the ADPF is to reduce variation in payments to practices, so although practices with a higher proportion of patients with the relevant conditions receive more remuneration for a given level of achievement, they receive less per patient.

<sup>1</sup> On 1 April 2010, the current cut off arrangements will be discontinued, and true prevalence will be used to determine QOF payments.

<sup>2</sup> On 1 April 2009, the square rooting component of the current arrangements was discontinued.

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## Appendix 2: UDAs – A summary description of the system

A 'UDA' is defined as a "Unit of Dental Activity" undertaken by an NHS dentist.

A dentist is contracted by their PCT (Primary Care Trust) to do a set number of UDAs and dentists have to be within 4% of their contracted volumes. If dentists do not achieve their contracted number of UDAs they are financially penalised by their PCT (informally known within the profession as 'clawback'). If dentists carry out more than their contracted number of UDAs they do not get paid any more.

### **The 3 Band System**

This determines what patients pay and the amount of UDAs a dentist gets.

- Band 1 excluding urgent treatment - 1 UDA
- Band 1 urgent treatment only - 1.2 UDAs
- Band 2 - 3 UDAs
- Band 3 - 12 UDAs
- Issue of prescription - 0.75 UDA
- Repair of dental appliance (denture) - 1 UDA
- Repair of dental appliance (bridge) - 1.2 UDAs
- Removal of stitches - 1 UDA
- Stopping bleeding - 1.2 UDAs

#### **Band 1 - Diagnosis, treatment planning and maintenance**

Examination, x-rays, scale and polish, preventative work, for example an assessment of a patient's oral health, minor changes to dentures.

#### **Band 2 - Treatment**

Simple treatment, for example fillings (including root canal treatment), extractions and periodontal (gum) treatment.

#### **Band 3 - Treatment**

Complex treatment that includes a lab element, for example bridges, crowns and dentures (excludes mouth guards).

#### **Urgent treatment**

Examination, x-rays, dressings. Re-cementing crowns which have become loose, up to two extractions and one filling.

A UDA is variable, one UDA might be worth anywhere between £15 and £25, but can be more than this or less. The actual UDA payment to dentists varies according to where in the country a dentist is located (although it might vary street to street) and the amount of work historically carried out by the dentist before the new contract.

#### **What does this mean for the dentist?**

##### **Example - One Crown**

A dentist is allocated 12 UDAs for doing a crown. So if the UDA is valued at £25 it means a dentist is paid £300 for doing one crown (£25 x 12 UDAs). If a dentist does 2 or 3, or more crowns (s)he still only gets paid £300 even though (s)he has a lot more lab work to pay for.

**Example - Several fillings, x-rays, scale and polish**

A dentist is allocated 3 UDAs for doing the above work, so a dentist is paid £75 (£25 x 3 UDAs).

**Example - One filling**

A dentist is allocated 3 UDAs for one filling, so a dentist is paid £75 (£25 x 3 UDAs)

**Example - One extraction**

A dentist is allocated 3 UDAs for one extraction, so a dentist is paid £75 (£25 x 3 UDAs)

**Example - Root filling (a complex and time consuming process to do properly)**

A root filling might take 1-2 hours or more. A dentist is allocated 3 UDAs for a root filling so a dentist is paid £75 (£25 x 3 UDAs)

From the above examples it is clear that the UDA system, as it currently stands penalizes dentists for conducting more work e.g. the example with one filling vs. the example with several fillings still only attracts 3 UDAs.

[The information for this section was largely replicated from the website <http://dentistforum.co.uk/nhs-dentistry/what-is-a-uda/> and was accessed on 11/11/09]

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## Appendix 3: Changes to study design

### *Original Design*

4 Health Economies, with case study GP practices, pharmacies and dental practices. Interviews with patient forum reps.

Interviews & observation. 400 interviews p.a. – combination of formal & informal (i.e. conversations) interviews.

Up to 265 formal interviews for verbatim transcription & analysis over 3 year study period.

Repeat interviews Yrs 1, 2 & 3.

Quantitative analysis using routinely available and NPCRDC datasets in all 3 settings.

### **Revised Design**

Opportunistic interviews (snowballing etc) with PCPs wherever we can access them.

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Repeat interviews where possible.

Limited or no observation.

## **Revised Design – actual achieved**

### ***Qualitative analysis***

Interviews with PCPs & PCT staff in 24 PCTs over 3 years.

Approx 15% interviewed twice.

Additionally interviews with 20 Californian GPs for comparative analysis with 20 English GPs. 2007/08<sup>148</sup>

Interviews with 30 patients in Yr 3 of the study.

Focus group with dental vocational trainees Yr 3 of the study.

All interviews and focus group transcribed verbatim and analysed using Atlas Ti software.

### ***Quantitative analysis***

#### **General medical practice**

- changes in behaviour in general medical practice associated with changes in the system of remuneration
- changes in practice team size and composition, and the workload of doctors and nursing staff
- relationship between socioeconomic inequalities and delivered quality of clinical care, following the introduction of the GP contract
- rate of exception reporting for 65 clinical activities and the association between this rate and the characteristics of patients and medical practices

#### **General dental practice**

- changes in treatments following the introduction of the contract

#### **Community pharmacy**

- Descriptive analysis of changes in essential and enhanced services
- Analysis of trend over time in Medicines Use Reviews (MURs)
- Analysis of MURs over time by type of pharmacy

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## Appendix 4: Comparison of US and UK GPs.

In this part of the study, we examined the effects of financial incentives for performance in England and California to understand how differences in the design and implementation of these programmes influence their impact in primary care settings. Both programmes involve paying physicians based on performance against targets, but the number of targets is much greater in QOF compared with the California programme. QOF allows physicians to exclude patients (or report exceptions) if they refuse treatment, whereas excluding noncompliant patients is not permitted in the California programme. English GPs face a single payer and 1 pay-for-performance programme. We compared doctors' attitudes to this scheme with attitudes to the statewide initiative in California. Doctors in California, however, face other targets and pay-for-performance initiatives in a context of multiple payers and payment rules. In addition, in England, QOF was part of a broader programme of reform that greatly increased investment in primary care. In contrast, in the US context, there has been little new investment in primary medical care.

To understand each system and the unexpected consequences that might arise from pay for performance, we conducted face-to-face interviews with 40 primary care physicians. In the English sample (20) doctors were drawn from 2 regions. In the California sample (20) doctors were drawn from 4 organisations that ranged in size from 600 to 3,000 physicians and health care clinicians. In the largest of these organisations a decision had been taken to link a large percentage (up to 30%) of physician remuneration to the achievement of quality targets. In the other physician organisations, the percentage of remuneration linked to targets was substantially less (less than 5%). All English GPs in the sample used electronic medical records compared with only 7 physicians in the US sample.

The sample was identified using snowballing (a small number of informants put the researcher in touch with others, who then nominated colleagues and other contacts, and so on), a sampling

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technique used in qualitative research. The physicians interviewed worked predominantly in urban settings, though the populations served ranged from affluent to disadvantaged. To capture a broad spectrum of experiences and views, we sampled both salaried and self-employed physicians. The interviews were conducted by 1 researcher using the same topic guide, transcribed verbatim, and analysed thematically using Atlas Ti software (ATLAS.ti GmbH, Berlin, Germany).

Transcripts were analysed using a constant comparative method to interpret the data. Key concepts were identified using an open-coding method. Once coding was complete, the codes that had common elements were merged to form categories. Disagreements were discussed until a consensus was achieved. The interview schedule was open-ended and addressed reasons for entering primary care, likes and dislikes about work, and attitudes toward and impact of incentives on practice.

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## Appendix 5: Quantitative methods

### ***Using national and NPCRDC datasets to examine changes in behaviour in general medical practice associated with changes in the system of remuneration.***

#### **Interrupted time-series analysis (ITS) of the quality of care before and after QOF**

We conducted an interrupted time-series analysis of the quality of care in 42 representative general medical practices, with data collected at two time points before implementation of the contract (1998 and 2003) and at two time points after implementation (2005 and 2007). At each time point, data on the care of patients with asthma, diabetes, or coronary heart disease were extracted from medical records; data on patients' perceptions of access to care, continuity of care, and interpersonal aspects of care were collected from questionnaires. The analysis included aspects of care that were and those that were not associated with incentives.

#### ***ITS – data collection***

Trained research staff extracted clinical data from the medical records kept by 42 practices that were nationally representative in terms of socioeconomic deprivation, population density and type of housing, although small practices were under represented. The attainment of quality of care points under pay-for-performance for these 42 practices was typical of that achieved by all English practices in the first year of the new contract.

In each practice, data were collected for non-overlapping random samples of patients (20 in 1998 and 12 each in 2003, 2005, and 2007) who had heart disease, asthma, or diabetes; the data were collected with the use of quality indicators.

In addition, for patient evaluation, a version of the General Practice Assessment Questionnaire ([www.gpaq.info](http://www.gpaq.info)) was mailed, with one follow-up reminder, to a random sample of 200 registered adult patients (age,  $\geq 18$  years) in each practice. Rapid access to any doctor within 48 hours was associated with an incentive under the GP contract and our questionnaire included two items addressing the patient's ability to get an appointment within 48 hours with "any doctor" and with "a particular doctor." Because of concern that the scheme's focus on clinical indicators might lead practitioners to

neglect other aspects of care, we also analysed communication with GPs and continuity of care. Communication was assessed by asking seven questions, with the answers scored on a six-point scale ranging from "very poor" to "excellent"; continuity of care was assessed with the use of the same six-point scale and a single question: "How often do you see your usual doctor?" All scores were rescaled to range from 0 to 100. The rate of response to the survey was 38% in 1998, 47% in 2003, 45% in 2005, and 38% in 2007.

### ***ITS – data analysis***

We computed an overall clinical quality score for each patient in 1998, 2003, 2005, and 2007, which was based on the number of indicators for which appropriate care was provided, divided by the number of indicators relevant to that patient. This score represents the percentage, from 0 to 100%, of "necessary" or "indicated" care provided to the patient.

Practice-level quality scores were computed as the mean of individual patient scores in each practice. We computed separate quality scores for the subgroups of indicators that were assigned incentives under the QOF and for the subgroups that were not assigned incentives.

We analysed the data as an interrupted, or segmented, time series. In this model, the within practice variation was partitioned into three main components to provide independent tests of the slope in scores for the pre-introduction period (test 1); the change in level during the introduction period, allowing for the trend before QOF (test 2); and the change in slope from before to after QOF was introduced (test 3).

Practice was treated as a random effect, and robust standard-error estimates were used. The analysis for each outcome measure was conducted in two steps. In step 1, we used the interrupted time-series analysis to look for evidence that QOF was having an effect on the trend in scores over time, as indicated by a statistically significant result with respect to either the change in level or the change in slope (tests 2 and 3). The results of these tests determined step 2: if the results of neither test were significant, there was no evidence that QOF had affected the preexisting trend and we conducted no further analyses; if the results of either test were significant, there was evidence of an effect and we investigated this further by using the coefficients from the time-series analysis to compare the immediate- and long-term effects of the scheme (i.e., compare the slope during the introduction period with the slope during the post-introduction period) and to estimate the size of the effect on mean quality scores in 2005 and 2007.

We compared the trends in quality scores for the subgroups of indicators associated with incentives and indicators not associated



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with incentives by means of interactions between indicator set and the changes in level and slope within a regression analysis. If either interaction was significant, we took this as evidence that the trends varied by indicator set and next tested the interaction between indicator set and the change in slope from the introduction period to the post-introduction period.

The quality scores based on medical records and those based on patient evaluation are subject to ceilings of 100%, and many practices achieved this level on at least one indicator. The ceiling necessarily limits any linear trend in improvement, since a score on quality cannot exceed 100%. Analyses were therefore conducted on scores transformed to a logit scale. The transformation increases the weight given to score changes near the ceiling or floor — for example, score changes from 97 to 98% and from 55 to 65% are numerically equivalent (0.41) after transformation.

However, where possible, results are re-expressed in original units to facilitate interpretation. To assess the sensitivity of the findings to our statistical assumptions, we varied the method of statistical inference with the use of a bootstrap method, using 1000 bootstrap samples, and we assumed a linear model for the trend by repeating the analysis on untransformed scores. We report any results that differ from those of the primary analysis in our findings section of the report which follows immediately after our methods section.

### ***Limitations***

In terms of limitations regarding our analysis and results it should be mentioned firstly, that compared with the only other time-series analysis of the quality of primary care in England\* our study suggests that QOF has a greater impact on behaviour. Second, because practices were observed at only two time points before the introduction of QOF, we cannot say whether the rate of improvement was already accelerating as a result of earlier but still ongoing initiatives. Third, the statistical power of our study was such that only moderate-to-large differences in trend were detectable between indicators that were and those that were not associated with incentives. Fourth, response rates for the patient questionnaire were poor (38 to 47%), although there is no reason to suspect any differences in bias at the four study time points. Finally, we focused on three diseases for which substantial efforts had been made to improve the quality of care before the introduction of QOF. QOF might have a greater effect on conditions with lower profiles, including some introduced as the scheme developed (e.g., learning disabilities). \*QRESEARCH and The Information Centre. Time series analysis for selected clinical indicators from the Quality and Outcomes Framework 2001-2006. Nottingham, United Kingdom: QRESEARCH, 2007.

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[http://www.qresearch.org/Public\\_Documents/Time%20Series%20Analysis%20for%20selected%20clinical.pdf](http://www.qresearch.org/Public_Documents/Time%20Series%20Analysis%20for%20selected%20clinical.pdf).

### **Assessing workload in general practice in England before and after the introduction of the pay-for-performance contract.**

This analysis examined changes in practice team size and composition, and the workload of doctors and nursing staff, before (2003) and after (2005) the introduction of the new GP contract for general practice.

We hypothesised that the new contract would increase the team size with proportionately more care being delivered by nursing staff compared to doctors and greater attention given to the prevention of illness and the management of chronic conditions incentivised by the new contract. Doctors and nursing staff might also experience an intensification of their work – in terms of longer hours of work and/or increased complexity of work – should practices restrain growth in team size and seek to increase efficiency through task delegation from doctors to nursing staff.

#### ***Data collection***

The study used the same sample of 42 practices outlined above under the ITS study. All practices completed a Practice Profile Questionnaire that recorded the number and type of staff employed at the practice.

A 1-week workload diary was distributed to all full- and part-time GPs and nursing staff (including nurse practitioners, practice nurses and healthcare assistants) in each practice between February and August in 2003 and again in the same months in 2005. The diary was based on one used previously to assess the workload in general practice\*\*. For each day of the week, staff were asked to record the following information for each patient visit during working hours: patient age and sex; complexity of the visit from the practitioner's perspective (very simple, simple, complex, very complex); and the number and type of the patient's presenting problems (acute, chronic, prevention, other). At the end of the day, staff were asked to summarise their workday in terms of numbers of patients seen and total numbers of hours spent on direct patient care (e.g. surgeries, clinics, telephone consultations), indirect patient care (e.g. writing referral letters, case conferences) and non-clinical activities (administration, teaching, other).

\*\* Gosden T., Sibbald B., Williams J., Petchey R. & Leese B.

Paying doctors by salary: a controlled study of general practitioner behaviour in England. *Health Policy* 2003; 64(3): 415–423.

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***Data analysis***

Analysis was restricted to practices that completed diaries in both 2003 and 2005. Data were analysed at practice level without adjustment for patient list size, which remained stable in all practices over the period of observation. Changes in team size, list size and time spent on aspects of care were based on paired before and after comparisons using the paired t-test or the non-parametric Wilcoxon signed-rank test where appropriate. Changes in types of presenting problems and the complexity of visits were assessed using the chisquare test, and the change in average problems per visit was assessed by the unpaired two sample t-test. All tests were two-sided. Reported confidence intervals assume a normal distribution.

***Strengths and weaknesses of this analysis***

The practices included in this analysis are representative of the wider population of practices. However, workload diaries have an inherent degree of inaccuracy despite being the preferred method for gathering work information from large numbers of practices. As the propensity to over/under estimate time commitments is likely to have operated in a similar way across all practices in both time periods, we have no reason to suppose that the observed differences over time are biased.

Proportionately fewer GPs and nursing staff completed workload diaries in 2005 than 2003 and non-response in both years was higher for doctors than nursing staff. If nonresponders worked less intensively (e.g. fewer hours seeing less-complex patients) than responders, then it is possible that nursing staff experienced little or no increase in workload while doctors experienced a marked decrease.

Alternatively, if non-responders worked more intensively than responders, we will have underestimated the magnitude of the change in workload for both doctors and nursing staff, but the underestimate will be greater for doctors. Even so, the increase in workload for doctors would appear lower than that for nursing staff. As we did not collect the workload data from all staff, we cannot say in what ways the work of allied health professionals and administrative staff may have altered the work of the GPs and nursing staff we studied.

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## **Analysis of the relation between socioeconomic inequalities and delivered quality of clinical care**

We aimed to examine the pattern of socioeconomic inequalities with respect to delivered quality of clinical care in the first 3 years of the incentive scheme in England and to changes in quality of clinical care during this time. We examined both patterns in achievement against the clinical quality indicators and in the number of patients who were excluded from the scheme by practices.

For the clinical indicators on the quality and outcomes framework, practices are awarded points on a sliding scale on the basis of the proportion of eligible patients for whom they achieve every target. The minimum achievement threshold was initially 25% (ie, practices must achieve the target for at least 25% of patients to receive any points) and the maximum threshold varied according to the indicator. The maximum number of points awarded also varies by indicator. In year 1 (2004–05), each point earned the practice £76, with adjustment for the relative prevalence of the disease and the size of the practice population. This sum was increased to £126 for years 2 and 3 (2005–06 and 2006–07). The clinical indicators were revised for year 3, with minimum achievement thresholds raised to 40% and maximum thresholds raised for some indicators. Furthermore, 17 new indicators were introduced, 32 existing indicators were combined or revised, and three were dropped. Our analyses relate to the 34 clinical activity indicators that remained substantially unchanged and a further 14 that underwent only minor revisions.

### ***Data gathering***

We derived data for practice performance on the clinical indicators from the quality management and analysis system, which is operated by the NHS information centre.

This system automatically extracts data from practices' clinical computing systems, including the number of patients deemed appropriate for every indicator—i.e.,

those who were in the subgroup specified by the indicator and were not excluded by the practice ( $D_i$ ), and the number for whom the indicator was met ( $N_i$ ). Since year 2, extracted data have also included the number of patients who were excluded by the practice ( $E_i$ ).

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***Statistical analysis***

We calculated practices' reported achievement for every indicator in each year as  $N_i/D_i$ . A summary outcome score for each practices' overall achievement on the clinical indicators was constructed as an unweighted mean of the scores for every indicator. This method prevented highly prevalent indicators from dominating and kept the differences arising from heterogeneous practice populations to a minimum. Because there might be socioeconomic patterns to account for the exclusion of patients that would affect patterns for reported achievement, we also analysed rates of exclusion for years 2 and 3, which were calculated as  $E_i/(D_i + E_i)$ . We calculated summary outcome scores as for reported achievement. The distributions of both outcome scores were highly skewed and were therefore summarised with medians and Interquartile range; however, the very large sample size justified the use of parametric methods for inferential testing. We confirmed the resulting p values by means of bootstrapping.

Information about practice and patient characteristics was taken from the 2006 general medical statistics database, which is maintained by the Department of Health. Practices were grouped into quintiles of equal size on the basis of the level of area deprivation in the census super-output area (a standard, stable unit of geography used in the UK for statistical analysis; average population 7200) where they were located, with data from the Index of Deprivation 2004. We calculated the odds of practices from each quintile being in the top and bottom performing 5% of practices with respect to achievement and rates of exclusion by logistic regression. We estimated the associations of practice-level characteristics with practice achievement, exclusion of patients, and changes in these outcomes with multiple linear regressions.

These analyses controlled for missing indicators, heterogeneity of variance, and clustering of practices, and we made checks on the robustness of the results to model specifications. All variables were divided by their standard deviations, thus regression coefficients show the increase in standard deviations of the outcome for one standard deviation increase in predictor variables. All statistical analyses were done with Stata software (version 9).

Achievement data for 2004–05, 2005–06, and 2006–07 were available for 8277 general practices in England. Practices were excluded from the study if they had fewer than 1000 patients in any 1 year (49 practices), one or more disease registers were missing (47 practices), the practice relocated to a more or less affluent area during the period (164 practices), complete exclusion data were not available (172 practices), or if the practice population changed in size

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by 25% or more (258 practices). Our main results are drawn from 7637 practices, providing care for more than 49 million patients.

### ***Limitations***

Data for exception reporting were not available for year 1; only practices with stable populations and complete data collection were included; only fairly unchanged indicators could be analysed (although levels of remuneration and achievement thresholds changed even for these indicators); analyses were at the practice not the patient level, and since some indicators provided incentives for the same activity for patients with different conditions, comorbidity will have led to some patients being counted twice; deprivation was summarised at the level of super-output areas, which might contain neighbourhoods with different levels of deprivation; and deprivation scores were assigned on the basis of practice location, hence some practices could have been misallocated with respect to deprivation quintile since some patients live outside of the immediate locality.

Results assume consistent and accurate recording of activity by practices, which were given a financial incentive to report high levels of achievement. Improvements might have been simulated by overreporting numerators—e.g., by claiming a missed target had been achieved—or by under-reporting denominators—e.g., by inappropriately excluding difficult patients or excluding them from disease registers.

## **Exclusion of Patients from QOF Targets by English GPs**

The analyses that we describe here relate to all 65 clinical indicators that were used in the second year of the QOF. Data were available for the prevalence of each of the 10 diseases listed in the program, since practices are required to maintain registers of patients with relevant diagnoses and the quality points earned for each indicator. For each practice, we calculated the rate of exception reporting, which was defined as the number of patients who were excluded for each indicator as a proportion of the number of patients who were eligible for the target. We constructed summary scores for each disease and each type of clinical activity using data for the relevant indicators. An overall score was constructed as an unweighted mean across all indicators.

Information on characteristics of medical practices was taken from the 2004 General Medical Statistics database, which is maintained by the Department of Health. These characteristics included the number of patients, the number of GPs per 10,000 patients, and the age, sex, and place of qualification (medical school within or outside the United Kingdom) of the physicians.

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We included an indicator for the 34% of practices that operate Personal Medical Services (PMS) contracts. These contracts are minor variants on the standard national contract and are negotiated at the local level to address local priorities. Virtually all PMS practices participated in QOF.

The QMAS database contains data from 8409 family practices in England. Practices were excluded from the study if they had fewer than 1000 patients (44 practices), if one or more disease registers were missing (107 practices), or if data regarding exception reporting were missing or incomplete (175 practices). Our main results are drawn from 8105 practices, which provide care for more than 49 million patients. Complete socioeconomic data were not available for 476 practices (5.9%), so these practices were excluded from the regression analyses. As a group, these practices did not differ significantly in terms of the rates of exception reporting.

We attributed socioeconomic characteristics to each practice on the basis of the electoral district in which the practice was located (average population, 5500), using data from the 2001 U.K. Census and the Index of Multiple Deprivation, a nationally recognised measure of socioeconomic deprivation.

### ***Statistical Analysis***

We analysed the effect of the characteristics of patients and medical practices on rates of exception reporting, using a multiple linear regression model reporting least-square means with robust estimates of error variance. Area indicator variables were included to allow for unobserved effects of local National Health Service policies. All explanatory variables were divided by their standard deviation, so reported coefficients show the increase in the standard deviation of rates of exception reporting for each 1-SD increase in predictor variables.

We also analysed the financial gain from exception reporting (i.e., the number of quality points earned by practices that could be attributed to exception reporting). Analyses were performed with the use of Stata software, version 9.

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## ***Using national datasets to examine changes in behaviour in general dental practice***

### **Changes in treatment patterns over before and after the contract reforms**

#### ***Methods***

Data covering the years from the start of April 1992 (any given year is considered to start at April through to March of the next e.g. "1993" refers to the year April 1992 to March 1993) to the end of March 2005 were obtained from an archive of the data from the Dental Practices Board. Next, data for the period covering the year ending March 2006 were obtained from the NHS Information Centre (IC) website (1). Finally, data on interventions for the years ending March 2007, 2008 and 2009 were also obtained from the NHS IC website (2,3,4).

The analyses were conducted using data from three originally separate datasets: the "Old contract" (April 1992 – March 2005); the "Transition contract" (April 2005 – March 2006) and; the "New contract" (April 2006 – March 2008) datasets. It is important to note that there were some important differences in the data collection between these datasets. The "Old contract" dataset reports the total numbers of interventions based on a sample of patients. In contrast, the "New contract" dataset collated data on the number of Courses of Treatment (CoT). One CoT is potentially made up of several interventions and therefore the "Old contract" and "New contract" datasets are not directly comparable. However, using data from an IC report on banding (which reported the number of interventions per 100 CoTs), it was possible to produce estimated values for the number of interventions for the "New contract" (5).

More recently, the IC have published similar data measuring the number of interventions per 100 CoTs using data routinely collected from dentists from April 2008 (covering the year ending March 2009) (6). For completeness, these data were used to produce estimates for the years ending 2007, 2008 and 2009 of the number of interventions based on the number of interventions per CoT (as detailed above).

In both the "Old" and "New contract" datasets, numbers of interventions were collated for a selection of procedures (which were identically defined in the two datasets). Whilst, the "Transition contract" dataset measured the activity for a similar selection of procedures, it is not clear whether these procedures are defined in



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the same way as in the “Old” and “New contract” datasets. Fortunately, the original dataset used to produce data for April 2005 – March 2006 actually contained the number of interventions for the years ending 2005 and 2006. Therefore, it was possible to approximate the change from 2005 to 2006 for each procedure (or an appropriately similar procedure, e.g. data for small x-ray claims were used to estimate a value for all radiographs). These approximations were thus used to estimate the likely number of interventions that would have been observed had the same data collection methods and definition of outcome been applied as had been up until March 2005.

1. <http://www.ic.nhs.uk/statistics-and-data-collections/primary-care/dentistry/nhs-dental-activity-and-workforce-report-england-31-march-2006>
2. <http://www.ic.nhs.uk/statistics-and-data-collections/primary-care/dentistry/nhs-dental-statistics-2006-07>
3. <http://www.ic.nhs.uk/statistics-and-data-collections/primary-care/dentistry/nhs-dental-statistics-2007-08-annual-report>
4. <http://www.ic.nhs.uk/statistics-and-data-collections/primary-care/dentistry/nhs-dental-statistics-for-england:-2008-09>
5. [http://www.ic.nhs.uk/webfiles/publications/dental/ba/Dental%20Treatment%20Band%20Analysis%2C%20England%202007\\_Preliminary%20Results.pdf](http://www.ic.nhs.uk/webfiles/publications/dental/ba/Dental%20Treatment%20Band%20Analysis%2C%20England%202007_Preliminary%20Results.pdf)
6. [http://www.ic.nhs.uk/webfiles/publications/Primary%20Care/Dentistry/clinical/dental0809q3/Provisional\\_Clinical\\_Dental\\_Report\\_England\\_and\\_Wales\\_Quarter\\_3\\_31\\_Dec\\_2008\\_Experimental\\_Statisticsv1.1.pdf](http://www.ic.nhs.uk/webfiles/publications/Primary%20Care/Dentistry/clinical/dental0809q3/Provisional_Clinical_Dental_Report_England_and_Wales_Quarter_3_31_Dec_2008_Experimental_Statisticsv1.1.pdf)

### ***Using national datasets to examine changes in behaviour in community pharmacy***

We obtained data on the number of MURs undertaken by every pharmacy in England for every month since the introduction of the contract, using a Freedom of Information request to the NHS Business Services Authority. We calculated monthly MUR numbers per pharmacy and grouped these by pharmacy type and graphed these over time.

## Appendix 6: Follow-up interviews

In total 59 participants were interviewed twice.

### *General Practice follow-up interviews (n=25)*

GPs	Total number	No. of years qualified* (mean plus range)	Gender (% F)	No. of practices	No. of PCTs
Partners	19	21.6 (7 to 33)	42.1	7	7
Salaried	5	16.4 (6 to 25)	80	5	4
TOTAL	24	20.4 (6 to 33)	50	9	7

\* Date of qualification taken from GP register and from the date of the primary medical qualification

### *Pharmacy follow-up interviews (n=13)*

Pharmacists	Total number	Years since qualified mean (plus range)	Gender (% F)	PCTs
Owners	8	21.4 (8 to 36)	12.5	5
Salaried, multiples	4	4.67 (2 to 9)	50	4
Salaried, independents	0	0	0	0
Locums	1	17	100	1
Practice	0	0	0	0
TOTAL	13	16.9	30.8	5

### *Dental follow-up interviews (n=15)*

	Total number	Years since qualified mean (plus range)	Gender (%F)	PCTs
Principals	12	27.6 (7 to 39)	9	4
Associates	3	22 (18 to 26)	100	1

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Nurses	0	0	0	0
Technicians	0	0	0	0
TOTAL	15	26.5 (7 to 39)	26.7	4

***PCT follow-up interviews (n=7)***

Total number	Gender (% F)	No. of PCTs
7	71.4	4

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## Appendix 7: Extended hours Directed Enhanced Service (DES)

### *Outline of options A and B (England)*

#### **The Government's proposals (Option A):**

- £158 million of funding recycled from the 2007/08 Access and Choice and Booking DESs (in England) would be reinvested in extended opening as a DES including £2.80 per patient per annum for providing extended access
- 58.5 QOF points (38.5 from the holistic and organisation domains, plus 20 points from the patient experience domain) would be reallocated to support access arrangements
- Extended opening would be for 30 minutes per week per 1000 registered patients - this would need to be in blocks of 1.5 hours after 6.30pm or for one hour prior to 8.00am or on Saturday morning and would depend on agreement between the practice and the PCT reflecting local patients' wishes. This would be provided through a nationally agreed DES, and practice participation would be voluntary
- Part of the funding available for access (35p per patient) would be dependent on the results of access questions contained in the QOF patient survey. This would include targets for 24/48 hours access and booking
- There would be 1.5% uplift in the contract value, although it was unclear how this would be allocated and what additional work on top of the DES practices would have to do to achieve this.

If the profession did not agree with Option A, the government has said that Option B would be imposed, details are as follows:

- Extended opening funded via £158m from the 2007/08 Access and Choice and Booking DESs but locally agreed arrangements
- There would be 135 points permanently removed from QOF including clinical areas such as influenza vaccination and management areas such as computer security. The overall impact would be a QOF with only 865 points instead of the current 1000.
- All lower QOF thresholds would be uniformly raised to 50%.

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- There would be no QOF achievement payment until the end of the first quarter
  - The funding, as described above, would be allocated to PCTs for them to agree local contracts for extended opening with any practices – including those newly set up private APMS practices. The risk was that only a proportion of the funding would end up with any general practices if allocated to PCTs.

[http://www.bma.org.uk/employmentandcontracts/independent\\_contractors/general\\_medical\\_services\\_contract/Extendedhours.jsp](http://www.bma.org.uk/employmentandcontracts/independent_contractors/general_medical_services_contract/Extendedhours.jsp)

#### Addendum

This document is an output from a research project that was commissioned by the Service Delivery and Organisation (SDO) programme whilst it was managed by the National Coordinating Centre for the Service Delivery and Organisation (NCCSDO) at the London School of Hygiene & Tropical Medicine. The NIHR SDO programme is now managed by the National Institute for Health Research Evaluations, Trials and Studies Coordinating Centre (NETSCC) based at the University of Southampton.

Although NETSCC, SDO has managed the project and conducted the editorial review of this document, we had no involvement in the commissioning, and therefore may not be able to comment on the background of this document. Should you have any queries please contact [sdo@southampton.ac.uk](mailto:sdo@southampton.ac.uk).