

# GP Prescribing Behaviour 2006

Report into the findings of a survey of General Practitioners in England

Prepared for
The National Audit Office



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## 1 Summary of Findings

- Very few consultations do not result in a prescription being issued.
- Where the GP works in a dispensing practice a lower number of consultations result in a prescription.
- Practice overspend is seen as a serious problem by some GPs but many are neutral on this issue and some disagree that it is a problem.
- The BNF is seen as the most useful, and the most objective, source of information by GPs, 77% ranked it as very useful and 84% ranked it as very or generally objective.
- 75% of respondents read 50% or less of the prescribing information they receive.
- 40% read 25% or less of it.
- Most (58%) say they are usually confident to appraise prescribing information.
- 3% of respondents say they rarely feel confident to appraise such information.
- The preferred format for prescribing information is via summary journals.
- The majority of GPs were using the EMIS clinical system.
- In general clinical systems do not display prescribing information only 7% of GPs said this was the case.
- GPs perceive the priority role of the Prescribing Adviser to be 'Providing support on commissioning in relation to medicine'.
- They feel provision support and advice on current issues in prescribing to be their lowest priority.
- The majority of GPs describe their relationship with their Prescribing Adviser to be 'reasonable'.
- 66% of GPs have a PCT prescribing incentive scheme in place.
- 38% do not know the value of the scheme to the practice.
- Of those that do know the value, the majority placed it in the £2,001 £4,000 bracket.
- Overall the incentive schemes do incentivise GPs to stay within budget some more so than others.
- 62% of GPs were working under the GMS contract.
- Of those working within this system 31% strongly agreed with the statement that QOF incentives had increased their prescribing.
- 30% of GPs agreed that the QOF had made their prescribing more efficient.
- Three quarters of the sample said that patient demand for drugs has increased over the past 3 years.
- 86% of GPs said their prescribing was benchmarked against others via systems such as PACT.



- The majority said that benchmarking data sometimes or often influenced them.
- Most respondents see pharmaceutical representatives.
- The majority see a rep between once a week and once every three months.
- 43% of the sample, the majority, said that Prescribing Advisers have much more influence than pharmaceutical companies.
- In terms of managing prescription originating in secondary care, the main view was that the prescription would be continued but that regular reviews would take place.
- This was particularly the case for some drugs e.g. methotrexate.
- Many of the respondents (37%) didn't know what impact Practice Based Commissioning would have on their drugs bill.
- Of those who did have a view, the majority said it would bring some savings.
- 58% of GPs said that they have taken steps to reduce drug wastage.
- In terms of ranking drugs according to price there was a varied level of success in doing this compared with the actual drug prices.
- In practice most prescriptions, for drugs in the sections considered, were written generically.
- Views regarding what one factor would improve prescribing decision making was very varied but objectivity of information was a strong theme emerging in this area



#### 2 Introduction

The National Audit Office conducts financial audits of government departments, agencies and some public bodies. Their remit is to report on the value gained for public money spent.

In England the annual drugs bill is currently approximately £11 billion representing approximately 14% of total National Health Service expenditure. The drugs bill and prescription volumes both continue to rise. Prescribing for cardiovascular conditions shows the greatest growth. In total 80% of all NHS branded drugs expenditure and 64% of the total drugs bill is accounted for by prescribing the in the primary care sector.

As part of it's current programme of reporting the NAO has committed to look at general practice to determine whether value for money is being obtained in this area.

The NAO wishes to include the perspective of the General Practitioner (GP) in its analysis. With that in mind the Office has commissioned Doctors.net.uk to survey a cross section of its membership to obtain GPs views on a range of topics in this area.

The survey was conducted using on-line methodology with a subset of the members of Doctors.net.uk who are General Practitioners and are practising in England. All members of Doctors.net.uk are GMC registered medical practitioners who access the Doctors.net.uk website through a user name and password. Doctors.net.uk have been contracted to conduct the fieldwork, collect all responses, analyse the information and prepare this report as a summary of the research findings.



## 3 Research Objectives & Methodology

## 3.1 Research Objectives

The objectives of the research project were to understand various elements of general practice and to assess their impact on aspects of GP behaviour. A number of areas were covered in the questionnaire. These can be broadly grouped as follows.

- Prescribing and budget
- Sources of prescribing information
- Clinical system information
- Prescribing Advisers
- Prescribing incentives
- GMS contract and Quality & Outcomes Framework
- Patient demands on prescribing
- Benchmarking
- Drug company representatives & their influence
- Management of secondary care prescribing
- Practice Based Commissioning
- Drug wastage management
- Perceived price ranking of drugs & prescribing habits in the following areas
  - o Proton pump inhibitors
  - o Statins
  - o ACE inhibitors & AII receptor agonists
  - o SSRI anti-depressants
  - o Other strong anti-depressants
  - o Non-Steroidal Anti-Inflammatory Drugs
- Improving prescribing decisions

The questionnaire, via which the data for the survey was collected, is provided in Appendix I.



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#### 4 Results

## 4.1 Sample Demographics

The fieldwork for this survey took place between 18th August 2006 and 7th September 2006. In total 1000 General Practitioners (GPs) participated in the survey.

In terms of regional representation the split of respondents across the regions was as follows.

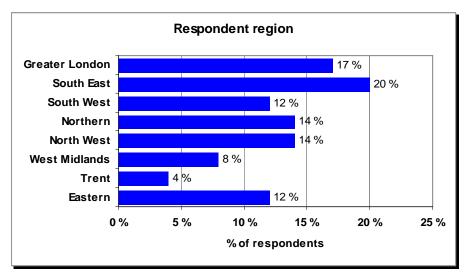


Figure 1: Split of sample across regions

All of the regions across England were well covered in terms of respondents participating in the survey. The South East region contributed the greatest number of respondents, representing 20% of the sample overall.

Looking at the year of qualification of respondents who participated in the research, the split breakdown of the sample is shown in Figure 2.



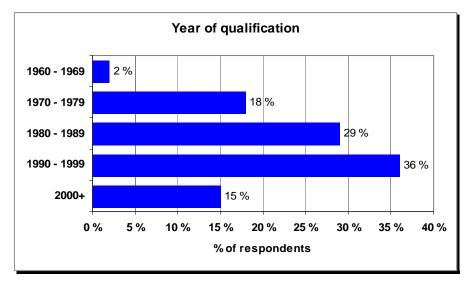


Figure 2: Breakdown of year of qualification.

The majority of respondents (36%) qualified during the 1990's. No respondents in the survey qualified prior to 1960.

In terms of respondent gender the split of the sample was 61% male and 39% female.

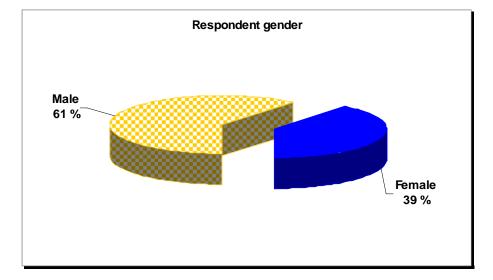


Figure 3: Breakdown of respondent gender

Considering the practice demographics, respondents completed information on the number of full time equivalent (FTE) partners working in the practice.



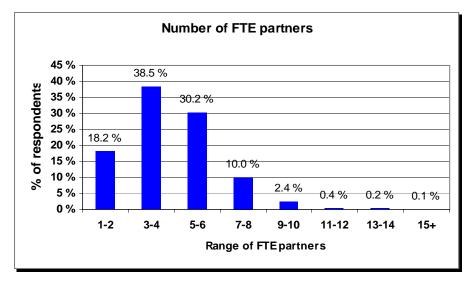


Figure 4: Number of Full Time Equivalent Partners

The number of FTE partners in the practice ranged from 0.5 to 20 FTE partners within the sample. On average the number of FTE partners in practices was 4.3.

There is little variation across the regions. However, the Greater London region does show a slightly lower average number of FTE partners in the practice. The highest average number is seen in the Northern region.

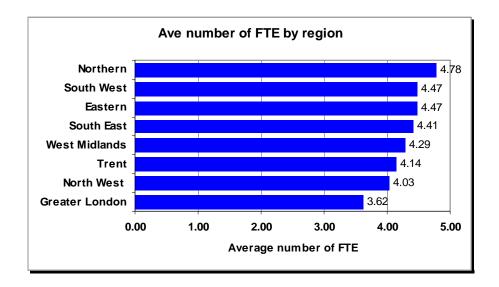


Figure 5: Average number of FTE partners split by English region



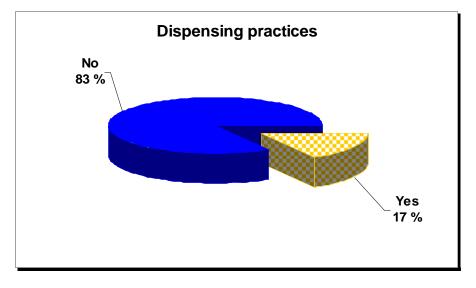


Figure 6: Split of practices between dispensing or not

The majority of respondents (83%) were not working in a dispensing practice. This does vary slightly when looked at on a regional basis. The percentage of respondents who work in dispensing practices is greatest in the South West region. In the South West 10% more respondents work in dispensing practices compared with the average (27% versus 17% overall).

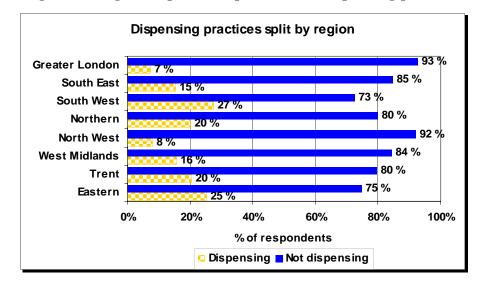


Figure 7: Regional split of respondents in dispensing practices

## 4.1.1 Prescribing and budget

The majority of consultations result in a prescription. In total 56% of GPs estimated that 50% or more of their consultations result in a prescription being issued.



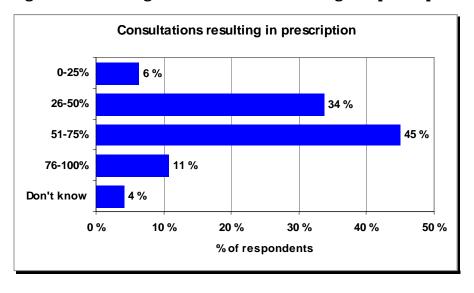


Figure 8: Percentage of consultations resulting in a prescription

Looking at this split according to the year of qualification the analysis shows that those GPs who qualified since the year 2000 estimated that less of their consultations resulted in a prescription being issued compared with those who qualified before this period. However, the proportion who 'don't know' was also higher in this group.

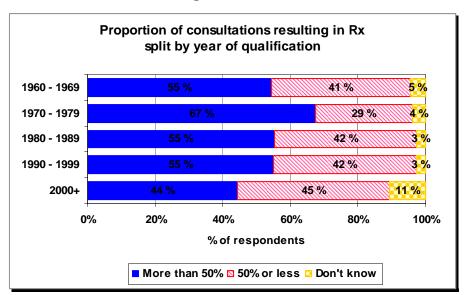


Figure 9 : Estimated % of consultations resulting in a prescription split by year of qualification

Those GPs who work in dispensing practices estimate that a lower percentage of consultations result in a prescription than those who do not work in a dispensing practice, 47% of GPs in dispensing practices estimate that more than 50% of consultations result in a prescription versus 58% estimating this level for those in non-dispensing situations.



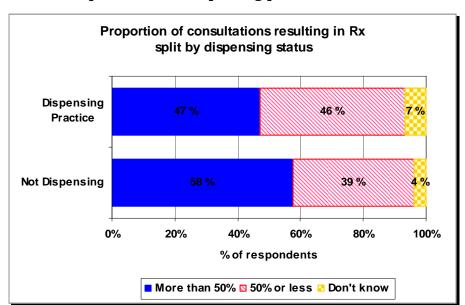


Figure 10: Estimate of % of consultations resulting in a prescription for those respondents in a dispensing practice versus not

Moving to the area of practice overspend almost half of GPs (47%) agreed with the statement that overspend is a serious problem, and 8% strongly agreed with the statement. This compares with 4% who strongly disagree. However, almost a third of GPs neither agreed nor disagreed with the statement.

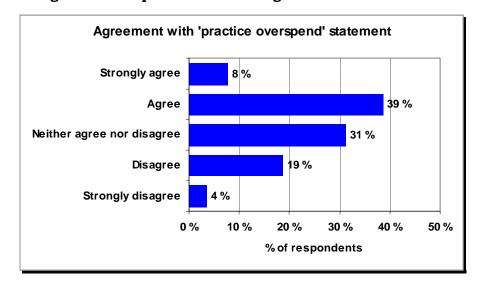


Figure 11: Respondents level of agreement with statement



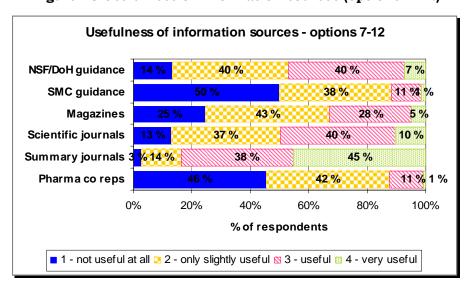
## 4.1.2 Sources of prescribing information

In this section respondents were asked to rank the usefulness of a range of information sources on a scale of 'not at all useful' (1) to 'very useful' (4). The detailed breakdown of each information source was as follows.

Usefulness of information sources - options 1-6 PCT local formulary 29 % 47% 12 % Hosp joint formulary 31 % 39 % 8 % prescribing adviser/MM team 44 % 19 % PCT newsletters 40 % **33** % 13 % **NICE** appraisals **39 %** 40 % 9 % NICE clinical guidelines 6% 52 % 17 % 20% 40% 60% 80% 100% % of respondents ■ 1 - not useful at all 🖰 2 - only slightly useful 🛭 3 - useful 🖺 4 - very useful

Figure 12: Usefulness of information sources (options 1-6)

Figure 13 Usefulness of information sources (options 7-12)





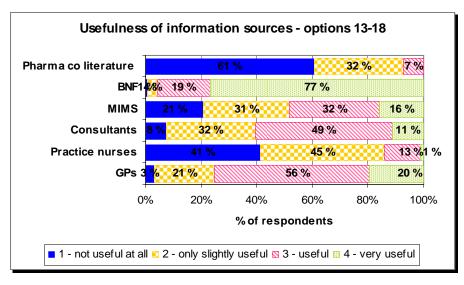
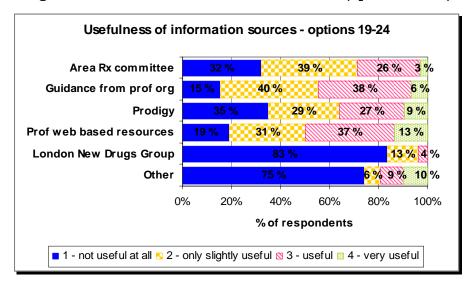


Figure 14: Usefulness of information sources (options 13-18)

Figure 15: Usefulness of information sources (options 19-24)



The detailed usefulness information can be converted into a score for each of the information sources cited. A score of 4 is the highest and 1 is the lowest. Thus giving a simpler method of comparing the value GPs attach to each of the sources. This information is shown in the following table.



Table 1: Ranking converted to a score for usefulness of each information source

Source of information	Average score of the source
BNF	3.72
Summary journals e.g. Drugs and Therapeutic Bulletin, Bandolier	3.26
GPs	2.92
NICE clinical guidelines for specific conditions	2.81
PCT prescribing adviser/medicines management team	2.73
Consultants	2.64
PCT local formulary	2.58
Newsletters from PCT prescribing adviser/medicines management team	2.51
Scientific journals e.g. The Lancet, BMJ	2.47
NICE guidance on specific technologies (appraisals)	2.44
Professional web based resources	2.44
MIMS	2.43
National Service Frameworks and other Department of Health guidance	2.40
Guidance from professional organisations	2.36
Joint formulary with local hospitals	2.32
Magazines e.g. Pulse, GP, Doctor	2.13
Prodigy	2.10
Area prescribing committee	1.99
Practice nurses	1.74
Pharmaceutical company representatives	1.67
SMC guidance	1.63
Pharmaceutical company literature (including advertisements)	1.47
London New Drugs Group	1.21

From this table it can be seen that GPs place the BNF as the most useful source of information about pharmaceutical prescribing, 77% of GPs ranked the BNF as a very useful information source. Summary journals ranked second in terms of usefulness, 45% of respondents rated these as very useful sources.

The lowest ranked sources were pharmaceutical company literature and London New Drugs Group. In both of these cases no one ranked these sources as 'very useful.

Respondents were also asked to rate the sources of information according to how objective they felt the sources were. The detail of their ratings for objectivity for each of the sources was as follows.



Figure 16: Objectivity of sources (options 1 - 6)

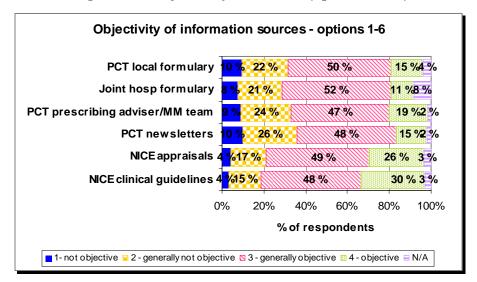
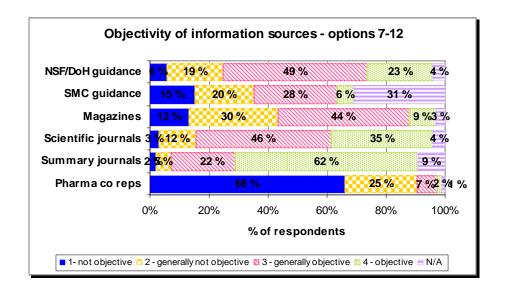


Figure 17: Objectivity of sources (options 7 - 12)





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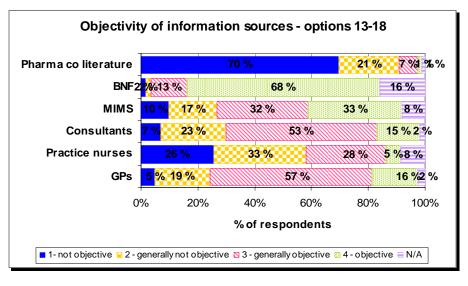
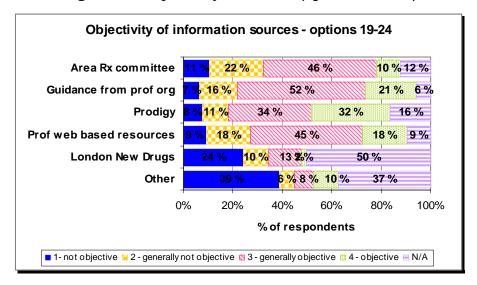


Figure 18: Objectivity of sources (options 13 - 18)

Figure 19: Objectivity of sources (options 19 - 24)



Scoring these sources in a similar manner to the usefulness criteria included above gives a ranking as follows.



Table 2: Ranking converted to a score for objectivity of each information source

Source of information	Objectivity score of that source
BNF	3.74
Summary journals e.g. Drugs and Therapeutic Bulletin, Bandolier	3.58
Scientific journals e.g. The Lancet, BMJ	3.17
NICE clinical guidelines for specific conditions	3.09
Prodigy	3.07
NICE guidance on specific technologies (appraisals)	3.01
MIMS	2.96
Guidance from professional organisations	2.92
National Service Frameworks and other Department of Health guidance	2.92
GPs	2.87
Professional web based resources	2.80
London New Drugs Group	2.80
Consultants	2.78
PCT prescribing adviser/medicines management team	2.76
PCT local formulary	2.73
Joint formulary with local hospitals	2.73
Newsletters from PCT prescribing adviser/medicines management team	2.68
Area prescribing committee	2.62
Magazines e.g. Pulse, GP, Doctor	2.51
SMC guidance	2.35
Practice nurses	2.15
Pharmaceutical company representatives	1.44
Pharmaceutical company literature (including advertisements)	1.39

Again the BNF came out top of the ranking in terms of objectivity, 68% of GPs rated this as on 'objective' source of information. Summary journals was the second most objective source selected by GPs, 62% rated these as 'objective'.

GPs ranked pharmaceutical company information and representatives lowest in terms of objectivity. Practice Nurses also gained a low score in terms of objectivity from GPs, only 8% of GPs rated Practice Nurses as 'objective'.

Respondents were then asked to estimate what proportion of the prescribing information they receive they have read, over the last year.



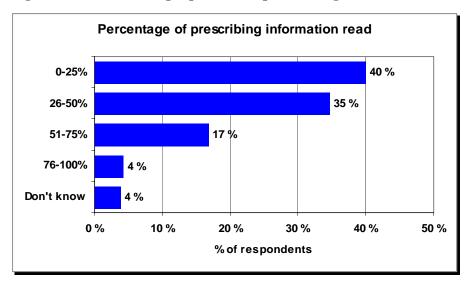
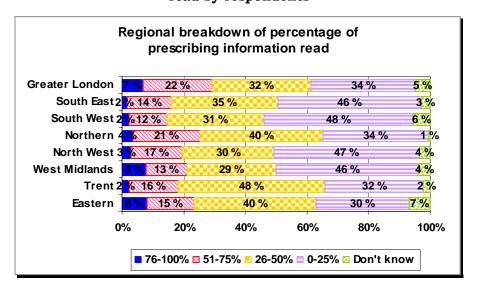


Figure 20: Estimated proportion of prescribing information read

75% of GPs estimated that they read 50% or less of the prescribing information they have received over the last year.

There is some variation across the regions.

Figure 21 : Regional split of estimates of amount of prescribing information read by respondents



It seems participants in the Greater London and Northern regions read more of the information they receive than those in other regions. A higher proportion of those respondents in the South West of England estimate they read 50% or less of the material they receive.



The majority of GPs said they usually feel confident to appraise the prescribing information they receive, 58% placed themselves in this category. 5% said they always felt confident and 33% said they sometimes feel confident in appraising this information.

Assessment of confidence in appraising prescribing information Isometimes I usually feel feel confident confident in in appraising appraising Rx Rx info info 33 % 58 % I rarely feel I always feel None of the confident in confident in above appraising Rx appraising Rx 1 % info info 3 % 5 %

Figure 22: Rating of personal skill in appraising prescribing information

There is some variation in the level of confidence within the sample when looked at according to year of qualification.

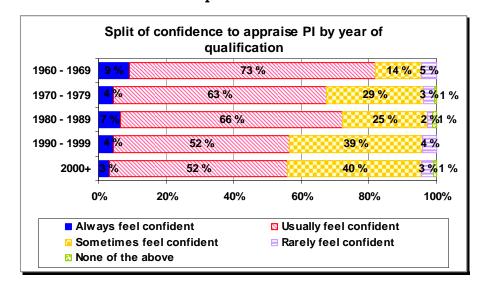


Figure 23: Confidence in appraising prescribing information according to year of qualification



Those GPs who qualified earlier displayed a greater level of confidence in appraising this information, 40% of respondents in the group who qualified post 2000 said they 'sometimes' feel confident in appraising this information. Comparing this with those who qualified in the 1960's – only 14% place themselves in this category with the majority resting in the 'more confident' groups.

Split of confidence to appraise PI by respondent gender 48 % **45** % 4 9/8/6 **Female 65** % **25** % Male <mark>3 %</mark>1 % 0% 20% 40% 60% 80% 100% Always feel confident ■ Usually feel confident Sometimes feel confident Rarely feel confident None of the above
 ■
 None of the above
 N

Figure 24: Confidence to appraise prescribing information according to respondent gender

The results also show that male participants were more confident in appraising prescribing information than the female ones.

Respondents were also asked to state the format they preferred prescribing information to be delivered in.

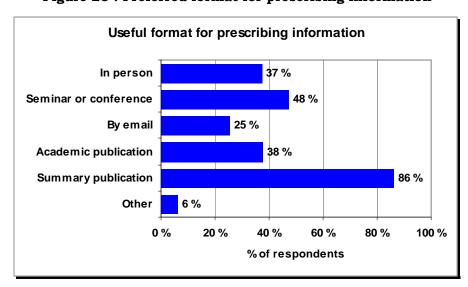


Figure 25: Preferred format for prescribing information



Summary publication was the main option selected by GPs. The second most favoured option was seminar or conference.

A small proportion (6%) of GPs selected other delivery options. These include methods such as

- BNF
- Colleagues
- Web based routes e.g. Doctors.net.uk
- Magazines e.g. Pulse, Doctor
- Newsletters

#### 4.1.3 Clinical system information

The take up of clinical systems across the sample was as follows.

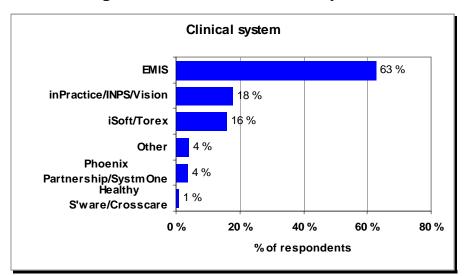


Figure 26: Breakdown of clinical systems

The EMIS system was most widely used by the sample with 63% of GPs indicating this was the system used in their practice. INPS/Vision and iSoft/Torex systems made up the majority of the other systems in use in England. A small proportion of respondents used a system not listed in the questionnaire, generally the specified alternatives were the Microtest or SEETEC systems.

In terms of the use of these systems to display advertisements the majority of respondents (90%) said that their system did not display adverts.



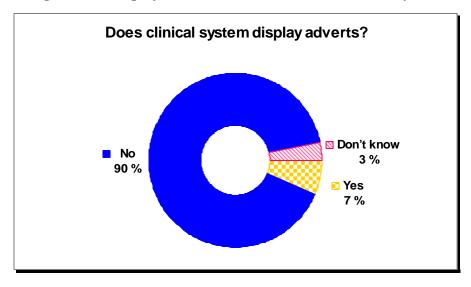


Figure 27: Display of advertisements in the clinical system

#### 4.1.4 Prescribing Advisers

The next section of the questionnaire looked at the role of the Prescribing Adviser and the relationship respondents have with Prescribing Advisers.

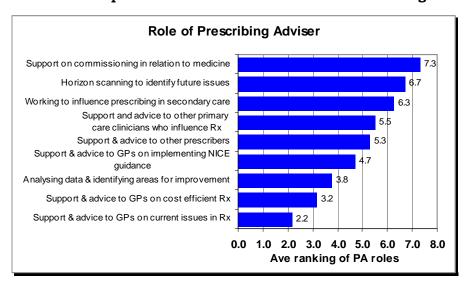


Figure 28: What do respondents consider the role of the Prescribing Adviser to be

Respondents were asked to rank potential Prescribing Adviser roles according to the priority they felt was correct for a Prescribing Adviser.



The top activity ranked by GPs was that the role should be to provide support on commissioning in relation to medicine. A role in scanning the horizon for future prescribing issues was the second priority for GPs.

The lowest priority was for the Prescribing Adviser to have a role in supporting and advising GPs on current prescribing issues.

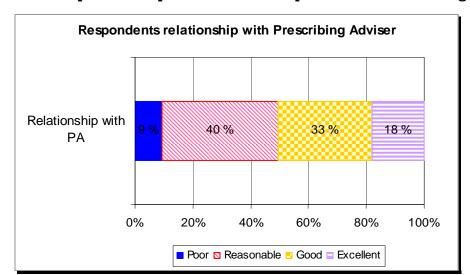


Figure 29: Description of respondent relationships with their Prescribing Adviser

Very few (9%) participants described their relationship with their Prescribing Adviser as poor. However, only 18% described it as excellent. The majority of GPs (40%) described the relationship as 'reasonable'.

## 4.1.5 Prescribing incentives

Turning to the topic of prescribing incentive schemes

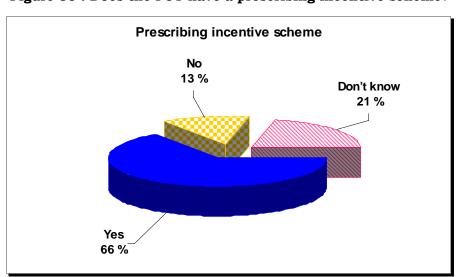


Figure 30: Does the PCT have a prescribing incentive scheme?



Two thirds of GPs said that their PCT has a prescribing incentive scheme in place. A fifth or respondents (21%) didn't know whether there was an incentive scheme in place for their PCT or not.

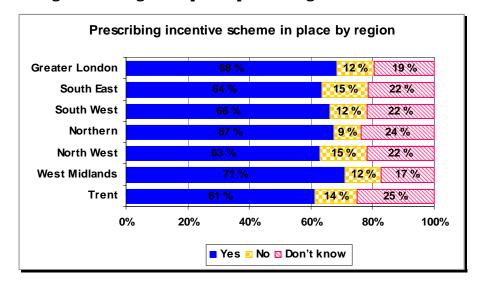


Figure 31: Regional split of prescribing incentive schemes

The implementation of incentive schemes is reasonably uniform across England, although implementation seems to be slightly more prevalent in the West Midlands region where 71% of participants said there was a scheme in place.

The highest level of uncertainty regarding scheme implementation was seen in the Trent region where 25% of GPs didn't know whether there was a scheme in place or not.

In terms of the value of prescribing incentive schemes to GPs the greatest proportion (38%) did not know the value of the scheme to their practice.



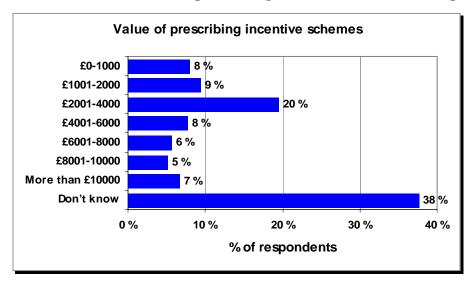


Figure 32: How much is the PCT prescribing incentive scheme to the practice?

Of those who do know the value (62%) the majority (20% of the total) said that the scheme value was in the £2,001 - £4,000 bracket.

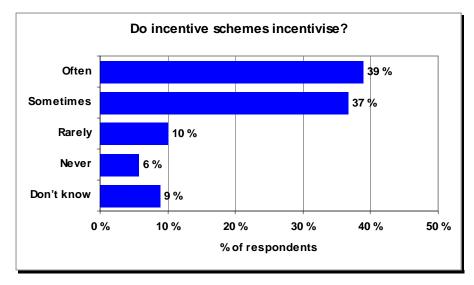


Figure 33: GPs views on how much schemes incentivise

The majority of respondents felt that the schemes do incentivise them to stay within the prescribing budget. Only 6% felt that such schemes never provided an incentive to restrict prescribing to ensure budgets are met.

#### 4.1.6 GMS contract and Quality & Outcomes Framework

Respondents were asked whether their practice was part of the GMS contract or not.



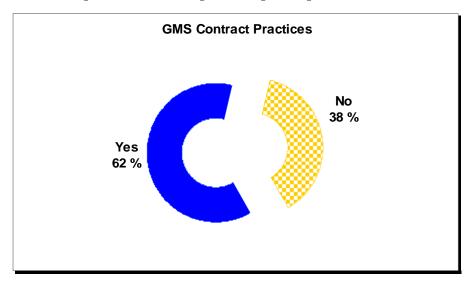


Figure 34: Respondents whose practice participates in the GMS Contract.

The majority of GPs (62%) were in practices which come under the GMS Contract.

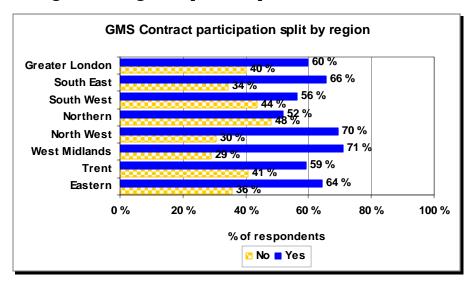


Figure 35: Regional split of respondents in GMS Practice

The lowest level of participants in a GMS practice was seen in the Northern region where only 52% work under the GMS contract. The greatest level was seen in the West Midlands region where 71% were working within the contract.

Respondents were asked the extent to which they agreed with statements about the Quality and Outcomes Framework element of the GMS Contract.



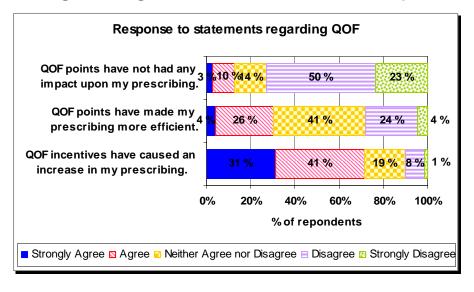


Figure 36: Agreement with statements about the QOF

Converting these to a scoring methodology, where GPs who said they strongly agree scored 5 and those who said they strongly disagreed scored 1, shows the ranking of these statements.

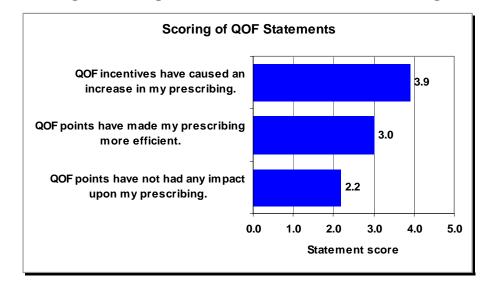


Figure 37: Importance of statements based on ranking

The ranking of the statements in this way demonstrates that GPs do feel that the Quality and Outcomes Framework has impacted to increase their prescribing. GPs are neutral regarding whether the Framework has made their prescribing more efficient.



## 4.1.7 Patient demands on prescribing

Turning to whether the overall demand for drugs from patients has increased over the past 3 years GPs clearly feel that this is the case.

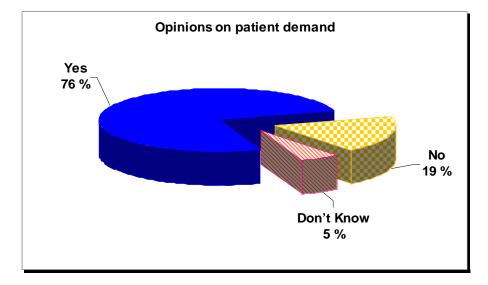


Figure 38: Has patient demand for drugs increased?

Over three quarters of the sample feel that patient demand for drugs has increased over the past 3 years.

In general this view is reflected across the regions. However is slightly more prominent in the Eastern region (79%) and the Trent region (82%).

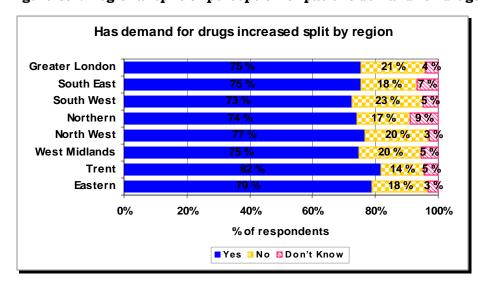


Figure 39: Regional split of perception of patient demand for drugs



#### 4.1.8 Benchmarking

Moving onto the area of benchmarking of dispensing. Respondents were asked if their prescribing behaviour was benchmarked against other prescribers.

Is respondents prescribing benchmarked?

Yes
86 %

Don't know
10 %

No
4 %

Figure 40: Are respondents benchmarked against other prescribers?

The majority (86%) of GPs said that their prescribing is benchmarked against others via means such as PACT data.

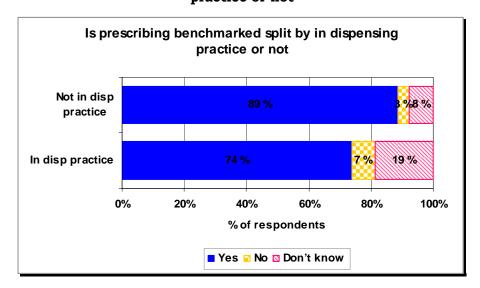


Figure 41: Split of benchmarking by whether respondent is in dispensing practice or not



Those GPs who are in a dispensing practice show a different profile of response regarding whether they were benchmarked or not. A lower percentage (74%) said that they were benchmarked. However 7% said they were not benchmarked and 19% did not know whether they were benchmarked or not. This compares with a figure of 8% who did not know the benchmarking situation where the respondent was not working in a dispensing practice.

Benchmarking clearly does have an effect on respondents prescribing behaviour. The majority of respondents (60%) said that benchmarking data sometimes influenced their prescribing decisions, 10% of respondents said it often influenced them.

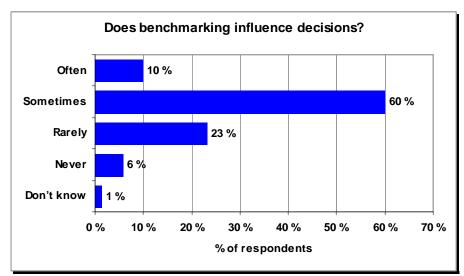


Figure 42: Impact of benchmarking data

## 4.1.9 Drug company representatives & their influence

Respondents were asked about the frequency with which they see drug company representatives, also about the relative influence of representatives versus that of Prescribing Advisers.



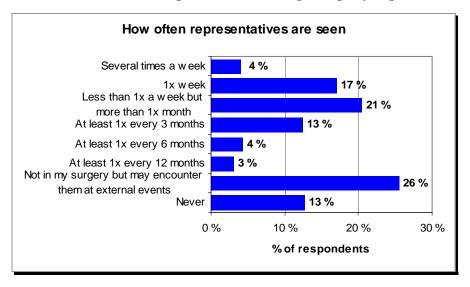


Figure 43: How often do respondents see drug company representatives?

Overall 87% of GPs see representative at some point in time. 26% of GPs only see representatives on a casual basis for example at external events. Considering the group as a whole, the majority fall into the bracket of seeing representatives between once a week and once every three months.

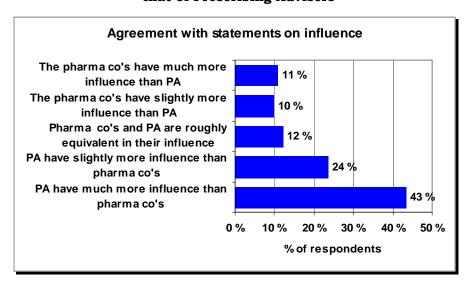


Figure 44: Influence of drug company representatives compared with that of Prescribing Advisers

In terms of relative influence 43% of GPs selected the statement whereby Prescribing Advisers have much more influence than pharmaceutical companies. However 21% of respondents selected statements to reflect that they felt that pharmaceutical companies have much more or slightly more influence than Prescribing Advisers.



#### 4.1.10 Secondary care prescribing

Respondents indicated a wide range of arrangements in place for managing hospital initiated prescriptions. These included -

- Review of prescriptions by a GP before issue
- Checking with the PCT/Prescribing Adviser before issuing
- No arrangement in place continue just as instructed/comply with the request
- Traffic light scheme for shared care

The majority of GPs said they would continue with the product prescribed, mostly with a review in place. Some drugs are more closely monitored if required, an example often cited for this was methotrexate.

#### 4.1.11 Practice Based Commissioning

Turning to the subject of Practice Based Commissioning (PBC). Respondents were asked whether they thought it would encourage their practice to make savings on the drugs bill.

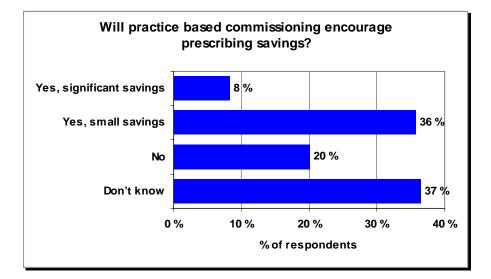


Figure 45: Impact of Practice Based Commissioning

The survey shows that many GPs (37%) are not aware of the impact that PBC may have on their practice.

Of those who could express an opinion the majority (36% of all respondents) said that they thought PBC would encourage small savings in their drugs bill.



### 4.1.12 Drug wastage management

Respondents were asked whether they have taken any steps to reduce drug wastage generated by

- Unnecessary repeat prescribing & dispensing
- Patient non-concordance
- The impact of non-standard packs

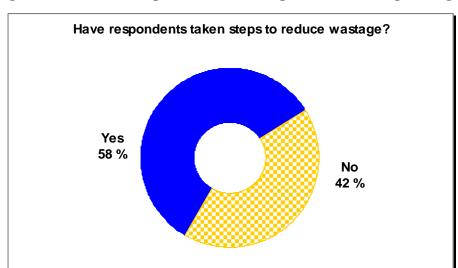


Figure 46: Has the respondent taken steps to reduce drug wastage?

The majority of GPs (58%) said that they had actively taken steps to reduce such wastage. Methods use to control wastage were -

- Moving to 28 day, or multiples of, prescribing
- Issue smaller scripts especially initially
- Conducting regular medication reviews
- Monitoring patients closely
- Audits
- Liaising with/employing Pharmacists to review prescribing
- Limiting the options for repeat requests
- Using clinical system to highlight pack sizes/generate over use warnings
- Use the whole team to keep track of it



Regular review of medication usage was the one factor mentioned most frequently as their method of controlling drug wastage.

### 4.1.13 Perceived price ranking of drugs & prescribing habits

The penultimate section of the questionnaire looked at the perceived pricing of drugs from selected sections of the BNF. The intention was to understand how clearly the pricing of drugs is communicated to GP.

For each drug group a 'typical' months course was displayed to the doctor. They were asked to rank the products from most expensive to least expensive, where most expensive was ranked 1.

The scores for each product have been converted to an average to enable the products to be ranked. For comparison purposes the actual price of the drugs, as listed in BNF 51 (March 2006), has been included.

The drug categories analysed were.

- Proton pump inhibitors (PPIs)
- Statins
- ACE inhibitors & AII receptor agonists
- SSRI anti-depressants
- Other strong anti-depressants
- Non-Steroidal Anti-Inflammatory Drugs (NSAIDs)



### 4.1.13.1 Proton pump inhibitors

Figure 47: Ranking of PPI products by respondents

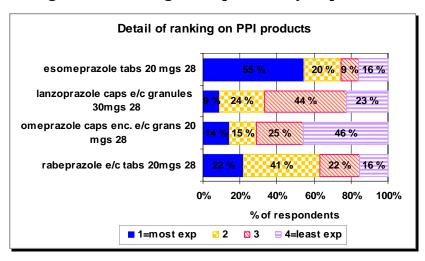


Figure 48: Average scores for PPI products

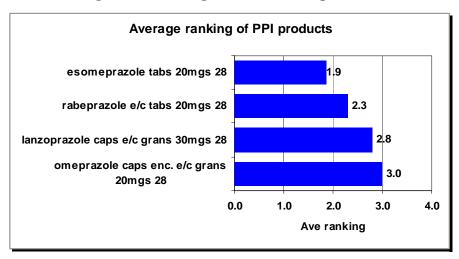
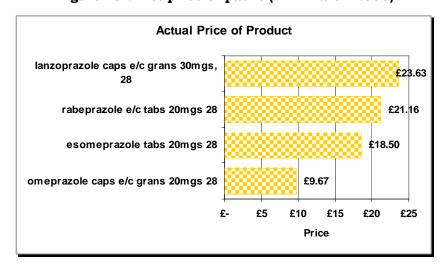


Figure 49: List price of packs (BNF March 2006)





Overall 55% of GPs rated esomeprazole as the most expensive of the products listed. With 75% placing this formulation first or second, esomeprazole ranked as the most expensive product on average.

In fact the most expensive product in the list was the lansoprazole item, esomeprazole was the second cheapest item with only to omeprazole cheaper. The sample widely identified omeprazole as the cheapest in this section.

In terms of the product prescribed most often in practice, respondent preference was -

- 1. omeprazole
- 2. lansoprazole
- 3. rabeprazole
- 4. esomeprazole

Two thirds of respondents said they prescribe these products generically. Only 3 said they would prescribe by brand. A large proportion did not state their writing preference.



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#### 4.1.13.2 Statins

Figure 50: Ranking of Statin products by respondents

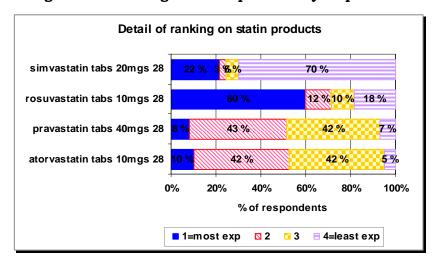


Figure 51: Average scores for Statin products

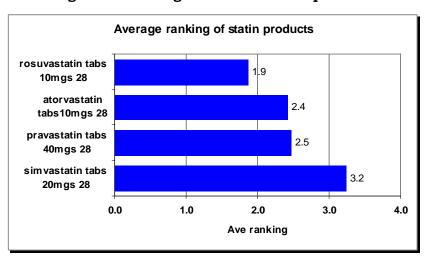
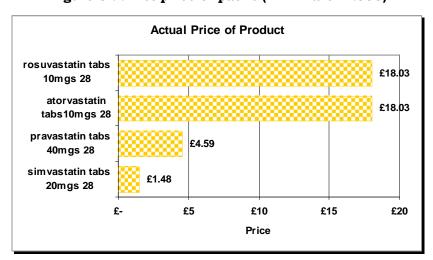


Figure 52: List price of packs (BNF March 2006)





Decisions were quite polarised for the statin products. 70% of respondents said that simvastatin was the least expensive product of those listed. 60% of respondents said that rosuvastatin was the most expensive with relatively equal views on atorvastatin and pravastatin.

In fact atorvastatin and rosuvastatin are priced the same. However 72% of respondents ranked rosuvastatin 1 or 2 versus only 52% of respondents ranking atorvastatin 1 or 2.

Pravastatin and atorvastatin ranked virtually the same in terms of average score whereas in fact the pravastatin pack is considerably cheaper than atorvastatin.

In terms of prescribing preference the order was

- 1. simvastatin
- 2. atorvastatin
- 3. = pravastatin/rosuvastatin

In specifying their most prescribed product the number of respondents who opted for simvastatin was over 8 times as many as those opting for atorvastatin.

Again the majority of respondents said they would write generically. A number specified brand writing for simvastatin where they would write a prescription for Simvador specifically.



### 4.1.13.3 ACE Inhibitors & AII Receptor Agonists

Figure 53: Ranking of ACE/AII products by respondents

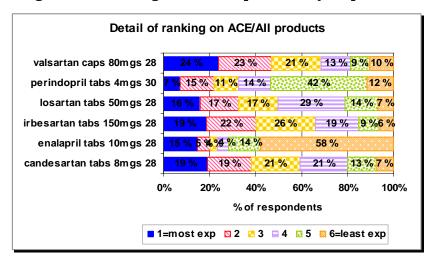


Figure 54: Average scores for ACE/AII products

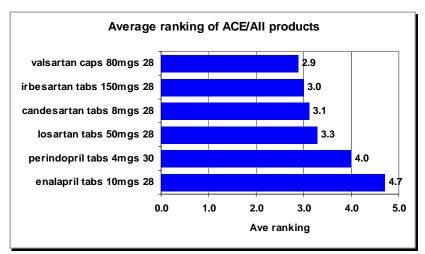
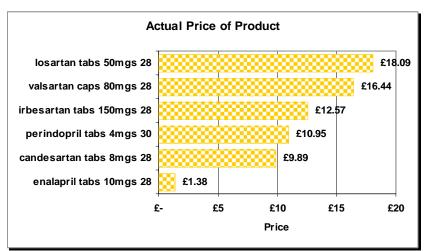


Figure 55: List price of packs (BNF March 2006)





Price rankings were much closer on the ACE inhibitor/AII receptor agonist section although enalapril is clearly ranked as the cheapest product within the set, 58% of respondents ranked it as least expensive.

The average score showed that respondents could not easily decide between valsartan, irbesartan and candesartan in terms of price ranking. Losartan is also close to this group also but overall on the rankings came out as the 4<sup>th</sup> most expensive product. In fact it the most expensive of the group. Candesartan was ranked third by respondents but is actually the second cheapest and almost half the price of losartan.

Of the products listed the most commonly prescribed product was perindopril. However the main product prescribed by the sample in this area was not one of the selected products it was ramipril. The order of preference was -

- 1. ramipril
- 2. perindopril
- 3. enalapril

It seems that ACE inhibitors are the products of choice with fewer respondents commonly opting for the AII receptor agonists. Of these candesartan seems to be the preferred option but there is little difference between those choosing candesartan and losartan.

Again the majority of respondents write prescriptions in this are generically.



### 4.1.13.4 SSRI anti-depressants

Figure 56: Ranking of SSRI products by respondents

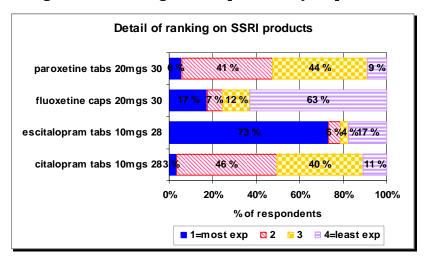


Figure 57: Average scores for SSRI products

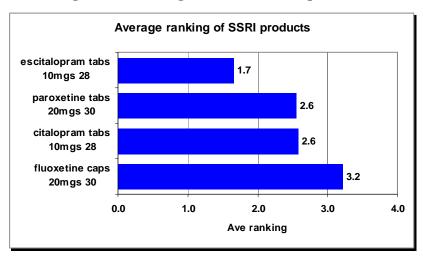
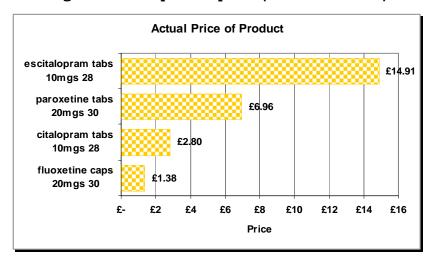


Figure 58: List price of packs (BNF March 2006)





Respondents seemed to have a clearer idea of the price differential in the SSRI area, the scoring of the products reflects their actual pricing.

The order of choice for daily use of these products was -

- 1. fluoxetine
- 2. citalopram
- 3. escitalopram
- 4. paroxetine

The main selection was between citalopram and fluoxetine, the other two products had far fewer respondents saying this was the anti-depressant they prescribe most often in practice.

Again two thirds of respondents said that they would prescribe generically. Only 8 said they would prescribe by brand, the rest did not state a preference.



### 4.1.13.5 Other strong anti-depressants

Figure 59: Ranking of other Anti-depressants products by respondents

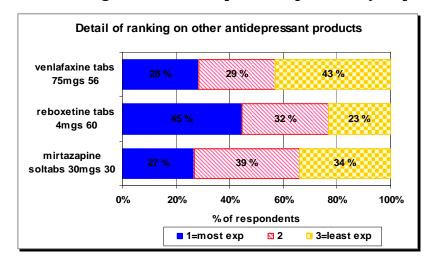


Figure 60: Average scores for Anti-depressants products

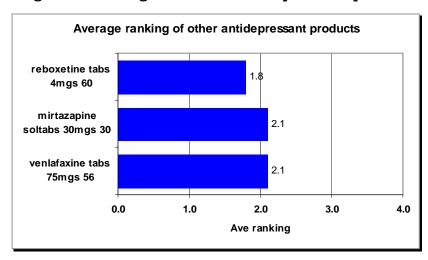
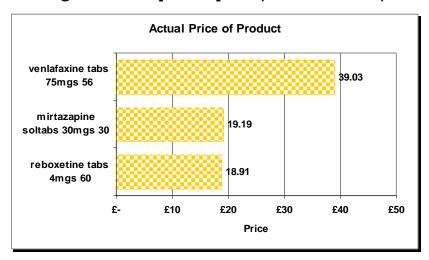


Figure 61: List price of packs (BNF March 2006)





Even though there is a clear difference in the actual price of these products the GPs in the sample could not really differentiate between the three. Reboxetine was ranked as most expensive whereas in reality it is marginally cheaper than the other two products.

In terms of everyday usage the ranking of products in this section was -

- 1. mirtazapine
- 2. venlafaxine
- 3. reboxetine

Very few respondents use reboxetine – this may be a reason why they have little knowledge about its cost.

Approximately 50% of respondents said they write generically in this area.



### 4.1.13.6 Non-Steroidal Anti- Inflammatory Drugs

Figure 62: Ranking of NSAIDs products by respondents

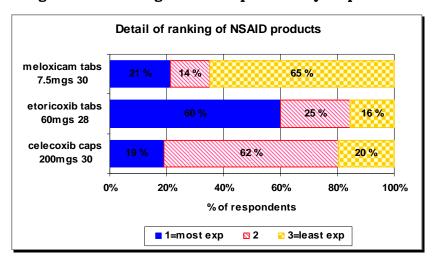


Figure 63: Average scores for NSAID products

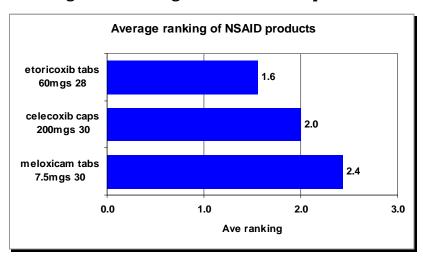
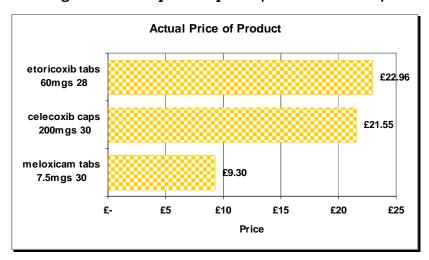


Figure 64: List price of packs (BNF March 2006)





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The perception of price ranking for the specified NSAID product reflects the actual pricing in this area where etoricoxib is the most expensive product and meloxicam is the cheapest.

Of the listed products meloxicam was the product that GPs prescribe most frequently. However, other products, not in the list, were more popular. The most commonly prescribed product in this area was ibuprofen followed by diclofenac.

The majority of GPs said they write generically in this area.

### 4.1.14 Improving prescribing decisions

The final question in the survey asked what one factor would help GPs in their prescribing decision making. With 1000 respondents inevitably the answers were varied. However, some key suggestions did emerge in the following areas.

- Impartial/independent information
- Evidence based information
- Availability of Drugs & Therapeutics Bulletin for free
- Stricter formularies
- Clearer guidelines
- Effective products
- Data on cost/cost effectiveness
- Information tied into/generated by the computer
- Regular flows of information
- Generally more information available

There were overall themes emerging from GPs around information being simple and clear. The main feeling was that there should be access to objective and impartial. More time to read the information was also often mentioned by the group.

☐ Strongly agree

☐ Strongly disagree

□ Disagree

□ Agree□ Neither agree nor disagree



5 Appendix I : Questionnaire & Definition of Regions
3 Appendix 1 · Quescionnaire & Delinition of Regions
5.1 Questionnaire
Year of qualification
(Check one)
□ pre 1960
□ 1960 - 1969
□ 1970 - 1979 □ 1980 - 1989
□ 1980 - 1989 □ 1990 - 1999
□ 2000+
How many FTE partners are there in your practice?
(Type text)
Is the practice that you work in a dispensing practice?
Is the practice that you work in a dispensing practice? (Check one)
(Check one)  □ Yes
(Check one)
(Check one)  □ Yes
(Check one)  ☐ Yes ☐ No  What proportion of your consultations over the last year would you estimate
(Check one)  ☐ Yes ☐ No  What proportion of your consultations over the last year would you estimate resulted in a pharmaceutical prescription? (Check one) ☐ Don't know
(Check one)  ☐ Yes ☐ No  What proportion of your consultations over the last year would you estimate resulted in a pharmaceutical prescription? (Check one) ☐ Don't know ☐ 0-25%
(Check one)  ☐ Yes ☐ No  What proportion of your consultations over the last year would you estimate resulted in a pharmaceutical prescription? (Check one) ☐ Don't know
(Check one)  ☐ Yes ☐ No  What proportion of your consultations over the last year would you estimate resulted in a pharmaceutical prescription?  (Check one) ☐ Don't know ☐ 0-25% ☐ 26-50%
(Check one)  Yes  No  What proportion of your consultations over the last year would you estimate resulted in a pharmaceutical prescription? (Check one)  Don't know  0-25%  26-50%  51-75%  76-100%  To what extent do you agree with the following statement?
(Check one)  Yes No  What proportion of your consultations over the last year would you estimate resulted in a pharmaceutical prescription? (Check one) Don't know O-25% 26-50% 51-75% 76-100%



## There are many sources of information about pharmaceutical prescribing. Generally, how useful do you find the sources listed below?

(Check one alternative per row)

	1 - not useft at all	ul 2 - only slightly useful	3 - useful	4 - very useful
PCT local formulary				
Joint formulary with local hospitals				
PCT prescribing adviser/medicines				
management team				
Newsletters from PCT prescribing				
adviser/medicines management team				
NICE guidance on specific technologies				
(appraisals)				
NICE clinical guidelines for specific conditions				
National Service Frameworks and other				
Department of Health guidance				
SMC guidance				
Magazines e.g. Pulse, GP, Doctor				
Scientific journals e.g. The Lancet, BMJ				
Summary journals e.g. Drugs and				
Therapeutic Bulletin, Bandolier				
Pharmaceutical company representatives				
Pharmaceutical company literature				
(including advertisements)				
BNF				
MIMS				
Consultants				
Practice nurses				
GPs				
Area prescribing committee				
Guidance from professional organisations				
Prodigy				
Professional web based resources				
London New Drugs Group				
Other - please specify				



### There are many sources of information about pharmaceutical prescribing. Generally, how objective do you fine the sources listed below?

(Check one alternative per row)

(Check one alternative per row)					
	1 - not objective	2 - generally not objective	3 - generally objective	4 - objective	N/A
PCT local formulary					
Joint formulary with local hospitals					
PCT prescribing adviser/medicines management team					
Newsletters from PCT prescribing					
adviser/medicines management					
team					
NICE guidance on specific					
technologies (appraisals)					
NICE clinical guidelines for specific					
conditions					
National Service Frameworks and					
other Department of Health					
guidance					
SMC guidance					
Magazines e.g. Pulse, GP, Doctor					
Scientific journals e.g. The Lancet, BMJ					
Summary journals e.g. Drugs and		П	П		П
Therapeutic Bulletin, Bandolier	_	_	_	_	_
Pharmaceutical company			П	П	
representatives					
Pharmaceutical company literature			П	П	
(including advertisements)					
BNF					
MIMS					
Consultants					
Practice nurses					
GPs					
Area prescribing committee					
Guidance from professional					
organisations	_	_	_	_	_
Prodigy					
Professional web based resources	П	<u> </u>	П	П	П
London New Drugs Group	П	П	П	П	П
Other - please specify	П	П	П	П	П
o their preade opening					

### What proportion of all the prescribing information that you have received over the last year do you estimate that you have read?

(C)	heck one)
	Don't know
	0-25%
	26-50%
	51-75%
	76-100%



# Thinking about your personal skills in appraising prescribing information, there may be ways you would like to improve. Please tick the statement that best describes your situation

(Cł	neck one)
	I always feel confident in appraising prescribing information I usually feel confident in appraising prescribing information I sometimes feel confident in appraising prescribing information I rarely feel confident in appraising prescribing information None of the above (please explain)
In	what form do you find it useful to receive information about prescribing?
(Cł	neck all that apply)
	In person At a seminar or conference By email In an academic publication featuring trial results such as Lancet or New England Journal of Medicine
	In a summary publication such as Drugs and Therapeutic Bulletin or Bandolier Other (please specify)
Wł	nich clinical software do you use?
(Cł	neck all that apply)
	EMIS inPractice / INPS/ Vision iSoft / Torex Healthy Software / Crosscare The Phoenix Partnership / SystmOne Other, please specify
inf	es the prescribing software you use display advertisements or promotional formation from pharmaceutical or devise manufacturers?  neck one)
•	Yes
	No
	Don't know
Ple	nat do you consider the role of a prescribing advisor to be? ease rank the following activities in order of priority with 1 being the highest d 9 being the lowest.
	Providing support and advice to GPs on current issues in prescribing Providing support and advice to GPs on cost efficient prescribing Providing support and advice to GPs on implementing NICE guidance Analysing data and identifying areas for improvement Providing support and advice to other prescribers Providing support and advice to other primary care clinicians who influence prescribing Horizon scanning to identify future issues
	Working to influence prescribing in secondary care Providing support on commissioning in relation to medicine



How would you describe your relationship with your prescribing adviser?
(Check one)
□ Poor
□ Reasonable
Good
□ Excellent
Does your PCT have a prescribing incentive scheme?
(Check one)
□ Yes
□ Don't know
How much is your PCT's prescribing incentive scheme worth to your practice each year?
Please note that this does not refer to QOF medicines management points.
(Check one)
□ £0-1000
□ £1001-2000
© £2001-4000
© £4001-6000
□ £6001-8000 □ £8001-10000
☐ More than £10000
□ Don't know
Does your PCT's prescribing incentive scheme incentivise you to stay within budget?
(Check one)
□ Often
□ Sometimes
□ Rarely □ Never
□ Don't know
Is your practice part of the GMS contract?
(Check one)
□ Yes
$\square$ No



### Please give your response to the statements below about the GMS contract QOF points and your prescribing decisions.

(Check one alternative per row)

	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
QOF incentives have caused an					
increase in my prescribing.					
QOF points have made my					
prescribing more efficient.					
QOF points have not had any					
impact upon my prescribing.					

### past three

Do you consider patient demands for drugs to have increased over the past years?
(Check one)
☐ Yes ☐ No ☐ Don't Know
Is your practice's prescribing behaviour benchmarked against others through means such as PACT data?
(Check one)
<ul><li>☐ Yes</li><li>☐ No</li><li>☐ Don't know</li></ul>
Does such benchmarking data influence your prescribing decisions?
(Check one)
□ Often □ Sometimes □ Rarely □ Never □ Don't know
How often do you see drug company reps?
(Check one)

C1	neck one)
	Never
	Not in my surgery but may encounter them at external events
	At least once every 12 months
	At least once every 6 months
	At least once every 3 months
	Less than once a week but more than once a month
	Once a week
	Several times a week



### Please tick the statement below that you most agree with about the influences upon GP prescribing behaviour in general.

(C	neck one)
	The pharmaceutical companies have much more influence than prescribing advisers The pharmaceutical companies have slightly more influence than prescribing advisers
	Pharmaceutical companies and prescribing advisers are roughly equivalent in their influence
	Prescribing advisers have slightly more influence than pharmaceutical companies Prescribing advisers have much more influence than pharmaceutical companies
in	nat arrangements do you have in place for managing prescriptions that originate hospital but are dispensed in the primary sector? ${ m cpe\ text})$
m	you believe that practice based commissioning will encourage your practice to ake savings in your drugs bill?
m	Ake savings in your drugs bill?  neck one)  Yes, significant savings Yes, small savings
(C	ake savings in your drugs bill?  neck one)  Yes, significant savings
m: (C	Ake savings in your drugs bill?  neck one)  Yes, significant savings Yes, small savings Don't know
ma (C	Ake savings in your drugs bill?  neck one)  Yes, significant savings Yes, small savings Don't know No  Ave you taken any steps to reduce wastage generated by unnecessary repeat escribing and dispensing, patient non-concordance and non-standardised pack test in your area?  neck one)
ma (C	Ake savings in your drugs bill?  neck one)  Yes, significant savings Yes, small savings Don't know No  No  No  we you taken any steps to reduce wastage generated by unnecessary repeat escribing and dispensing, patient non-concordance and non-standardised pack ses in your area?

We are interested in understanding how clearly and consistently information on branded drug prices is signalled to you (by suppliers, PCT's and other parties) among all the other information about drugs that you receive.

Each of the six groups of drugs to follow contains lines from the same or related Sections of the BNF. Each individual branded drug is listed in the presentation and pack size that would constitute a 'typical' monthly course of treatment. Drugs are listed by alphabetical order of chemical name.

For each of the groups, it would help us if you could attempt to rank the drugs – in the brands, presentations and pack sizes shown – in order of the most expensive (1) to the least expensive, without referring to any price lists. Please do not consider the prices of generics.

Lastly, you are asked which drug from each group you prescribe most often in practice. Please include any drugs not mentioned in the lists below, for example generics.



Rank Proton Pump Inhibitors in order of the most expensive (1) to the least expensive (4), without referring to any price lists.  Please do not consider the prices of generics.
(Check all that apply)
□ Esomeprazole (Nexium), Tablets, 20 mgs, 28 pack □ Lanzoprazole (Zoton), Capsules enc. E/C granules, 30 mgs, 28 pack □ Omeprazole (Losec), Capsules enc. E/C granules, 20 mgs, 28 pack □ Rabeprazole (Pariet), EC Tablets, 20mgs, 28 pack
Which <i>PPI</i> do you prescribe most often in practice (and please state if you prescribe the brand or generic)? (Type text)
Rank Statins - in order of the most expensive (1) to the least expensive (4), without referring to any price lists. Please do not consider the prices of generics.  (Check all that apply)  Atorvastatin (Lipitor), Tablets, 10 mgs, 28 pack  Pravastatin (Lipostat), Tablets, 40 mgs, 28 pack  Rosuvastatin (Crestor), Tablets, 10 mgs, 28 pack  Simvastatin (Zocor), Tablets, 20 mgs, 28 pack
Which Statin do you prescribe most often in practice (and please state if you prescribe the brand or generic)? (Type text)
Rank ACE Inhibitors and AII Receptor Antagonists – in order of the most expensive (1) to the least expensive (6), without referring to any price lists. Please do not consider the prices of generics.   (Check all that apply)  Candesartan (Amias), Tablets, 8 mgs, 28 pack Enalapril (Innovace), Tablets, 10 mgs, 28 pack Irbesartan (Aprovel), Tablets, 150 mgs, 28 pack
□ Losartan (Cozaar), Tablets, 50 mgs, 28 pack □ Perindopril (Coversyl), Tablets, 4mgs, 30 pack □ Valsartan (Diovan), Capsules, 80 mgs, 28 pack  Which ACE Inhibitor/AII Receptor Antagonist do you prescribe most often in
practice (and please state if you prescribe the brand or generic)? (Type text)



expensive (4), without referring to any price lists. Please do not consider the prices of generics. (Check all that apply) ☐ Citalopram (Cipramil), Tablets, 10 mgs, 28 pack ☐ Escitalopram (Cipralex), Tablets, 10 mgs, 28 pack ☐ Fluoxetine (Prozac), Capsules, 20 mgs, 30 pack □ Paroxetine (Seroxat), Tablets, 20 mgs, 30 pack Which SSRI do you prescribe most often in practice (and please state if you prescribe the brand or generic)? (Type text) Rank Other antidepressants - in order of the most expensive (1) to the least expensive (3), without referring to any price lists. Please do not consider the prices of generics. (Check all that apply) ☐ Mirtazapine (Zispin), SolTabs, 30 mgs, 30 pack ☐ Reboxetine (Edronax), Tablets, 4 mgs, 60 pack □ Venlafaxine (Efexor), Tablets, 75 mgs, 56 pack Which of these drugs do you prescribe most often in practice (and please state if you prescribe the brand or generic)? (Type text) Rank Non-Steroidal Anti-Inflammatory Drugs - in order of the most expensive (1) to the least expensive (3), without referring to any price lists. Please do not consider the prices of generics. (Check all that apply) ☐ Celecoxib (Celebrex), Capsules, 200 mgs, 30 pack ☐ Etoricoxib (Arcoxia), Tablets, 60 mgs, 28 pack Meloxicam (Mobic), Tablets, 7.5 mgs, 30 pack Which NSAID do you prescribe most often in practice (and please state if you prescribe the brand or generic)? (Type text) What one factor would help to improve your prescribing decision-making? (Type text)

Rank SSRI Antidepressants - in order of the most expensive (1) to the least



### In which one of the following regions do you work?

□ Greater London
 □ South East (Kent, Surrey, Sussex, Hampshire, Isle of Wight, Berks, Bucks, Oxfordshire, Northants)
 □ South West (Avon, Gloucestershire, Wiltshire, Somerset, Dorset, Devon, Cornwall, Isles of Scilly)
 □ Northern (Northumberland, Durham, Cleveland, North Yorkshire, West Yorkshire Humberside)
 □ North West (Cumbria, Merseyside, Lancashire, Greater Manchester, Cheshire)
 □ West Midlands (Birmingham, Worcestershire, Warwickshire, Staffordshire, Shropshire)
 □ Trent (South Yorkshire, Nottinghamshire, Derbyshire, Lincolnshire, Rutland, Leicestershire)

□ Eastern (Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk, Suffolk)

#### Please select your gender:

(Check one)

Male

□ Female

### 5.2 Definition of English regions

### **Greater London**

South East Kent, Surrey, Sussex, Hampshire, Isle of Wight, Berks, Bucks,

Oxfordshire, Northants

**South West** Avon, Gloucestershire, Wiltshire, Somerset, Dorset, Devon, Cornwall,

Isles of Scilly

**Northern** Northumberland, Durham, Cleveland, North Yorkshire, West

Yorkshire Humberside

North West Cumbria, Merseyside, Lancashire, Greater Manchester, Cheshire)

W. Midlands Birmingham, Worcestershire, Warwickshire, Staffordshire,

Shropshire

**Trent** South Yorkshire, Nottinghamshire, Derbyshire, Lincolnshire,

Rutland, Leicestershire

**Eastern** Bedfordshire, Cambridgeshire, Essex, Hertfordshire, Norfolk, Suffolk