

22 MARCH 2000

COMMITTEE ROOM 2, NATIONAL ASSEMBLY FOR WALES

PRESCRIPTION PRICING DELAYS: CATEGORY D

Issue

1. This paper describes the causes of delays in recent months to the pricing of prescriptions, the effect of those delays, the action being taken to address the problem and possible longer term solutions being considered.

Background: Category D

2. NHS prescriptions dispensed by community pharmacists and dispensing GPs in Wales are priced by Health Solutions Wales (HSW, part of Bro Taf Health Authority) to allow reimbursement. The pricing process normally allows e.g. prescriptions dispensed in February to be reimbursed at the beginning of May. Prescribing information is provided to health authorities to the same timescale allowing them to keep track of their expenditure on this major budget item (at 1999-2000 some £350 million per year in Wales for drugs' reimbursement plus a further £60m for contractors' payments and fees) Arrangements for reimbursing dispensing contractors are complicated and are set out in Annex A.

3. Delays in pricing arise from shortages in the supply and consequential price increases of some generic drugs. In November 1999 the Department of Health announced two studies into the causes of the shortages and the reaction to them by members of the drug supply chain to the Health Select Committee. The first is a fundamental review of generic medicines, commissioned by the Department of Health from Oxford Economic Research Associates. The second is a study of the workings of the generic market by the Office of Fair Trading. Both reports are expected to be published in the summer of this year. In the mean time I shall be bringing forward soon interim proposals for tackling perceived problems in this area.

4. As a result of the shortages dispensing contractors have been unable to rely on their normal suppliers and have had to buy from more expensive sources. To ensure that contractors receive correct reimbursement these items are priced separately from normal items and referred to as Category D. This reimburses the actual amount paid rather than a predetermined average contained in the monthly Drug Tariff. An unprecedented range of heavily used drugs has been added to Category D since last summer, causing an increase from a normal monthly total of about 20 items to a peak of 180 in October 1999. This has fallen to around 90 items in February. Instead of automatically keying in perhaps a two digit code (for a common drug) from memory, pricing clerks have to look up the drug and supplier in a file and key perhaps a nine digit code. Normally pricing a month's prescriptions takes 21 working days. HSW are now pricing September's prescriptions, which normally would have been priced by December, and expect to take 42 days, increasing the backlog already accumulated. By the end of March the Prescription Pricing Service (PPS) in HSW expect to be some 6 months behind schedule.

5. This problem has affected both Wales and England. In England pricing is some three months behind. In Wales the situation has been made worse by the need to introduce new equipment into the pricing organisation in the latter half of last year to overcome potential Year 2000 problems, and during the same timescale the need to move HSW from what is now the National Assembly building in Cardiff Bay, initially into the Pierhead Building and then in new accommodation in Brunel House.

6. The increase in workload for the PPS has caused difficulties in two areas: payments to pharmacists and dispensing GPs; and, the provision of prescribing information to GPs, health authorities and the Assembly. If present trends continue HSW estimate that pricing information for March 2000, the last month of 1999-2000, is unlikely to be available until the end of February 2001. These two problems are being tackled in the following ways.

7. **Payments to pharmacists and dispensing doctors** Delays in the availability of pricing information are overcome by making advance (estimated) payments based on historical information and an adjustment is made when the month concerned is finally priced. As normally calculated, advance payments tend to underestimate contractors' costs, particularly in winter months, and will not allow for the effects of Category D. They are normally only needed for a month or so at a time thus limiting the effect on pharmacists' cash flow.

8. Advance payments have now had to be made for several months and we have therefore agreed a modification to the advance payment

system with the pharmacists' negotiating body in Wales, the Welsh Central Pharmaceutical Committee (WCPC) to overcome potential cash flow problems, especially for smaller independent pharmacists. With effect from January this year an additional 1% has been added to advance payments for each month's difference between the reference price month (that is, the most recent priced month) and the month to which the advance payments relate, to acknowledge changes in average prescription cost over time. This arrangement will also be applied to dispensing doctors. With this adjustment the advance payment system should not underpay pharmacists. Indeed if an early solution is not found there is the likelihood that there will be an element of overpayment as drugs' price inflation over a full year does not normally exceed 6%. The element of uprating may therefore require re-negotiation with the professions if payment delays increase substantially above the present levels. As final pricing information for each month becomes available the advance payment is adjusted either upwards or downwards. Recovery of overpayments (known as clawback) is therefore a normal part of the process. We, the profession and health authorities are all concerned to limit the potential amount of clawback should the need for advance payments persist into the next financial year.

9. Contractors are understandably concerned at the continuation of advance payments, and we are in close discussion with the WCPC about their problems. In response to reports of financial difficulties facing some pharmacists we have asked the profession for evidence of businesses being threatened as a result of the continuation of the advance payment arrangements but have not, to date, received any. Health authorities are also able to be flexible in their payment arrangements should individual pharmacies experience problems caused by e.g. advance payments or clawback, by staging any clawback over a period, should this be necessary. While they are aware of one or two problems, which they are meeting by providing additional funds where circumstances justify it, they do not report any widespread difficulties.

10. **Prescribing information** Health authorities and LHGs rely on prescribing information to manage their budgets and finalise their accounts. In order to ease the transition to cash limiting the dispensing budget and transferring responsibility for its management to health authorities this year, the Welsh Office gave a realistic uplift to the prescribing budget. Latest estimates are that the overall allocation to health authorities will be sufficient. However some health authorities proposed to use a potential surplus in their prescribing budgets to help fund their financial recovery plans. District Audit may have to qualify health authority accounts if accurate and timely pricing information cannot be provided.

11. The Assembly's overall financial management of the drugs' bill will also be undermined by this lack of up-to-date prescribing data. Assembly Officials are discussing options with health authorities and with District Audit about all these issues. They will discuss with HSW how interim prescribing information might be provided and we will work with LHGs and health authorities to minimise the effect that the lack of prescribing information may have on LHGs taking on new responsibilities for managing prescribing. We will also work with health authorities and District Audit to seek to avoid qualification of health authority accounts.

Action to resolve the difficulties

12. The action described in paragraph 6 will ease some of the immediate problems; other solutions are needed to stabilise the situation and then to remove the six month backlog anticipated for the end of March. The difficulties have been approached as follows:

- a. elimination of the six month backlog to the end of 1999-00 and minimising any impact of this on pricing in 2000-01;
- b. measures for 2000-01 to ensure a return to normal pricing during that year and to provide headroom for a longer term solution from 2001 onwards; and,
- c. establishing a modernisation programme for 2000-05.

Resolving the backlog: October to March

13. Assembly officials are in discussion with the WCPC, District Audit and HSW/Bro Taf about arrangements to deal with the backlog by sampling. The proposals are designed to ensure any error is less than the normal operational error of around 1% inherent in the normal arrangements. The smallest pharmacies, those where any potential errors might be greatest, would have their accounts priced in full. An appeal system would be available where a pharmacist could show that e.g. an atypically costly prescription had not been properly taken into account. The detailed proposals are set out at Annex B and we are seeking agreement in time to beginning sample pricing later this month. District Audit and health authority auditors have been asked to indicate that they regard sampling for 1999-00 as acceptable and as sufficient to avoid qualification of accounts.

Action during 2000-01

14. A range of options are under consideration to ensure a return to normal pricing during 2000-01. To be successful they are dependent on the WCPC accepting sample pricing of the backlog in 1999-00.

a. **Sample pricing in 2000-01:** We are discussing with the pharmacy profession a proposal for limited sample pricing (also detailed at Annex B) of the major chain suppliers in Wales (e.g. Boots, Lloyds etc) during 2000-01. The proposal would price all high cost prescriptions in full and also price in full the accounts of independent pharmacists not part of the major chains. This would reduce the workload at HSW by about 33% thus helping to overcome any continuing problems over Category D and any delays in pricing prescriptions for April 2000 caused by the need to price the backlog to March. HSW are in discussion with the larger contractors to see if access can be gained to the prescribing data through their records. Discussions are also being held with the auditors to ensure that their requirements are met.

b. **Changing the definition of Category D items:** The problem has arisen because of the increase in the number of Category D items and a change in the definition of those items allowing them to be priced in a more normal way would be the quickest way to stabilise the situation. At the moment we are dependent on DoH to negotiate this with the Pharmaceutical Services Negotiating Committee (PSNC) on a Wales and England basis. DoH have proposed changes to the Category D arrangements, although these are unlikely to come into effect until next September. Alternative, wholly Welsh, arrangements over Category D are also being considered but are similarly unlikely to have an immediate effect.

c. **Changing the way prescriptions are priced:** We are considering with the profession and HSW changes to pharmacists' computer software to allow prescriptions to be endorsed with a code which pricers at HSW could record directly. This would save time particularly for new pricers and in respect of Category D items. It is however unlikely that this could be introduced before the middle of this year. This option has considerable potential benefits via the use of new technology at HSW, introduced for the Year 2000. Once fully operational this could allow some of the current manual pricing to be done electronically.

d. **Making full use of the new technology:** As a development of c., in the longer term it may be possible to use recently installed equipment to read far more information from the prescription form electronically thus reducing substantially the need for manual pricing. This is likely to be a longer term solution.

e. **Recruit additional pricers at HSW:** This is not an immediate solution as it takes some 9 months to recruit and train a pricer to reach an acceptable standard (2/3 of the speed of an expert). HSW were unable to recruit additional staff in the latter half of last year because of the introduction of new equipment and the need to retrain existing staff. Recruitment now would therefore give an improvement beginning in the Summer and Autumn. Recruitment can now be considered as part of a range of measures to overcome the backlog and return to normal pricing for which additional resources (£500,000) have been made available to HSW/Bro Taf. Bro Taf HA has been asked to report on the options available. In addition the National Assembly has funded in full overtime costs incurred at HSW during 1999-00 as a result of Category D.

Conclusion

15. There is a problem over delays in pricing of prescriptions, although this is not unique to Wales. We are seeking to avert the immediate problems arising by working closely with HSW and the professions and involving District Audit at an early stage. We will press DoH and the PSNC to agree a solution which will help stabilise the backlog. We are considering alternative ways of pricing prescriptions which will reduce the backlog and make the system more robust in future. In financial terms, the 1999-2000 allocations were robust enough to provide enough cash-funding to meet the costs of paying Chemists and the other contractor professions. The transitional arrangements in place for paying contractors on account will, however, only be affordable if the delays in pricing can be stabilised. If the position markedly deteriorates, we shall need to consider changing the terms of the interim agreement.

**PCH
DIVISION**

ANNEX A

PAYMENT ARRANGEMENTS FOR PRESCRIPTIONS

1. Pricing prescriptions does not only relate to drugs' costs but takes into account several factors. In cash terms drugs will cost around £350m gross in 1999-2000. Pharmacists and dispensing contractors are expected to collect around £20 million charge income partially to offset this.. In addition, pharmacists' pay is included - this amounts to a further £61m (estimated) for this financial year and covers e.g. .the

dispensing fee.. These remain a direct cost to the Assembly and health authorities acting as paying agents.

2. The normal pricing cycle is also complicated. For example a prescription dispensed in September will normally work through the system thus:

- Dispensed: January
- Sent to HSW: February (first week or so)
- 80% estimated cost paid 1 March based on volume of prescriptions declared by the contractor (the remaining 20% of the payment contains the final costed settlement of December dispensed scripts.)
- Pricing finalised mid March and payment schedules sent to health authorities
- Actual settlement paid 1 April (adjusted to allow for the 80% estimate already paid, but including payment of 80% February's estimated costs)

The actual day of settlement is important as this prevents excess payments from the health budget on prescribing at the end of the year. If the payment due on 1 April (final payments on prescriptions dispensed in January) were paid a day early, the health budget would be broken with 13 months' payment instead of 12 against one year, resulting in a £30m overspend.

ANNEX B

PRESCRIPTION PRICING: SAMPLING STUDY

Background

1. Approximately 40 million prescriptions per annum are dispensed in Wales at a total cost in 1998-99 of £380m.
2. These are submitted to Health Solutions Wales for pricing by the practitioner payments division. There are two main outputs:
 - i. payment schedules to enable Health Authorities (HAs) to pay dispensing contractors; and
 - ii. the information required for the National Assembly, Health Authorities, Local Health Groups (LHGs), etc to monitor drug expenditure, down to the level of the individual practice.
3. The processing of the 40 million prescriptions follows a monthly cycle and staffing levels have been set to complete a cycle within 21 working days ie to meet all deadlines for payment and information.
4. Within the overall list of prescribed drugs is a category known as Category D drugs, for which the processing time is substantially longer than that for other drugs. Historically, there have been between 20 - 30 drugs on the Category D list but, because of changes in the pharmaceutical industry, this number increased in 1999 to a peak of 180 in October, with the consequence that the processing cycle increased from 21 to an estimated 42 days. The number of Category D drugs has since been decreasing but still (in January 2000) exceeds 80. This translates to a processing cycle time of 30 days, ie a backlog has built up which is still increasing. The current backlog is 3 months and, by the end of the financial year 1999-00, is projected to be at least 6 months.
5. There is, therefore, the acute problem of prescriptions dispensed during 1999-00 for which some pricing solution is required immediately. But there is also the long-term chronic problem of a system which cannot cope with possible future fluctuations in the size of the Schedule D list, nor indeed with any similar event which increases the work content of the processing cycle.

Types of solution

6. There are 3 types of solution to the problem:
 - i. increase the resources (ie the manpower) to reduce the monthly processing time. This is not a feasible option on cost

grounds since a doubling of the staff would currently be needed even to maintain the existing backlog of 3 months. Even if the financial resources were available, the staff training time would delay any reduction in the backlog for at least 6 months;

ii. effectively write off the pricing of the prescriptions dispensed during the last quarter of 1999-00. Make estimates based on priced prescriptions for the first 9 months, combined with counts of prescriptions for the previous 3 months. This is a feasible option but is effectively a dead-end, with no potential for development in the next financial year. It would also give a very negative message to customers;

iii. introduce some sort of sampling scheme. This has been proposed in the past but had been rejected for various reasons which may not now be valid. The remainder of this paper concentrates on this approach.

The sampling option

7. If a quantity (such as the average cost of a prescribed item) is to be estimated using statistical sampling techniques, there are two issues to be considered: a) bias, and b) precision.

8. Proper statistical design can ensure that an estimate is unbiased ie that on average it will give the 'true' result whatever the sample size. The precision of an estimate, however, depends both on the variability of the totality of - for example - prescriptions, and also on the sample size. The variability is an inherent property of the system and cannot be changed, whereas the sample size can be varied to achieve the necessary degree of precision. The greater the variability, the larger the sample size needed to achieve a given level of precision.

9. To exemplify this process, calculations were made on the 3.5 million items dispensed during one month. The average net ingredient cost was £9.44 and the standard deviation of the distribution was £18.46. If the 'true' figure of £9.44 was to be derived from a random sample of 10,000 items, the estimate would lie within the limits of True Value +/- 3.9% of True Value.

Proposal for the short term

10. Full pricing of the prescriptions dispensed in September 1999 started on 19 January 2000 and is due to finish in mid-March 2000. Prescriptions dispensed during the 6 month period October 1999 - March 2000 should, from that date, be dealt with on a sample basis, the sampling fractions being given in Table 1.

Table 1. Sampling fractions for the short term: October 1999 - March 2000

<i>Type of contractor</i>	<i>No of prescriptions dispensed per mth</i>	<i>No of prescriptions to be priced</i>	<i>Sampling percentage</i>
Pharmacists	3,200,000	320,000	10%
Appliance Contractors	3,000	3,000	100%
Dispensing doctors	190,000	190,000	100%
Personally administered practices	52,000	52,000	100%
All Types	3,445,000	565,000	16%

11. Assuming that the length of the pricing process is directly proportional to the number of items priced, the total estimated processing time for the prescriptions priced between October 1999 and March 2000 is 42 days. The details of this estimate are set out in Appendix 1. The critical point is that results for the financial year 1999-00 will be available by the target date of 15 May 2000.

Precision of estimates for 1999 - 2000

12. Since precision depends on the size of the sample, all estimates for Wales as a whole will be extremely precise, whereas estimates for smaller administrative areas/pharmacies/practices will be subject to more variation. Table 2 shows the degree of precision to be expected for various levels.

Table 2. Precision of estimates: 1999-2000

	<i>Level of estimate</i>	<i>Approximate number priced</i>	<i>Limits</i>
Monthly	Wales	565,000	True Value +/- 0.38%
	Health Authority	115,000	True Value +/- 0.86%
	LH Group	28,000	True Value +/- 1.71%
	Practice	1,000	True Value +/- 9.38%
	Pharmacy	500	True Value +/- 17.10%
Annual	Wales	24,000,000	True Value +/- 0.02%
	Health Authority	4,800,000	True Value +/- 0.05%
	LH Group	1,200,000	True Value +/- 0.10%
	Practice (Medium size)	40,000	True Value +/- 0.54%
	Pharmacy (Medium size)	30,000	True Value +/- 0.67%

13. The figures in Table 2 show that figures for Wales, Health Authorities and Local Health Groups are probably adequate for monthly analysis but that the final reconciliation for the financial year for individual pharmacies should be based on the annual figures.

Practical short term considerations

14. Because pharmacies are already dispensing prescriptions for January, it is too late to make any changes at pharmacy level for this financial year. Sampling must therefore be carried out on the full set of prescriptions received from pharmacies. It is suggested that, for each month, a digit is chosen at random between 0 and 9 and that, after numbering, only prescriptions with numbers ending in that digit are priced.

15. More detailed consideration is needed for how the analytical procedures are carried out but one possible method is to generate 9 'virtual' identical prescriptions for each priced prescription and to proceed as normal with all analytical processes.

Proposal for the medium term: from April 2000

16. From the start of the financial year 2000-01, it is suggested that each pharmacy separately identifies each prescription likely to exceed a fixed sum (say £100). This will average about 20 per pharmacy per month. Pharmacies would also be divided into 2 groups:

- i. Groups of pharmacies 'owned' by individual companies which submit more than (say) 1 million prescriptions per annum. There are 9 groups which fall into this category, which we will designate Category A.
- ii. All other pharmacies.

17. Sampling from April 2000 will then follow the pattern set out in Table 3.

Table 3. Sampling fractions for the medium term: from April 2000

Type of contractor	Number of prescriptions	No of prescriptions dispensed per month	Sampling percentage to be priced
Category A pharmacies			
Expensive prescriptions	10,000	10,000	100%
Other prescriptions	1,465,000	223,000(1)	15%
Category B pharmacies			
Expensive prescriptions	6,000	6,000	100%
Other prescriptions	1,719,000	1,719,000	100%
Appliance contractors	3,000	3,000	100%
Dispensing doctors	190,000	190,000	100%

Personally administered practices	52,000	52,000	100%
All types	3,445,000	2,203,000	64%

(1) Varying sampling fractions in this exemplification have been chosen to reduce the processing period by about 36%. This means that a full pricing regime, taking 30 days, would be reduced to 20 days. Future shocks to the system could be accommodated by changing the sampling fractions.

Precision of estimates for medium term: from April 2000

18. With the sampling fractions set out in Table 3 and Appendix 2, it is possible to calculate the precision of estimates for various categories of customer. It should be noted that, by excluding the expensive prescriptions, the mean cost is reduced to £8.66 and the standard deviation is reduced much more significantly to £11.83 (cf £9.44 and £18.46 respectively for the whole distribution).

19. The results of these calculations are given in Table 4.

Table 4. Precision of estimates: from April 2000

	Level of Estimate	Approximate sample size	Limits
Monthly	Wales	2,200,000	True Value +/- 0.05%
	Health Authority	440,000	True Value +/- 0.12%
	L H Group	110,000	True Value +/- 0.24%
	Practice	4,000	True Value +/- 1.29%
Annual	Pharmacy (Cat A)	27,000	True Value +/- 1.49%
	Wales	26,500,000	True Value +/- 0.02%
	Health Authority	5,250,000	True Value +/- 0.03%
	L H Group	1,325,000	True Value +/- 0.07%
	Practice	45,000	True Value +/- 0.37%
	Pharmacy (Cat A)	325,000	True Value +/- 0.43%

NB All other (Category B) pharmacies are excluded from sampling procedures

20. The precision demonstrated in Table 4 shows, for example, that the monthly outturn for a Local Health Group with a monthly budget of about £1.2m would be estimated within limits of +/- £3,000. Similarly, a Category A pharmacy group with a total annual cost figure of about £18m would be estimated within limits of +/- £80,000.

21. It would be possible, of course, to use some other cut-off point to define "expensive" prescriptions. Appendices 3 and 4 show the effect of using a £50 limit.

Practical medium term considerations

22. The most pressing need will be to ensure that pharmacies separate out the high cost prescriptions, starting in April 2000. The scheme will be robust enough to withstand any tendency to include some cheaper prescriptions in the high cost category because what the pharmacist would gain on the definite inclusion of a (say) £90 prescription, he/she would lose on the estimated average cost of his/her cheaper prescriptions.

23. There would also need to be negotiations with the 9 pharmacy groups listed in Appendix 2 - demonstrating to each group that, over both monthly and annual cycles, the estimating procedures were sufficiently precise.

24. Sampling fractions for each group could be varied at any time to suit the demands of processing.

25. From the analytical point of view, there might still be an advantage in constructing 'virtual' prescriptions. This would obviate the need

for any change to the programming routines.

Discussion

26. In the short term, the overwhelming advantage of the proposed course of action is the fact that there is no alternative.

27. In the medium term, the advantages of the proposal are minimum disruption to collection processes minimum disruption to analysis flexibility in the face of unforeseen changes

28. The disadvantage is the misguided but understandable fear from pharmacists that they may be getting less money than that to which they are entitled. This will indeed be true in some months but will balance out over the longer term.

29. An argument which could be deployed to counteract the opposition to any form of sampling is that even 100% pricing produces variability in the form of random error. A study of recent figures from Internal Audit shows that, for 67 randomly selected batches of prescriptions, the percentage of errors ranged from 0.09% to 11.80% of items. There was no significant bias towards overpaying or underpaying but the 95% limits for the net errors were +/- 1.55% which should be compared with the 95% limits of sampling error set out in Tables 2 and 4.

Conclusion

30. Sampling would appear to be a viable alternative to 100% pricing but, if the short term problem is to be addressed, a decision on implementation needs to be taken within the next few weeks.

DAVID ADAMS JONES

Consultant Statistician

20 January 2000

POSTSCRIPT

Following a meeting on 17 February to discuss the conclusions of this report, modifications have been made to the short term sampling scheme to address concerns that scripts for small pharmacies - those submitting less than 2000 prescriptions per month - should be priced on a 100 per cent basis. Appendix 5 shows the results of this modification.

Appendix 1: Timetable for payment 1999-2000

Current system				Sampling scheme			
Batch	Target date for completion	Estimated processing days	Estimated completion date	Delay (days)	Estimated processing days	Estimated completion date	Delay (days)
Aug 99	Oct 15 1999	n/a	Jan 18 2000	96	n/a	n/a	n/a
Sept 99	Nov 15 1999	40	Mar 14 2000	119	n/a	n/a	n/a
Oct 99	Dec 15 1999	42	May 11 2000	147	7 (from Mar 15)	Mar 23 2000	98
Nov 99	Jan 15 1999	40	July 6 2000	172	7	Apr 3 2000	78
Dec 99	Feb 15 1999	30	Aug 17 2000	183	7	Apr 12 2000	56
Jan 00	Mar 15 2000	25	Sept 21 2000	190	7	Apr 21 2000	37

Feb 00	Apr 15 2000	20	Oct 19 2000	187	7	May 2 2000	17
Mar 00	May 15 2000	20	Nov 16 2000	185	7	May 11 2000	

(1) Estimates for September and October batches are firm and the other figures assume that Schedule D numbers return to 'normal' by March 2000. This is probably an unrealistic assumption.

Appendix 2: Suggested sampling fractions for Category A pharmacies - from April 2000

	Approximate number of prescriptions per month	Sampling percentage	Approximate sample size per month
Category A pharmacies (non-expensive prescriptions):			
MH	264,000	10%	26,500
Boots	388,000	10%	39,000
Howard & Palmer	139,000	20%	28,000
Lloyds	94,000	20%	19,000
Moss	84,000	20%	17,000
National Co-op	114,000	20%	23,000
Rowland	229,000	10%	23,000
Sheppard	99,000	20%	20,000
Tesco	54,000	50%	27,500
Total	1,465,000	15%	223,000
Category B pharmacies (& expensive Cat A prescriptions):			
All others	1,735,000	100%	1,735,000
Other types	245,000	100%	245,000
Total	3,445,000	64%	2,203,000

Appendix 3: Effects of changing upper cost limit for sampling

	No upper limit	Upper limit of £100	Upper limit of £50
Number of prescriptions excluded from sample (per month)	n/a	16,000 (0.5%)	70,000 (20%)
Value of prescriptions excluded from sample	n/a	£2.9m (8.7%)	£6.5m (19.6%)
Average cost of excluded prescriptions	n/a	£180	£93
Average cost of sampled prescriptions	£9.43	£8.66	£7.74
Standard deviation of sampled prescriptions	£18.46	£11.83	£9.23

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Appendix 4: Effect of upper cost limit on individual Category A pharmacies

Pharmacy	Prescriptions per month	Prescriptions excluded		95% confidence limits (monthly)		95% confidence limits (annual)	
		£100 limit	£50 limit	£100 limit	£50 limit	£100 limit	£50 limit
A & H	265,000	2,000	7,000	+/-1.50%	+/-1.30%	+/-0.43%	+/-0.37%
Boots	390,000	2,500	10,500	+/-1.24%	+/-1.08%	+/-0.36%	+/-0.31%
H & P	140,000	1,000	4,000	+/-1.46%	+/-1.27%	+/-0.42%	+/-0.36%
Lloyds	95,000	500	2,500	+/-1.78%	+/-1.54%	+/-0.51%	+/-0.44%
Moss	85,000	500	2,250	+/-1.88%	+/-1.63%	+/-0.54%	+/-0.47%
National Co-op	115,000	750	3,000	+/-1.61%	+/-1.40%	+/-0.47%	+/-0.41%
Rowland	230,000	1,500	6,250	+/-1.61%	+/-1.40%	+/-0.47%	+/-0.41%
Sheppard	100,000	750	3,000	+/-1.73%	+/-1.50%	+/-0.50%	+/-0.43%
Tesco	55,000	500	1,500	+/-1.48%	+/-1.28%	+/-0.43%	+/-0.37%
Total	1,475,000	10,000	40,000				

Appendix 5: Modification to Short Term Scheme

At a meeting held on February 17, concern was expressed that small pharmacies, such as those in the Essential Small Pharmacies Scheme could experience problems if one or more very expensive prescriptions were omitted from the 10% sample.

To address this concern, the sampling process is amended to include 100% pricing for all pharmacies submitting less than 2000 prescriptions per month. The characteristics of the amended scheme are shown in the following tables:

Table 1A Sampling Fractions for the Short Term: Oct 99 - Mar 2000

Type of Contractor	Number of prescriptions dispensed per month	Number of prescriptions to be priced per month	Sampling Percentage
Small Pharmacies	90,000	90,000	100C/n
Other Pharmacies	3,110,000	311,000	10%
Appliance Contractors	3,000	3,000	100%
Dispensing Doctors	190,000	190,000	100%
Personally administered practices	52,000	52,000	100%
All Types	3,445,000	646,000	19%

Table 2A Precision of Full Year Estimates for 1999 - 2000

	Approx Number of Prescriptions priced	Limits
Wales	24,500,000	True Value +/- 0.02%
Health Authority	4,900,000	True Value +/- 0.05%
Local Health Group	1,225,000	True Value +/- 0.09%
Practice (Medium size)	41,000	True Value +/- 0.52%
Pharmacy (Medium Size)	30,000	True Value +/- 0.67%

Note that overall precision has improved very slightly and that all small pharmacy prescriptions are priced.

The extra pricing equates to an overall increase in the sampling fraction from about 16.5% to 18.5% which adds about 6 working days to the timetable set out in Appendix 1.