

## **PHARMACEUTICAL DIRECTORATE**

SENIOR MANAGEMENT TEAM MEETING: 11/12/2006

**ITEM NO:**

### **UPDATE ON GROWTH IN PRESCRIPTION VOLUME AND COST YEAR TO SEPTEMBER 2006**

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#### **KEY FINDINGS**

- Prescription volume for the year to September 2006 increased by 4.9%, this is the first time in nearly 3 years that growth has been below 5%. Growth in volume for 2006/07 is still expected to be 5.5%. Uptake of the repeat dispensing service is estimated to contribute about 0.5% of this growth.
- Prescription cost has increased by 3.0% in the year to September 2006 compared to the same period in the previous year. Price changes to drugs in category M are taking place between October 2006 and March 2007 and will help to control growth in spending on the drugs bill.
- Repeat dispensing is continuing to slowly increase. In the quarter to September 2006 repeat forms were submitted from 288 PCTs. However 198 PCTs still have an activity level of less than 0.5% of all items being supplied on repeat forms.
- Prescribing by nurses has increased in the year to September 2006 (40.8%) to 5,453,647 items. Similarly, pharmacists prescribed 23,217 items in the year to September 2006 an increase of 144.4% when compared to the previous 12 months.
- August 2006 saw the first prescriptions received from 'other' health professionals. The NHSBSA PPD has 7 physiotherapists and 1 podiatrist on the NHSBSA PPD database of prescribers. In the quarter to September 2006, 26 prescriptions were received from physiotherapists.
- ? As at 6<sup>th</sup> November 2006 there are over 2,400 private prescribers (including 1 private nurse) on the NHSBSA PPD database of prescribers. In the quarter to September 2006, 8,976 private prescriptions were received, all from doctors.

#### **INTRODUCTION**

This report explores trends in prescription volume and cost for the year to September 2006 compared to the previous year. The report aims to identify whether there have been changes to the main drivers for growth in volume and cost and to estimate likely future growth in volume. Data are from PACT (Prescribing Analysis and Cost) and relate to general practice prescribing in England. Prescription volume has been analysed using the item as the measure; net ingredient cost has been used to express cost.

## 1. HEADLINE TRENDS

### 1.1 Volume

In the year to September 2006 prescription volume increased by 4.9% per annum (to more than 735 million items). Over the last two years volume growth has fluctuated between 5.0% and 6.0%, however, this appears to be decreasing (figure 1). The year to September saw growth below 5.0% (to one decimal place) for the first time since the year to November 2003.

Volume in September 2006 is less than expected; however, early indications from declarations made by pharmacy contractors for October 2006 indicate volume will be greater than expected when compared to previous years. It may be the case that some of the prescribing normally taking place in September has shifted to October.

The number of monthly items has been higher in July, August and September when compared to last year; however, the growth for September 2006 was much smaller than seen in September in previous years (figure 2).

Figure 1: Change in rate of growth of prescription items

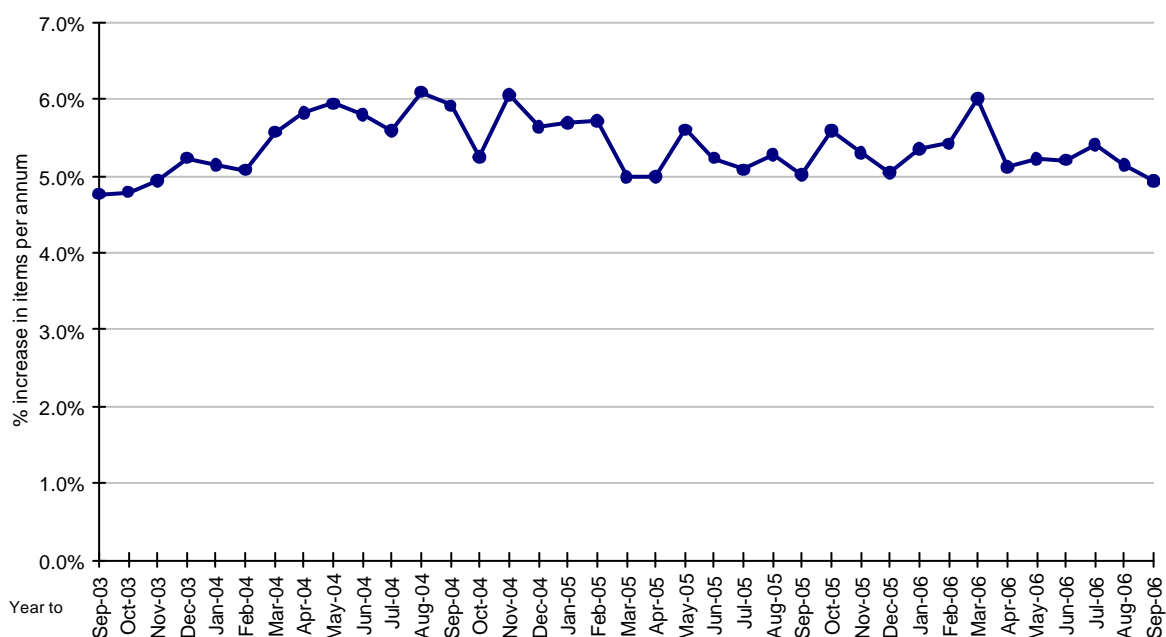


Figure 2: Number of Items Prescribed in General Practice in England

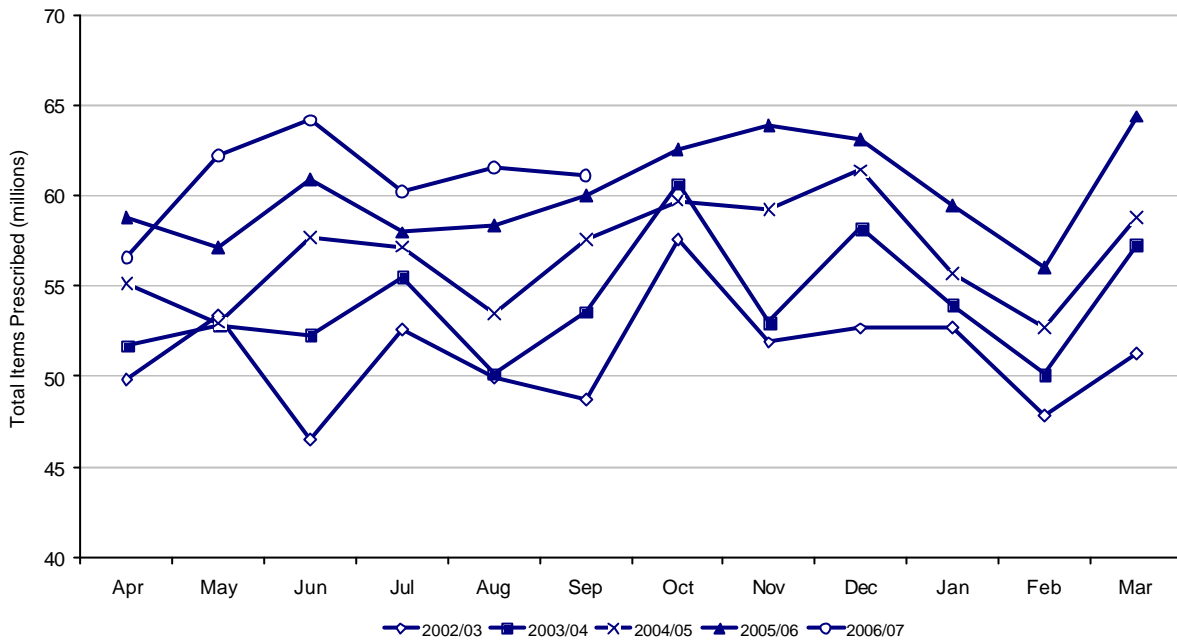


Figure 3: Trend in Items by Number of Dispensing Days in the Month

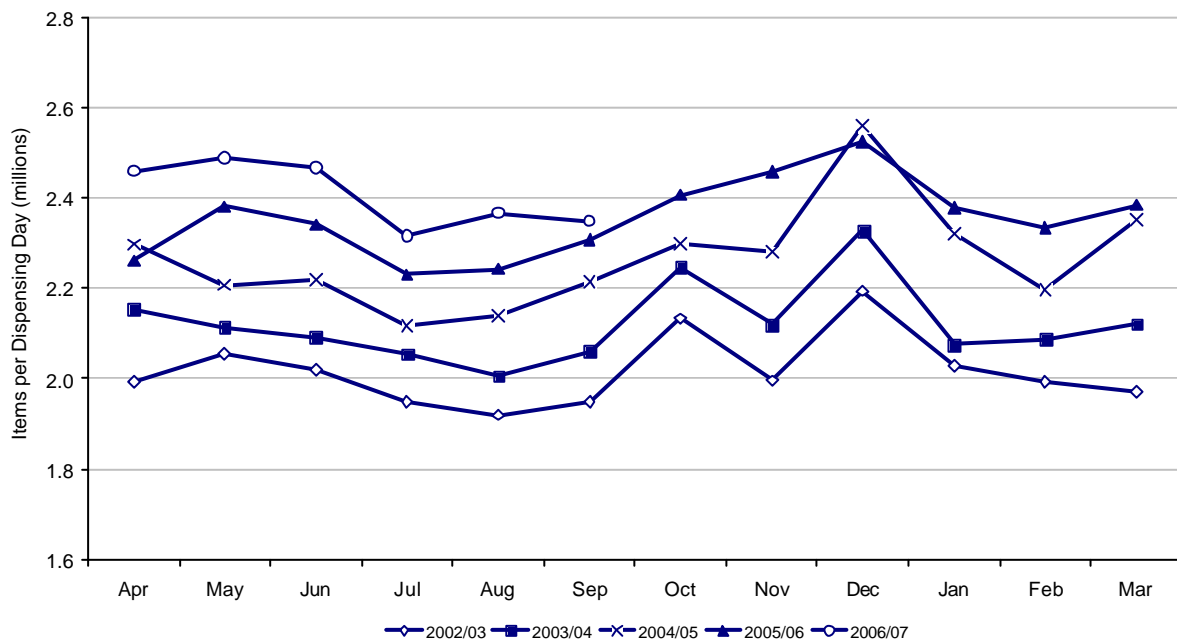


Figure 3 takes into account the number of “dispensing days” in each month. Dispensing days includes week days and Saturdays but excludes Sundays and bank holidays. When the number of items in a month is divided by the number of dispensing days, there is less variation than for items alone. Considering dispensing days, the growth in volume for the year to September 2006 is 4.2%. The trend in the quarter to September 2006 is different to that observed over the

last 4 years, generally an increasing trend has been observed from July to September, however September 2006 volume is less than that seen in August 2006.

## 1.2 Cost

Prescription cost has risen to £8,020 million in the year to September 2006, a 3.0% growth rate compared to the previous year. Figure 4 shows that the rate of growth in prescribing cost has been slowing down steadily over the past three years, however, over recent months a change in this trend is observed. Decreases were originally due to the implementation of Department of Health (DH) policies to control spending on the drugs bill in primary care including the Pharmaceutical Price Regulation Scheme (PPRS) and Category M. However these have now been running for over 12 months and the effect of the policies appears to be stabilising.

Figure 4: Change in Rate of Growth of Prescription Costs

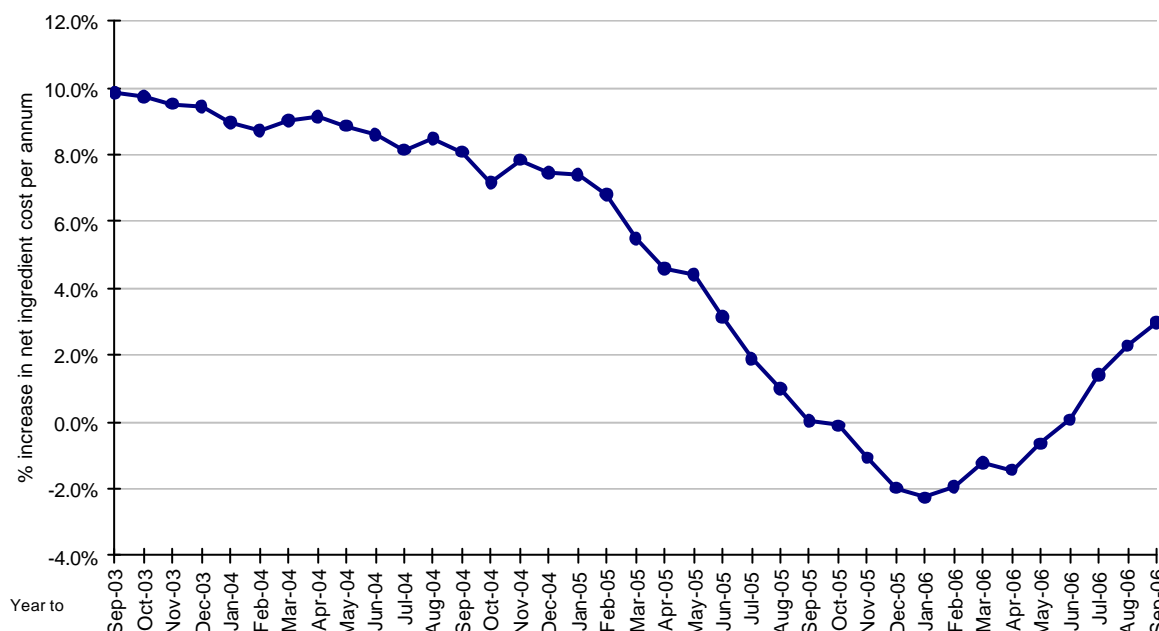
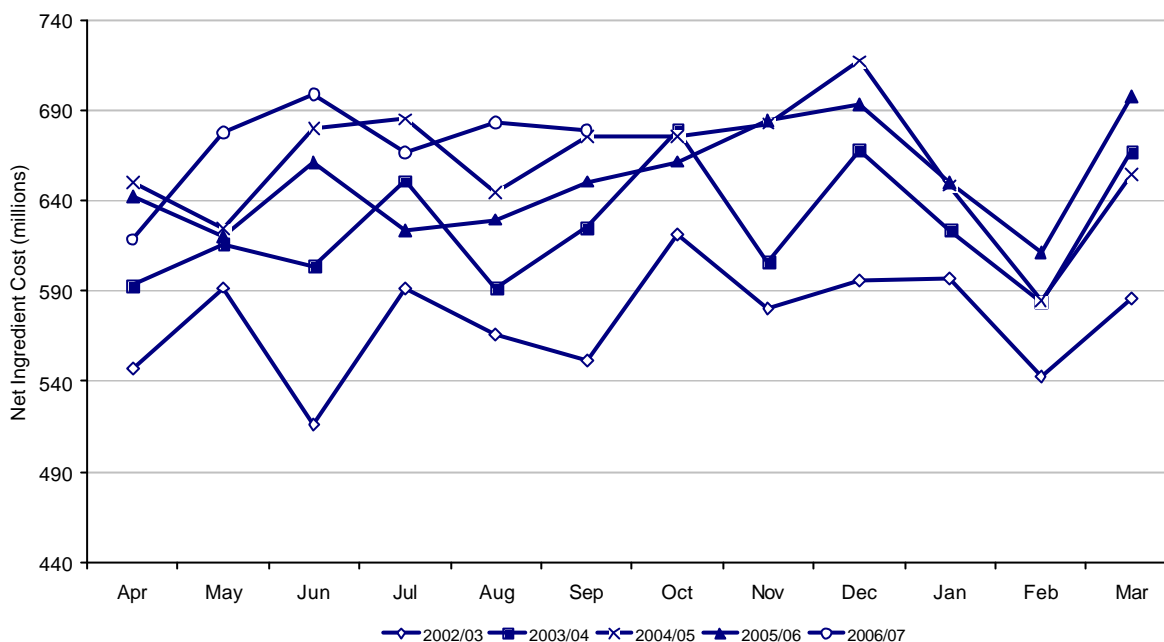


Figure 5 shows the total spending on prescribed drugs in general practice year on year for the last 5 years. Cost in July, August and September have all increased compared to the previous year. The trend between July and September has been relatively stable for the last two years when compared to the previous three years.

Figure 5: Total Spending on Prescribed Drugs in General Practice in England



## 2. FACTORS AFFECTING GROWTH IN VOLUME AND COST

### 2.1 Introduction

Prescription volume has been growing year on year in primary care with patients receiving more items per head. Volume can increase when new products are introduced for an indication not previously treated by drugs e.g. the bisphosphonate drugs used for the prevention and treatment of osteoporosis. New products do not increase volume if they replace an older product. Changes to indications for prescribing of older drugs can also increase volume because more patients would become eligible for drug therapy. Volume also increases if the duration of prescriptions is shortened e.g. if a patient receives 4 prescriptions of 1 week duration instead of 1 prescription of 28 days duration. There are various reasons why prescription duration for individual patients can decrease; one important influence is the introduction of repeat dispensing. This section of the report looks at trends in volume and cost in individual therapeutic areas and at what is happening with repeat dispensing to determine how prescription volume is likely to change over the next year.

### 2.2 Growth in Volume in Individual Therapeutic Areas

Table 1 compares the prescription volume per annum for the six largest therapeutic areas in the year to September 2006 with the previous year. These six areas make up 76.6% of prescribing in the year to September 2006. Figure 6 shows that for the top area (cardiovascular system) the rate of growth for items has slowed between September 2005 and September 2006 from 9.7% to 7.7% per annum, this is the first time in over 3 years that growth has been below 8.0%. Between September 2005 and September 2006 the rate of growth in items per annum for the second largest area (central nervous system) has fluctuated

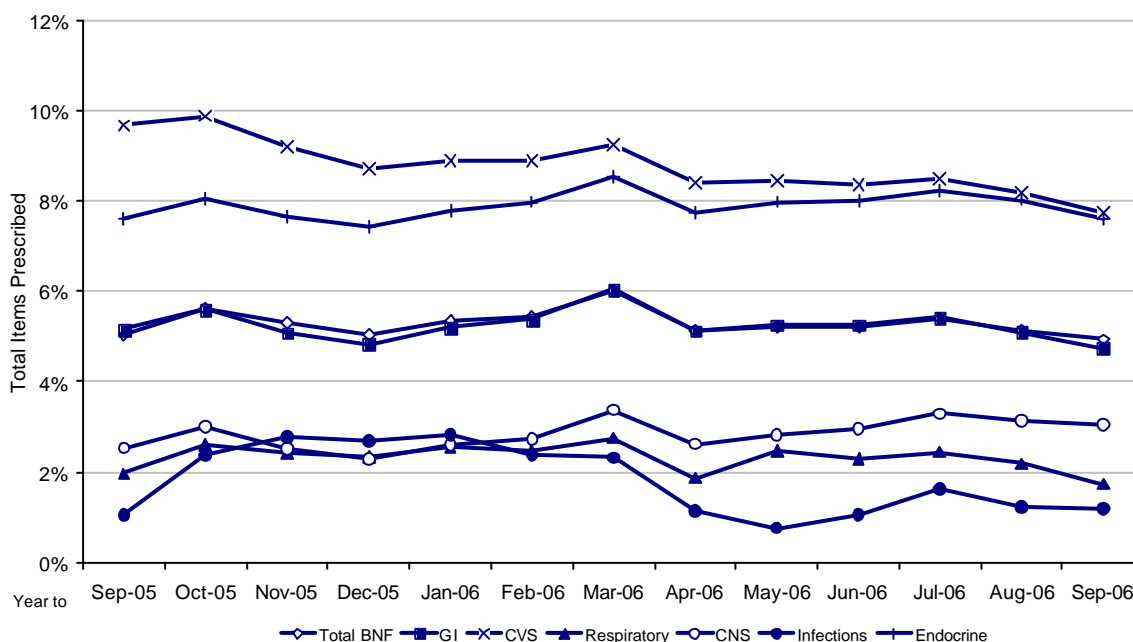
between 2.3% and 3.4% with the largest increase of 3.4% in March 2006. The trend in the other top therapeutic areas is towards faster growth in volume in the year to September 2006 compared to 2005.

**Table 1: Volume of the Top Six Therapeutic Areas based on Volume.**

Therapeutic Area	Items (Millions)		
	Year to Sept 2005	Year to Sept 2006	% difference
Cardiovascular system	213.90	230.46	7.7
Central nervous system	121.24	124.93	3.0
Endocrine system	57.0	61.34	7.6
Respiratory system	51.46	52.36	1.7
Gastro-intestinal system	52.84	55.35	4.7
Infections	38.17	38.62	1.2
All others	165.97	172.04	3.7
<b>Total</b>	<b>700.58</b>	<b>735.09</b>	<b>4.9</b>

Included in the 'All others' category is nutrition and blood and other drugs and preparations, both have increased in the year to September 2006 when compared to the same period of the previous year by 10.8% and 40.7%, respectively.

**Figure 6: Change in Rate of Growth of Prescribing for Top 6 Therapeutic Areas**



The increases in volume in the cardiovascular and endocrine areas are largely due to the implementation of the National Service Framework (NSF) for Coronary Heart Disease and the NSF for Diabetes. The NSF for older people

covers prescribing for stroke and osteoporosis, and therefore prescribing in the cardiovascular, endocrine, and nutrition and blood therapeutic areas is increasing as a result. The NSFs set national standards and identify key interventions for a defined service or care group. As a result more patients have received these interventions.

Newly marketed drugs that represent therapeutic advances are often referred to the National Institute for Health and Clinical Excellence (NICE) for the provision of national guidance on their use. Previous reports have shown that NICE technology appraisals are not usually a major driver of growth in volume. Technology appraisals often focus on choice of drugs therefore volume should not change appreciably as a result. Clinical guidelines focus on appropriate prescribing for specific diseases or conditions and are more likely to affect volume.

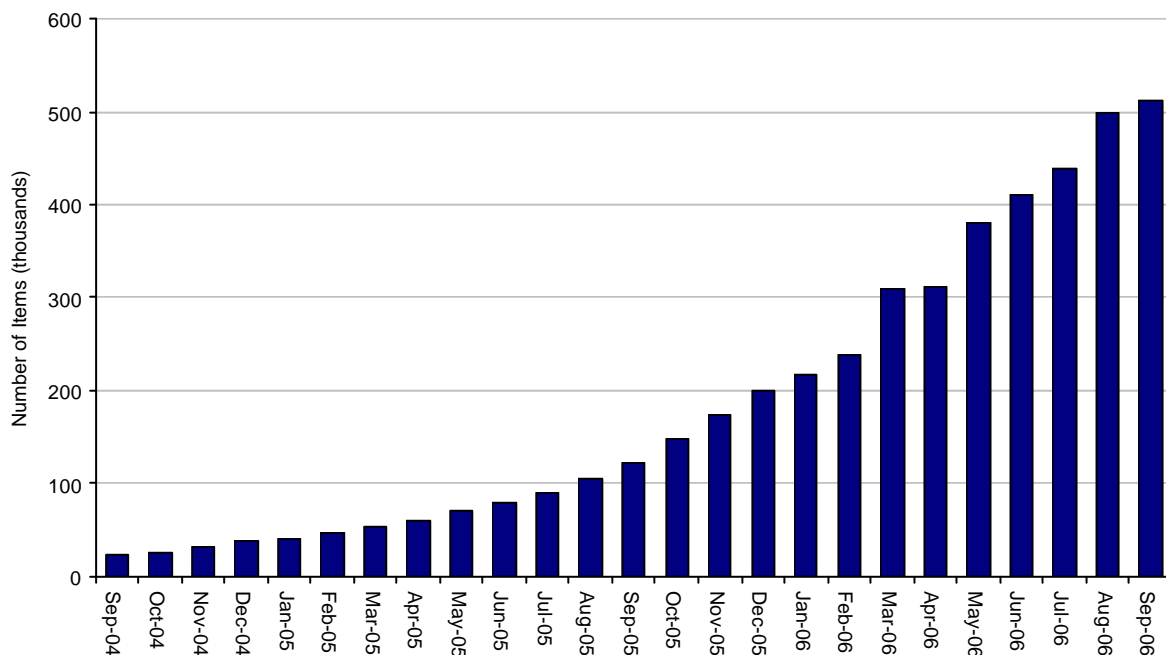
However, the NICE clinical guideline for the management of hypertension in adults in primary care (published June 2006) was not expected to significantly increase volume since the guideline recommends a change in prescribing from beta-blockers to either thiazide diuretics, calcium channel blockers and ACE inhibitors or a combination of these drugs for patients currently receiving treatment rather than an increase in the number of patients eligible for treatment. Cost on the other hand, was expected to increase by approximately £58 million per annum due to some of the recommended drugs being more expensive than beta-blockers. Comparing the quarter to September 2006 to June 2006 reveals that the number of prescriptions for beta blockers has decreased (132,417 items, -1.9%) whilst items for the three replacement drugs have increased by 498,909 items (2.6%), which is a slight increase in prescribing overall in the management of hypertension (366,492 items, 1.4%). Over the same time periods the cost to manage hypertension has increased by 6.1% (approximately £8.6 million) and the majority of this cost can be attributed to the prescribing of calcium-channel blockers that has increased 12.7% (approximately £7.3 million).

In January 2006 a NICE technology appraisal for statins for the prevention of cardiovascular events was published. It was estimated 1.7 million additional people in England and Wales would receive treatment with statins leading to an increase in volume. In the quarter to September 2006 total items prescribed for all therapeutic areas increased by 3.7% (approximately 6.5 million items) compared to the same quarter of the previous year, of which approximately one fifth of this increase can be attributed to statins. This is not unexpected since a sudden increase in volume was not anticipated because of the time it will take to identify appropriate patients for statin therapy. However this guidance should continue to increase volume growth in cardiovascular system drugs throughout 2006/07. One of the NHS Institute Productivity Metrics measures the percentage of items for simvastatin and pravastatin as a percentage of all statin prescribing. By prescribing the generic simvastatin and pravastatin rather than the more expensive atorvastatin for example, the NHS could release £80 million a year. More and more PCTs are adopting this prescribing practice and could lead to decreasing costs for statin therapy and drugs for the cardio vascular system.

A new General Medical Services (GMS) contract was implemented in April 2004. It had the potential to increase prescription volume (and cost) because of the introduction of the Quality and Outcomes Framework, which rewards practices for improving patient care in a number of clinical domains. The drugs that fall into the clinical domains of the Quality and Outcomes Framework made up 50% of overall prescribing and 53% of cost in the year to September 2006. Most of the areas of prescribing covered by the Quality and Outcomes Framework are already areas of high growth and the GMS contract helps to maintain this growth. The proportions above are stable on last quarter, however, they are greater than figures reported last financial year due to eight new clinical domains being added to the Quality and Outcomes Framework for 2006/07. The new clinical domains include dementia, depression and obesity but they are not expected to increase prescription volume significantly.

It should be noted that there is overlap between the groups of drugs covered by NICE guidance, National Service Frameworks and the GMS contract. The combination of all the guidance maintains the pressure on prescribing in these areas.

Figure 7: Trends in Repeat Dispensing

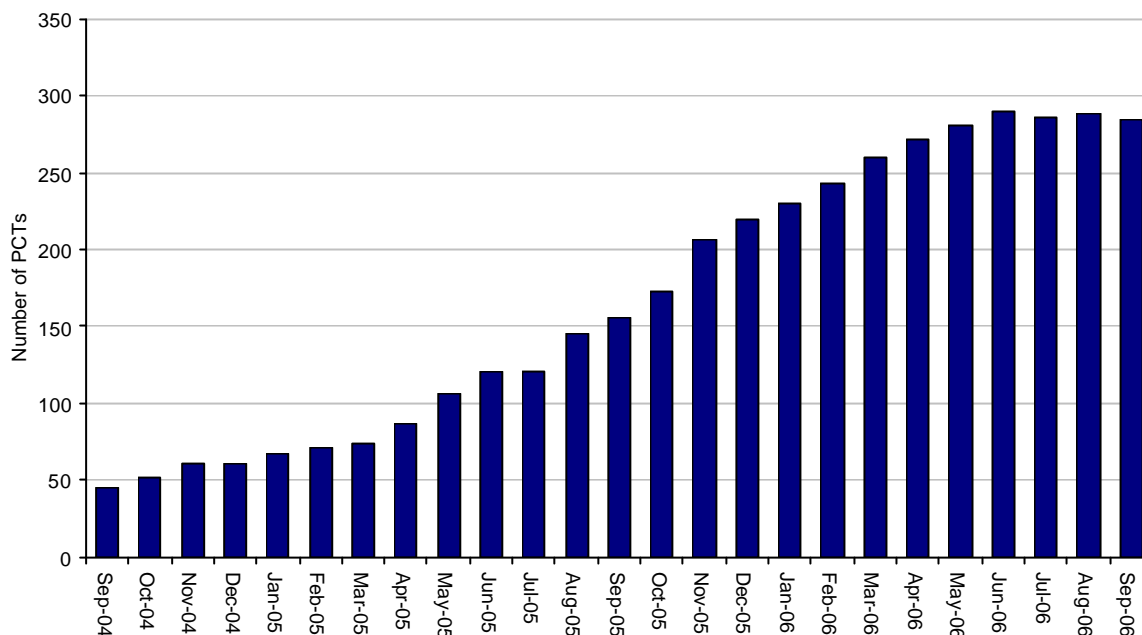


### 2.3 Growth in Repeat Dispensing

Repeat dispensing is now an essential service that should be provided by all pharmacies that hold a national pharmacy contract. Figure 7 shows the increase in repeat dispensing items between September 2004 and September 2006 (512,614 items). Bristol North PCT continues to have the highest rate of repeat dispensing of all prescriptions at 19.6% (a 2.3% increase on the quarter to June 2006) compared to 0.8% at the national level. The rapid uptake of repeat dispensing in Bristol North is most likely due to a prescribing incentive scheme

for GP practices to earn a share of £27,500 to improve the quality of repeat dispensing.

Figure 8: Primary Care Trusts with Repeat Dispensing Items



Repeat dispensing has rolled out at a slower rate across the rest of the country than initially predicted. The number of PCTs submitting repeat dispensing items each month has increased substantially since the beginning of the pilot (figure 8), however latest figures show that repeat dispensing forms were received from 288 of the 303 PCTs in the quarter to September 2006 showing a slight decrease on figures from last quarter (from 290 in quarter to June 2006). In the majority of PCTs repeat dispensing activity is low. In the quarter to September 2006 198 PCTs have an activity level of less than 0.5% of all items being supplied on repeat forms (table 2).

It is unlikely that the number of items dispensed on repeat forms will increase substantially in 2006/07 unless PCTs actively promote the service to GP practices. Repeat dispensing activity as at March 2006 has been used to project possible uptake of the service at March 2007 (table 2). If repeat dispensing activity reaches this level, items would increase by 0.5% in 2006/07 (around 4 million additional items).



**Table 2: Uptake of Repeat Dispensing in Sept 2006 and Projected Uptake for 2006/07**

<b>% Repeat Dispensing Items of Total</b>	<b>Number of PCTs in Sept 2006</b>	<b>Projected Number of PCTs in March 2007</b>
>20%	0	1
15% to 20%	1	3
10% to 15%	0	1
5% to 10%	6	4
4% to 5%	0	4
3% to 4%	11	4
2% to 3%	16	20
1 to 2%	35	34
0.5 to 1%	36	232
< 0.5%	198	0

## 2.4 Forecast of Growth in Volume for 2006/07

The underlying trend in growth in prescription items is currently between 5% and 6% per annum. It is unlikely that current NHS policies will substantially alter this figure. Growth will be maintained by the NICE guidance for prescribing of statins and by the Quality and Outcomes Framework of the GMS contract. Uptake of the repeat dispensing service is expected to increase in 2006/07 due to more patients receiving repeat forms in practices already participating in the service and because more practices will participate. However the rate of uptake of the service is not anticipated to increase markedly. Based on the current level of participation in PCTs, repeat dispensing is unlikely to increase prescription volume by more than 0.5%. Prescription items are therefore expected to grow at around 5.5% in 2006/07.

## 2.5 Growth in Cost in Individual Therapeutic Areas

**Table 3: Cost of the Top Six Therapeutic Areas based on Volume.**

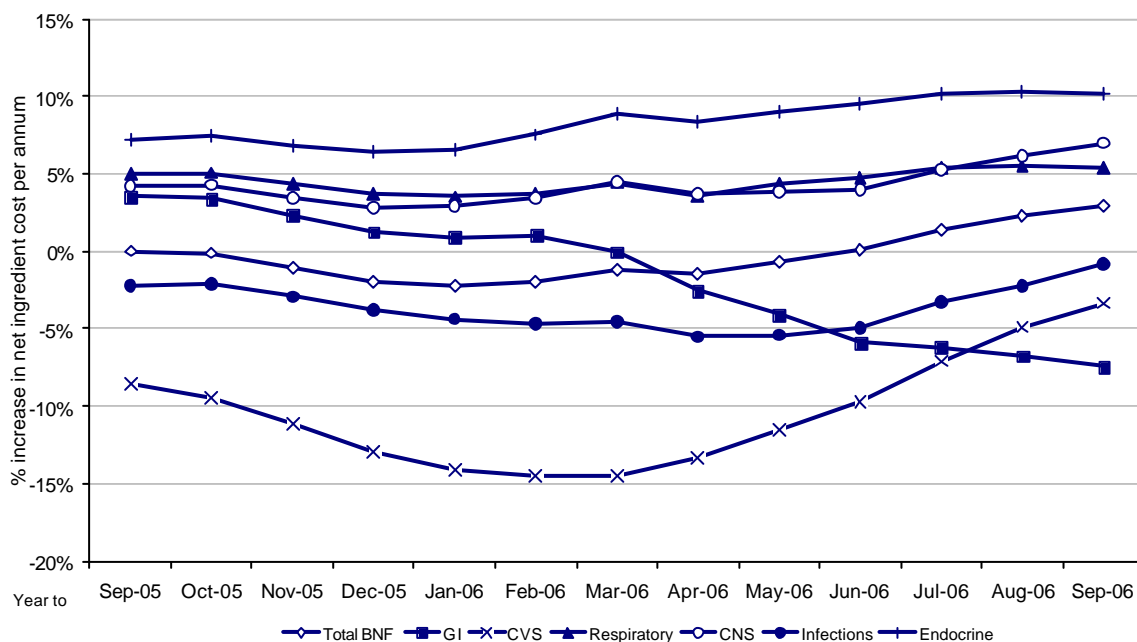
Therapeutic Area	Cost (£ Millions)		
	Year to Sept 2005	Year to Sept 2006	% difference
Cardiovascular system	1949.07	1884.28	-3.3
Central nervous system	1408.06	1506.36	7.0
Endocrine system	800.71	881.93	10.1
Respiratory system	790.25	832.51	5.3
Gastro-intestinal system	655.70	606.89	-7.4
Infections	222.19	220.31	-0.8
All others	1962.42	2088.08	6.4
<b>Total</b>	<b>7788.40</b>	<b>8020.37</b>	<b>3.0</b>

The Department of Health's policies to control drug prices (the generic prices review and the renegotiated PPRS) have had a major impact on the drugs bill (table 3). Figure 9 shows the change in the rate of growth per annum for cost between September 2005 and September 2006 for the top six therapeutic areas based on volume. Cost for gastro-intestinal system drugs has decreased the most (-7.4%) whilst volume has increased over the same time period (+4.7%). The greatest growth in volume was in relation to cardiovascular system drugs (+7.7%), however cost has decreased by 3.3%.

The cost for drugs for the endocrine system has increased the most of the top six therapeutic areas. The area seeing the greatest difference is drugs for diabetes, in particular the prescribing costs of metformin and rosiglitazone for the treatment of type 2 diabetes that account for nearly 50% of the increase in cost in the year to September 2006. The prices of these drugs have not changed significantly over the time period; therefore such a large increase is most likely due to increasing prescription volume due to the increasing number of patients diagnosed with diabetes. Since 1996 the number of people diagnosed with diabetes has increased from 1.4 million to 1.8 million. By the end of this decade it is estimated that the number could increase to 3 million.

From 1<sup>st</sup> April 2005 the DH reduced the Drug Tariff price of drugs which are readily available by introducing Category M. This released £300 million in 2005/06 towards funding the new national pharmacy contract. The prices of drugs in Category M are reviewed quarterly and price changes are introduced when appropriate. This mechanism helps to maintain the downwards pressure on the drugs bill. Price reductions in category M drugs are planned from October 2006 with the purpose of reducing the drugs bill by a further £150 million over a six month period.

Figure 9: Change in Rate of Growth of Cost for Top 6 Therapeutic Areas



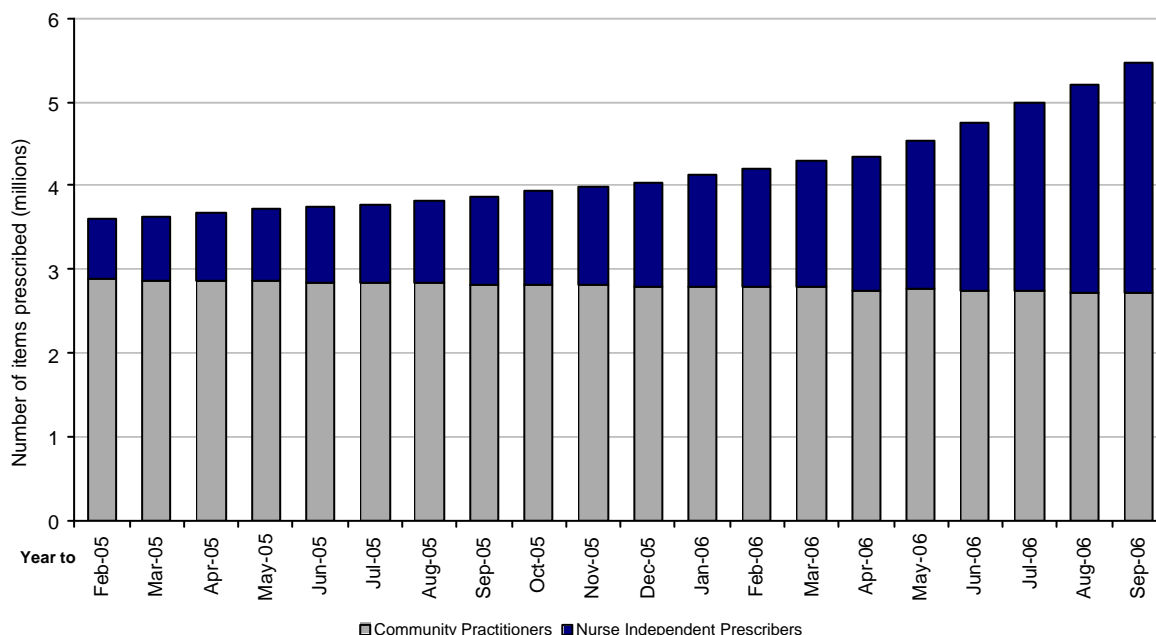
In 2005 the DH consulted on the arrangements for the provision of dressings, incontinence appliances, stoma appliances, chemical reagents and other appliances to primary and secondary care. A further consultation opened in July 2006 detailing proposals for a reconfiguration of the services provided to ensure equity, consistency and quality in the provision of those appliances. The consultation also proposes changes to the listing structure of stoma and incontinence appliances, and catheters in the Drug Tariff to inform users which products are functionally equivalent and to allow easier comparison of prices. The consultations regarding dressings and chemical reagents have now ended and resulted in reimbursement prices being reduced by 8% and 12% respectively, on all affected products from 1<sup>st</sup> October 2006. A further consultation started in November 2006 to discuss the suitability of the Drug Tariff reimbursement prices for stoma and incontinence appliances to ensure that the NHS is receiving value-for-money.

The DH policies to control prices of generic drugs and appliances aim to hold back the growth in the drugs bill that would otherwise be seen from the increase in volume of prescriptions and the introduction of new more expensive products.

### 3. FACTORS AFFECTING COMPLEXITY OF PRESCRIPTION PROCESSING

#### 3.1 Non-Medical Prescribers

Figure 10: Trend in Nurse Prescribing (rolling 12 month)

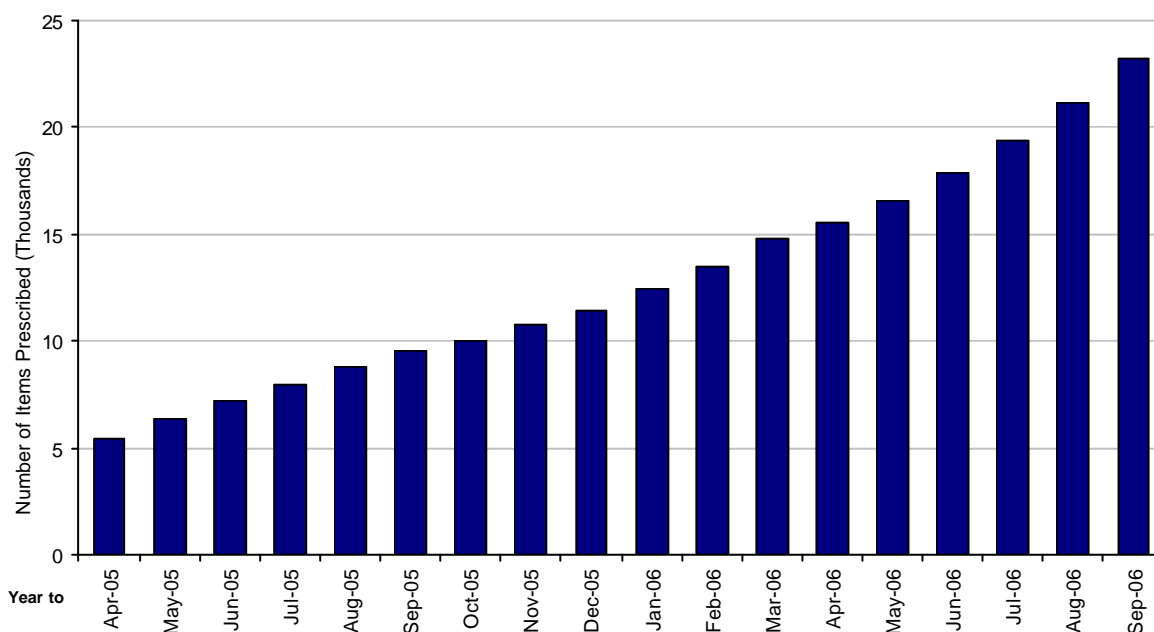


From 1<sup>st</sup> May 2006, the nurse prescribers extended formulary was discontinued and qualified nurse independent prescribers (formerly known as extended formulary nurse prescribers) are now able to prescribe any licensed medicine for

any medical condition within their competence, including some controlled drugs. As at 6<sup>th</sup> November 2006 there are over 6,100 nurse independent prescribers and 22,600 community practitioners on the NHSBSA PPD database of prescribers. The number of community practitioners has slightly decreased on the figure reported last quarter since all PCTs were contacted to provide information in relation to their nurses due to the reconfiguration of PCTs that took place from 1<sup>st</sup> October 2006. This resulted in some out of date information being amended or deleted.

Figure 10 shows the total number of items prescribed by community practitioners and nurse independent prescribers. This shows that the volume of items from nurse independent prescribers is an increasing proportion of total nurse prescribing (63%, September 2006). Overall prescribing by nurses continues to increase, the year to September 2006 observed a 40.8% increase compared to the same period of the previous year.

Figure 11: Trend in Pharmacy Prescribing (rolling 12 months)



The NHSBSA PPD database of prescribers now contains the details of 343 pharmacist supplementary prescribers. In the year to September 2006, the NHSBSA PPD received 23,217 items for processing from pharmacist supplementary prescribers (figure 11). This is an increase of over 140% on the year to September 2005. Pharmacy prescriptions have been received from only 91 PCTs in the year to September 2006. In fact, 20% of pharmacy prescribing is received from only two PCTs; Wyre (10.3%) and Walsall Teaching (10.0%).

Regulations were introduced on 1<sup>st</sup> May 2006 that allow pharmacists to independently prescribe any licensed medicine for any medical condition that a pharmacist prescriber is competent to treat, with the exception of controlled drugs and unlicensed medicines. The Royal Pharmaceutical Society of Great Britain (RPSGB) has now approved the curriculum of the training programme for

pharmacists and it is intended that the first courses from Higher Education Institutes (HEIs) will be available from late 2006.

Parliamentary approval for amendments to medicines legislation and NHS regulations was given in May 2005 to allow more health professionals to prescribe medicines as supplementary prescribers in partnership with a doctor. From July 2006 chiropodists/podiatrists, physiotherapists, radiographers and optometrists are also able to prescribe controlled drugs as supplementary prescribers, but only where there is a patient need and the doctor has agreed. The NHSBSA PPD currently has 7 physiotherapists and 1 podiatrist registered on the database. The first prescriptions from 'other' health professionals were received in August 2006 and in the quarter to September 2006, 26 prescriptions were received from physiotherapists.

The non-medical prescriber initiative has the potential to increase prescription volume however the DH anticipates that it will replace existing prescribing and take pressure off GPs by allowing them to focus on more complex cases thereby improving the availability of care for patients.

### **3.2 Safer Management of Controlled Drugs**

The Shipman Inquiry was set up in January 2001, following the conviction of Harold Shipman for the murder of 15 of his patients. The Inquiry was tasked with investigating the extent of Shipman's activities, enquiring into the activities of the statutory authorities and other organisations involved, and making recommendations on the steps needed to protect patients for the future.

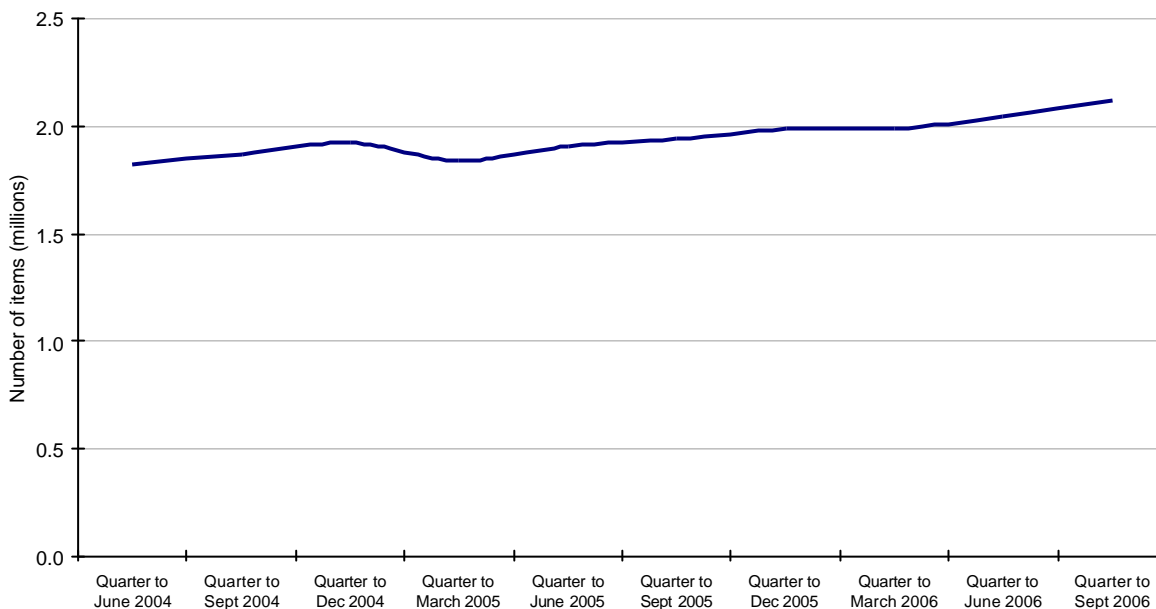
The Fourth Report, The Regulation of Controlled Drugs in the Community was published on 14 July 2004 and is concerned with the systems for ensuring the safe and appropriate use of controlled drugs whilst ensuring patients can easily access the treatment they need. The following sections examine the prescribing of controlled drugs both on the NHS FP10 and private prescriptions.

Figure 12 shows the trend of total schedule 2 and 3 prescribed Controlled Drugs on NHS FP10 forms. A reduction in prescribing is apparent in Quarter 4 of financial year 2004/05 which is not unexpected since the timing coincides with the publication of the fourth report of the Shipman Enquiry. However, the greatest decrease can be found in the Schedule 2 category, above all diamorphine saw the greatest decrease (approximately 15,223 items, -31.8%) followed by morphine (6,188 items, -3.2%) whilst prescribing of oxycodone increased (2,979 items, +5.0%). Similarly, when examining schedule 2 injections in isolation a significant decrease is seen in the prescribing of diamorphine (7,563 items, -31.9%), however, the prescribing of morphine has increased (942 items, +39.0%). Over recent months increases have been seen in the prescribing of diamorphine although it still continues to be lower than levels prior to the Shipman Enquiry.

The Misuse of Drugs Regulations were amended 12<sup>th</sup> June 2006 and came into effect 7<sup>th</sup> July 2006 so that copies of private prescriptions for Schedule 2 and 3

controlled drugs dispensed in community pharmacies should be submitted to the NHSBSA PPD each month. As at 6<sup>th</sup> November 2006 there are over 2,400 private prescribers (including 1 private nurse) on the NHSBSA PPD database of prescribers.

Figure 12: Total controlled drugs (NHS FP10 prescribing)



In the quarter to September 2006, 8,976 private prescriptions were received, all from doctors. PCTs are able to monitor prescribing of controlled drugs by private prescribers using ePACT.net.

Table 4: Private Prescribing by Drug

Drug	Items	
	Quarter to Sept 2006	proportion
Methadone	5,070	56.5%
Dexamfetamine	1,706	19.0%
Temazepam	677	7.5%
Morphine	553	6.2%
Buprenorphine	305	3.4%
Methylphenidate	251	2.8%
All Others	414	4.6%
<b>Total</b>	<b>8,976</b>	<b>100%</b>

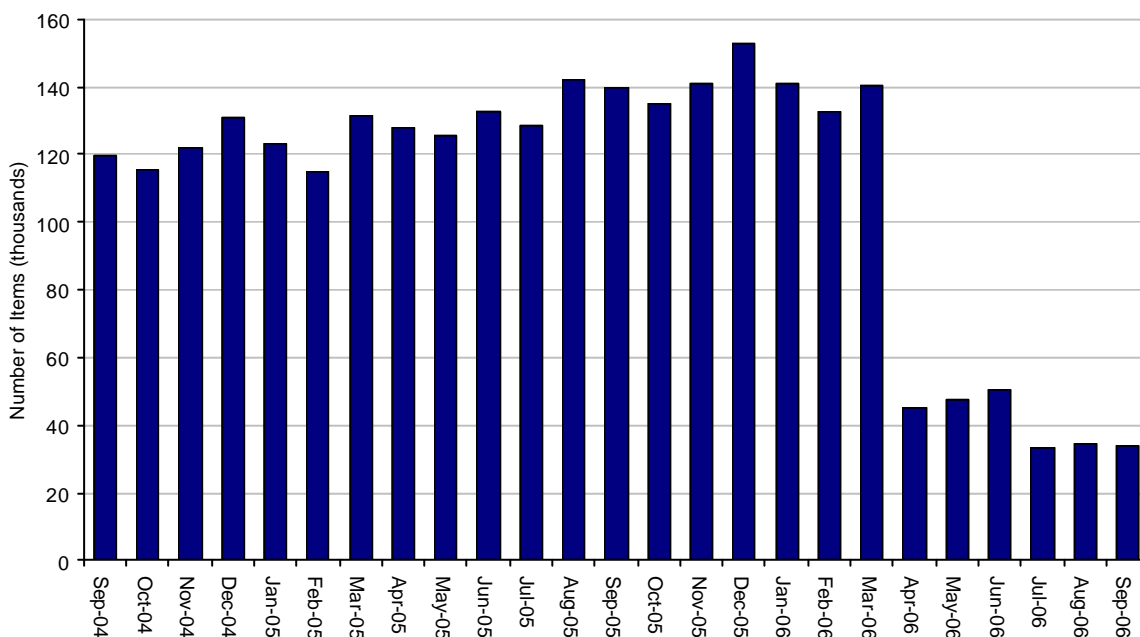
Of the 8,976 prescriptions received this quarter the majority are analgesics/drugs for substance dependence (70.2%). Table 4 shows the top six

chemical substances privately prescribed. The greater proportion of private prescribing is for methadone that can fall into both the analgesic and drugs for substance misuse categories and makes up 56.5% of all private prescribing in the quarter to September 2006; considering this it appears that the majority of private prescribing could be drug addiction related.

### 3.4 Local Pharmaceutical Services

Local pharmaceutical services (LPS) were introduced as pilot schemes to make greater use of pharmacists' skills. Regulations for LPS Permanence came into force on 1<sup>st</sup> April 2006. From this date, PCTs set their own timetables for developing and commissioning LPS schemes and no longer require prior approval from the Secretary of State for Health to enter into LPS contracts. Under the LPS scheme, pharmacists take on extra responsibilities in addition to dispensing. This provides opportunities to develop local arrangements which address local priorities and meet local needs.

Figure 13: Items Dispensed through Local Pharmaceutical Services



Contracts for LPS are held between PCTs and LPS providers. Some contracts concentrate purely on pharmaceutical services whereas others use the flexibility of LPS to provide a broader range of services such as diagnostic testing, therapeutic monitoring or provision of training and education. Figure 13 shows the number of items dispensed through LPS schemes since March 2004. Last quarter it was reported that the number of items dispensed through LPS schemes significantly dropped due to Central Manchester PCT terminating all 12 LPS contracts at the end of March 2006 because the medicines management services they piloted under LPS are covered by the new national pharmacy contract. In the quarter to September 2006, figures have decreased again and can be attributed to both Northumberland Care Trust and Northamptonshire

Heartlands PCTs terminating their contracts into the Local Pharmaceutical Scheme.

The number of LPS contracts will be maintained due to replacement contracts from the Essential Small Pharmacy Scheme (ESPS); however prescription volume will fall. A Standard Form LPS has been developed for service provision after 1<sup>st</sup> April 2006 for pharmacies meeting similar criteria to the previous ESPS provisions. Pharmacies transferring to the new arrangements hold an ESPLPS contract.

**Lynn Horner, Specialist Statistical Analyst**

**23<sup>rd</sup> November 2006**