4 Pharmaceutical business information services

Contents

Introduction

4.1. IMS and PMSI supply a variety of market research and business information services to pharmaceutical manufacturers and others relating to the distribution and sales of pharmaceutical

products. The main object of this chapter is to describe these market research and information services. To set them in context the chapter begins by providing a brief description of the industry in which the information service providers find their principal customers, that is, the pharmaceutical manufacturing industry, and of the sectors or groups providing their main data sources: pharmaceutical wholesaling and retailing, hospitals and GPs. The chapter also includes brief sections on the requirements governing the licensing and marketing of medicines in the UK and on the regulation of prescribing. Throughout this chapter UK sales by Source UK are treated as sales by PMSI.

The UK pharmaceutical manufacturing and distribution industries

General

4.2. A description of the size, structure and organization of the pharmaceutical retailing and wholesaling industries was contained in the MMC's report on the proposed mergers between UniChem PLC and Lloyds Chemists plc and between GEHE AG and Lloyds Chemists plc (the Lloyds report).[1] UK sales of pharmaceuticals were estimated to have amounted to some £6,400 million in 1995. Of these, around 81 per cent (by value) were prescription medicines (known as ethicals, which can be either branded or generic) and 19 per cent were OTC medicines. Generic ethicals have a much lower average value than branded ethicals, so although over half of all prescriptions are written generically, the MMC estimated the market to break down as shown in Table 4.1.

TABLE 4.1 **Total UK sales of pharmaceuticals by product category, 1995**

	£m	*%*
Branded ethical products	4,355	68.5
Generic ethical products	770	12.1
OTC medicines	1,233	19.4
	6,358	100.0

Source: MMC estimates based on UniChem PLC information.

4.3. OTC medicines also fall into two groups for retail purposes: General Sales List (GSL) medicines, which can be sold in any type of retail outlet, and pharmacy-only or 'P' medicines, which can be retailed only at a pharmacy under the supervision of a pharmacist.

4.4. More recent data on the same basis are not available, but published figures for UK manufacturers' sales of pharmaceutical preparations (a category which includes medicines though going rather wider) since 1995 are as shown in Table 4.2.

TABLE 4.2 **UK manufacturers' sales of pharmaceutical preparations**

Year	*£bn*
1995	5.8
1996	6.0
1997	5.8

Source: Office for National Statistics: Monthly Digest of Statistics.

4.5. At the manufacturer level generic ethicals are mostly subject to keen price competition, but the pricing of branded ethicals is regulated through a voluntary scheme, the Pharmaceutical Price Regulation Scheme (PPRS), negotiated between the DH and the Association of the British Pharmaceutical Industry. At the retail level competition is muted. As a result of a decision by the Restrictive Practices Court manufacturers are themselves able to set the retail prices of OTC medicines, though the DGFT has sought leave to challenge resale price maintenance on medicines in the Restrictive Practices Court. As for prescribed drugs paid for by the NHS, pharmacies are

[1] *UniChem PLC/Lloyds Chemists plc and GEHE AG/Lloyds Chemists plc: a report on the proposed mergers*, HMSO, Cm 3344, July 1996.

reimbursed by the NHS for the cost of drugs dispensed, on the basis of the Drug Tariff or suppliers' list prices less assumed levels of discount (known as the discount recovery or clawback). An annual discount inquiry is carried out jointly by the DH and the Pharmaceutical Services Negotiating Committee, an industry representative body which represents retail pharmacies providing NHS services, to set the levels of discount to be applied.

4.6. The MMC estimated that in 1995 about 81 per cent of ethicals were dispensed by retail pharmacies, 4 per cent by GPs and 15 per cent through hospitals. Of OTC medicines, some 65 per cent were sold through retail pharmacies and the remainder through other kinds of outlet.

The pharmaceutical manufacturing industry

4.7. The pharmaceutical manufacturing industry comprises over 200 companies, including a substantial number of multinationals. Staff directly employed by drug companies in the UK amount to around 75,000. In 1996 the UK industry spent just over £2 billion on R&D (including funding for university-based projects and research within the NHS, as well as on in-house R&D). The UK industry spent around £270 million in 1997 in promoting its products (mainly to prescribers), and employed at least 6,000 sales representatives (around one for every five to six GPs). Clients for the various information services supplied in the UK by IMS, PMSI and others are drawn from a wide field, including the following major pharmaceutical companies (as well as many smaller ones): Abbott, Astra, Bayer, Boehringer Ingelheim, Bristol Myers Squibb, DuPont Pharma, Glaxo Wellcome, Janssen-Cilag, Hoechst Marion Roussel, Eli Lilly, Lorex, Medeva, Merck Pharmaceuticals, Norton Healthcare, Novartis Pharmaceuticals UK, Parke Davis, Pharmacia & Upjohn, Reckitt & Colman, Rhône-Poulenc Rorer, Roche, Sanofi Winthrop, Searle, Schering AG, SmithKline Beecham Pharmaceuticals UK, Smith & Nephew Healthcare, Warner Lambert, Wyeth, Zeneca Pharmaceuticals.

Wholesaling

4.8. Pharmaceutical products reach retail outlets either via a pharmaceutical wholesaler or by direct supply from manufacturers. In 1995 full-line wholesalers, stocking a large number of lines (from 4,000 to over 11,000) and providing a twice-daily delivery in most areas, supplied nearly 80 per cent of the requirements (by value) of retail pharmacies (excluding The Boots Company PLC (Boots)), and over 90 per cent of the requirements of prescribing GPs. However, they supplied only about 35 per cent of the requirements of hospitals, most of whose purchases came direct from manufacturers or via NHS central purchasing arrangements. The remaining purchases of retail pharmacies were obtained either from manufacturers direct or from short-line wholesalers. The latter concentrate on a much smaller number of fast-moving ethical (mainly generic) lines and OTC medicines, which they deliver less frequently and on which they can offer lower prices than full-line wholesalers (because of lower costs). Boots, unlike other companies with retail chains, hardly uses external wholesalers at all but buys its supplies directly from manufacturers and distributes them to its retail outlets itself. (Nor does it wholesale to others.)

4.9. Some 19 full-line wholesalers were active in the UK in 1995. Of these, AAH plc (AAH) and UniChem PLC provided coverage in all parts of the UK and Lloyds provided near-national coverage. The remainder, known as 'regionals', operated across more limited territories, within range of their depots. The sales of full-line wholesalers were as shown in Table 4.3.

TABLE 4.3 **National shares of full-line ethical pharmaceutical sales by full-line wholesalers, 1995**

	Total sales		*Total sales excluding sales to hospitals*		*Total sales excluding sales to hospitals and own outlets**	
	£m	*%*	*£m*	*%*	*£m*	*%*
AAH	1,184	35	997	32	866	34
UniChem	1,224	36	1,156	37	984	39
Lloyds	429	13	428	14	177	7
Regionals	541	16	534	17	508	20
	3,378	100	3,115	100	2,535	100

Source: MMC estimates and UniChem/Macarthy/Lloyds report†.

*Many full-line wholesalers also own retail chains which they self-supply.

†*UniChem PLC/Macarthy PLC and Lloyds Chemists plc/Macarthy PLC: a report on the proposed mergers*, HMSO, Cm 1845, February 1992.

Since 1995 there has been some further concentration in the industry, including the acquisition of Lloyds by GEHE AG, parent company of AAH (subject to undertakings to divest the Lloyds wholesaling businesses carried on from seven depots).

4.10. All of the UK full-line wholesalers (currently numbering 17 following a recent merger) are members of the BAPW. Short-line wholesalers, of which there is a large and constantly varying number, do not meet the BAPW's criteria for membership.

Retailing

4.11. There were about 12,250 retail pharmacies in the UK in 1995, nearly all of which were on statutory lists maintained by the Health Authorities in England and Wales and equivalent authorities in Scotland and Northern Ireland. Being on one of these lists enables a pharmacy to receive payment for dispensing NHS prescriptions. Their total turnover in 1994 was £8,699 million, of which almost exactly 50 per cent was NHS receipts (a proportion which rises to 70 per cent if Boots is excluded, since Boots has a much higher proportion of OTC sales than most others). The proportion of NHS sales in retail pharmacy turnover has been rising during the 1990s, partly because of an increase in the NHS drugs bill and partly because of a loss of OTC business to supermarkets and drugstores. The Lloyds report found, however, that NHS business had tended to become less profitable.

4.12. There has been a long-term trend towards increased concentration in pharmacy ownership, with the proportion of pharmacies owned by chains of over 50 stores rising to 28 per cent by 1995. Nonetheless two-thirds of the total were still owned singly or in chains of fewer than six stores, as shown in Table 4.4.

TABLE 4.4 Retail pharmacy chains, 1995

	Number of outlets owned
Over 50 stores	
Boots	1,140
Lloyds	918
UniChem (Moss)	383
AAH (Hills)	351
National Co-op Chemists	227
Other Co-op Chemists	143
Tesco	111
Safeway	69
Rowland	56
Peel Street Pharmacy	50
	3,448
Other	
Paydens	38
Dudley Taylor	35
Gorgemead	27
6–20 stores (27 companies)	428
1 to 5 stores	8,275
Total	12,251

Source: MMC based on Verdict and company information.

4.13. Boots, with some 9 per cent of retail outlets by number, accounted in 1994 for about 38 per cent of the value of sales from retail pharmacies, and for some 12.6 per cent of national sales of ethical medicines. Lloyds accounted for 6 per cent of total pharmacy sales and 7.8 per cent of national ethical sales. As already noted, there was a considerable degree of vertical integration between retailing and wholesaling, with some 1,820 pharmacies owned by full-line wholesalers, or 15 per cent of the total (24 per cent if Boots' pharmacies are added to this). This concentration has since increased with the acquisition of the Lloyds pharmacies by GEHE, making AAH (GEHE's subsidiary) second to Boots in terms of value of sales.

4.14. An increasing number of supermarkets now contain pharmacies (either their own or franchised). The MMC estimated the number to have been around 470 in 1994.

Authorization of medicines in the UK

4.15. In order to manufacture a drug in the UK a manufacturer requires a licence under the Medicines Act 1968. If a drug is then to be placed on the market in the UK or distributed wholesale, a marketing authorization is needed, issued either under the relevant UK regulations or by the European Commission. The licensing authority in the UK (also responsible for marketing authorizations) is a body consisting of the Secretaries of State with responsibility for health in England, Wales and Scotland and the Minister of Health and Social Services for Northern Ireland. The authority's functions are in practice exercised by the UK's Medicines Control Agency (MCA). An application to the MCA, if successful, results in an authorization from the UK licensing authority to sell the product in the UK. In Europe the equivalent is the European Medicines Evaluation Agency (EMEA). A successful application to the EMEA leads to a marketing authorization from the European Commission which is valid throughout the EU. Authorizations granted in the UK through the MCA can be extended to other countries of the EU by mutual recognition procedures.

4.16. Promotion of medicines to the public and to the medical profession is closely controlled by legislation. In particular, any promotional claims for a medicine made by the manufacturer have to be consistent with the terms of the marketing authorization. In support of this requirement manufacturers have to provide prescribers and pharmacists with information about each of their medicines in a form known as the Summary of Product Characteristics (SPC). An SPC describes, among other things, the product's names (branded and generic), composition (formulation), licensed uses, correct dosage for different age groups, side-effects, precautions, warnings and information about interactions with other drugs, and storage conditions and shelf-life.

4.17. OTC medicines may be advertised to the public. Prescription medicines may in general not be so advertised.

Prescribing physicians and the regulation of prescribing in the UK

4.18. There are about 36,000 GPs in the UK, of whom just over 29,000 practise in England. GPs account for around 80 per cent of the amount spent on prescription medicines by the NHS, the remaining 20 per cent arising from hospital and other use.

4.19. Medical practitioners have considerable clinical freedom about what they may prescribe and are exempt from many of the constraints placed on drug companies. They may, for example, prescribe unlicensed medicines, prescribe licensed medicines for uses outside the recommendations in the SPC, override warnings given in the SPC, ask pharmacists to dispense the unlicensed medicines they may prescribe, and use unlicensed medicines as part of a clinical trial.

4.20. Despite the clinical freedom referred to above, GPs are in practice subject to a number of pressures and constraints relating to what they may or should prescribe, particularly within the NHS. First, they are prohibited under their terms of service from prescribing products set out in regulations. These are mainly products which are more expensive than others which meet the same clinical need. Further, the DH spends about £5 million a year on providing prescribers with information specifically about medicines. This includes paying for publication and free distribution to medical practitioners and pharmacists of the *British National Formulary* (*BNF*). The *BNF* is a reference document appearing every six months, and containing advice on the use, indications, side-effects, warnings, contra-indications etc of over 4,000 products available for prescription in the UK. The DH also funds distribution of the monthly *Drugs and Therapeutics Bulletin*, a critical and impartial review of medical and other treatments published by the Consumers' Association. Other regular bulletins whose publication and distribution are funded in whole or in part by the DH are *Effective Health Care*, *Effectiveness Matters*, *MeReC Bulletin* (produced by the National Prescribing Centre (NPC)), and *Prescribers' Journal*.

4.21. The NPC was formed by the NHS Executive in April 1996, and in addition to its publications provides training and advice in a variety of forms. The DH has been conducting trials of a computer program known as PRODIGY, intended to be provided to all GPs and offering them a prescribing support system. The Government has recently decided that a first release of PRODIGY can be made available to GPs. There will be a continuing programme of updating the clinical recommendations, and a programme of education for the users of PRODIGY. A further research phase will look at extending the recommendations to improve the system's effectiveness in the management of chronic disease. Finally, the DH has recently announced the launch of the National Institute of Clinical Excellence (NICE), to be established in early 1999 as a Special Health Authority accountable to the Secretary of State for Health. The NICE will have wide objectives of improving overall national standards of clinical care, reducing unacceptable variations in clinical practice, and ensuring best use of resources so that patients receive maximum benefit. Its aim will be to provide a single, co-ordinated national focus for appraisal of new and existing treatments, and to produce authoritative national guidance which will be implemented consistently across the NHS. This is likely to include advice on the clinical and cost effectiveness of alternative treatments, including pharmaceutical preparations.

4.22. It is envisaged that the NICE will eventually take over the funding, commissioning and oversight of a range of functions currently undertaken by the DH and bring these together, including:

— the NPC appraisals and bulletins;

— the clinical guidance contained in PRODIGY;

— the National Centre for Clinical Audit;

— the *Prescriber's Journal*;

— the DH-funded National Guidelines Programme and Professional Audit Programme; and

— Effectiveness bulletins.

Pharmaceutical business information services

4.23. Pharmaceutical manufacturers need market information for a variety of purposes. We use the term 'pharmaceutical business information services' to refer to information on pharmaceutical products that is supplied to pharmaceutical manufacturers by companies such as IMS and PMSI. Such business information services are clearly to be distinguished from information supplied to doctors, whether through NHS channels (as described in paragraphs 4.20 to 4.22) or by the pharmaceutical manufacturers themselves. For example, continuous data on total national sales of all products is needed for a market overview, strategic planning, and decisions about what new products to develop. Comprehensive information about sales of a manufacturer's own and competing products at sales territory level are needed for monitoring the performance of sales forces and determining their remuneration. Information is also useful for improving the targeting and effectiveness of marketing campaigns. Decisions on the choice and amount of drugs to be prescribed to patients are taken by hospital doctors and GPs. Pharmaceutical manufacturers therefore need to focus their marketing efforts in relation to prescription drugs predominantly on doctors, rather than on the wholesalers and retailers who actually distribute the products (though marketing activity is also undertaken in order to influence the choice of drug made by pharmacists to meet a prescription written generically). To do this effectively they require detailed information about what drugs individual doctors prescribe, and about their prescribing attitudes and practice.

4.24. From the information supplied to us we have identified 13 categories of business information which manufacturers of pharmaceutical products use to enable them to plan and run their businesses efficiently. The services offered by the market information providers are tailored to specific needs, and in general a service provided for one purpose is unlikely to be directly relevant to another, although some services complement each other.

4.25. Some of these services involve the provision of regular statistics to enable a given aspect of the pharmaceutical market to be monitored over time. This type of service is often referred to as continuous or longitudinal research. Other services are carried out on a one-off basis. Some research provides quantitative, other qualitative, non-statistical information. Another way of classifying the information is by the origin of the data. There are three broad types of data: wholesale data (that is, information collected from pharmaceutical and veterinary wholesalers and manufacturers about their sales of pharmaceutical products to retailers), prescription data (that is, information collected from pharmacies about the prescriptions they dispense), and ad hoc or special surveys (mainly involving the collection of data from panels of GPs, either by questionnaire or via their practice management software). Wholesale data on OTC sales is supplemented by data collected from electronic point of sale (EPOS) machines. In several cases services designed for different categories of use are derived from a common supply of data, even though different databases may be created from this supply of data for producing and delivering the services.

4.26. The services supplied to meet the 13 categories of business information required by pharmaceutical manufacturers are listed below. For ease of exposition they have been divided into three groups according to the type of source material as described in the previous paragraph. A breakdown of the 13 categories is as follows:

(a) services based mainly on data collected from pharmaceutical wholesalers:

(i) national sales audits;

(ii) OTC retail audits;

(iii) STRs; and

(iv) veterinary audits;

(b) services based on data collected from retail pharmacists:

(i) prescription audits;

(ii) GP-level prescription data services; and

(iii) micromarketing services; and

(c) services based on data obtained from other sources, for example doctors and hospitals:

(i) medical audits;

(ii) hospital audits;

(iii) promotional audits;

(iv) national primary research;

(v) prescriber profiling; and

(vi) other profiling.

This division by source of data does not hold good in all cases. In particular OTC audits comprise various services based on both wholesale and retail data.

4.27. In addition to the above-mentioned services, IMS and PMSI supply services or products in certain other related markets: pharmacy software, directory and data publishing, healthcare management, and ETMS. IMS also has a product called MIDAS. This does not itself involve the collection of data, but provides a framework in which NSA-type data of more than one country can be presented on a consistent basis (that is, corrected for national differences such as local brand names), and viewed comparatively. This is mainly for the use of the head office staff of international pharmaceutical companies, wherever their headquarters happen to be located. It is not marketed as a national-level service.

4.28. Details of sales and company shares in the various sectors of pharmaceutical business information services and in related areas are shown in Table 4.5. For pharmaceutical business information in general, IMS's share in 1997 was some 37.3 per cent before the merger, and as a result of the merger has increased to 46.5 per cent. (These percentages include the hospital audits sold by Medicare, a company in which IMS has a 50 per cent shareholding, with those of IMS. Without the sales of Medicare IMS's pre-merger share was 32.2 per cent and the post-merger share was 41.0 per cent.)

TABLE 4.5 **Sales and company shares by category of pharmaceutical business information service, 1997**

				IMS			*PMSI*			
Type of data source	*Service category*	*Description*	*Market £m*	*Name of service*	*UK sales £m*	*% share*	*Name of service*	*UK sales £m*	*% share*	*Competitors*
Information services based on wholesale data	National sales audits	Wholesale data of all sales, for trends, market share etc	3.3	*BPI*	3.3	100	-	-	-	None
	OTC audits	Wholesale and retail: use for trends, new products, etc	19.2	*OTC report/ Pharmatrend*	2.7	14	*OTC Adviser*	0.1	Negligible	IRI Infoscan, ACNielsen, TNS
	Sales territory reports	Full sales coverage; analysed territorially for monitoring sales force and fixing remuneration	12.7	*RSA*/*SD*A	11.9	94	*Source Dispenser*	0.8	6	None
	Veterinary audits	Sales to vets	0.9	*BVI*	0.9	100	-	-	-	None
Information services based on prescription data	Prescription audits	Sample of pharmacies: eg to observe prescribing patterns and trends in illnesses	1.7	*Xtrend National*	0.1	6	*Prescriber Regional Tracker/Prescription Audit*	0.3	18	TNS
	Micromarketing services	Prescriptions dispensed, analysed by pharmacy and GP group: targeting groups of GPs	Negligible	*Xtrend brick*	Negligible	-	*Micromarketer*	Negligible	-	None
	GP-level prescription data services	Prescriptions dispensed, analysed by pharmacy and by individual named GP	0.41	*Xtrend brick*	0.14 (see note)	34	*Prescriber*	0.27 (see note)	66	None
Services based on other data sources	Medical audits	Surveys of panels of doctors: diagnoses, prescribing practice, safety etc	2.5	*MDI/PCMD/ Mediplus*	1.2	48	-	-	-	Compufile/*GPRD* (ONS)
	Hospital audits	Sales to hospitals: monitoring success of sales campaigns	3.6	*HPA/DMD* (Medicare)	3.6 (see note)	100	-	-	-	None
	Promotional audits	Surveys of media and advertising expenditure: monitoring success of sales campaigns	2.6	*MPI/MPIMT*	0.4	15	-	-	-	CSN/MMS/ISIS/ CAM
	National primary research	Interviews on brand awareness and usage for product positioning etc	15.0	-	-	-	*Generator/ Moderator/ Operator*	2.8	19	TNS, OPCS and various
	Prescriber profiling	Questionnaires to GPs on prescribing behaviour: short-term marketing	1.5	-	Negligible	Negligible	*Prospect/ Scriptrac*	1.5	100	None
	Other profiling	Advertising database, advertising success, readership profiles	1.5	-	-	-	*MARS/Call Link/Mediator*	0.2	13	JICMARS/Ad-Monitor/PIN/TNS
Total sales of information services			**64.9**		**24.2**	**37.3**		**6.0**	**9.2**	
Other products	Pharmacy software	Stock handling, order management, prescription records	16.4	-	-	-	Mediphase	2.4	15	Various
	Data publishing	Hospital etc directories	1.2+	-	-	-	*CMA*	1.2	N/A	Various
	Healthcare Management		N/A	*WINBEDS/ CANPARE*	Nil (but see para 4.100)	-	-	-	-	
	ETMS	Software for managing and reporting on sales calls	17.0	*Precise/ Premiere* (Walsh)	2.5	15	-	-	-	Various
TOTAL, all the above			**99.5**		**26.7**	**26.8**	-	**9.6**	**9.6**	

Source: IMS/PMSI data, TNS, Compufile, ONS.

Note: Totals exclude direct marketing (where Walsh and IMS had £4 million to £5 million sales, 5 to 25 per cent share depending on definition), *Meditext* and MIDAS. Revenue from usage of MAXIMS and Dataview is included under the relevant product heading. Medicare sales of hospital audits also included. Pharmacy software market estimated as pro rata to share of pharmacies supplied. Sales of GP-level prescription data services by IMS and PMSI are their sales for January to June 1998. (These services were not launched until 1998 and there were no sales in 1997.)

Services based mainly on wholesale data

National sales audits

4.29. The first purpose for which pharmaceutical manufacturers need data is to monitor sales of their products nationally or regionally and compare them with sales of competing products. They may also wish to identify and monitor any trends in sales applicable to the therapeutic classes in which their products compete. Information services for this purpose are called NSAs. They are used for strategic decision-making purposes, for example product placement, product design, and pricing.

4.30. IMS is currently the only company supplying NSAs in the UK. IMS's main product is the *BPI*. The *BPI* is a monthly statistical record of the total sales of each pharmaceutical product to retailers by wholesalers and manufacturers and distribution by pharmacy chains to their shops, analysed by manufacturer, product type and pack size. Data are provided to clients on a monthly or weekly basis, and are available in paper, on-line and PC-based formats. Under the pricing arrangements which IMS has operated up to now an annual subscription to the *BPI* currently costs £27,976, with discounts to customers who do not require information on all Anatomical Therapy Classes (ATCs), of which there are several. IMS has, however, recently introduced a new pricing scheme for the *BPI* and certain other services known as 'Sunrise pricing'. Sunrise is described by IMS as a more flexible system, under which clients have greater freedom to choose how much data to buy, and do not (for example) have to purchase information on product categories in which they are not interested. Charging under Sunrise is described by IMS as complex. Under Sunrise customers are generally expected to take the *BPI* data in electronic form using one of the software products which IMS supplies for this purpose, such as Microlink, Partner or Dataview. (For more information about these products and the charging arrangements relating to them see paragraph 4.110.) Overall, we have been told that large data users are likely to pay somewhat more for a given amount of data than under the old arrangements, and smaller users less. Although IMS is encouraging use of Sunrise pricing, clients who wish to continue to be charged under the old arrangements are currently permitted to do so. Under Sunrise the basic price of a market overview report such as the *BPI* will be £25,000.

4.31. IMS also supplies a weekly service known as *Weekly Sales Monitor* (*WSM*), which can be provided at regional as well as national level. Charging for this is more complex, but, as an example, the charge to a *BPI* subscriber for a quarterly multi-product market report for sales in a given standard region under the traditional pricing arrangements is currently £4,355. The price of *BPI* rose 85 per cent overall between 1988 and 1998, compared with 54 per cent for the RPI, and 5.4 per cent between 1997 and 1998. IMS told us that these increases in the price of the *BPI* reflected cost increases brought about by continued efforts on its part to improve the service by collecting data from more sources and by improving the accuracy of the data supplied.

4.32. The data from which the *BPI* and *WSM* are compiled are collected from pharmaceutical wholesalers, retail pharmacy chains which act as wholesalers to their own shops, supermarkets, and manufacturers who deliver direct to retailers. Almost all this information is received by IMS in electronic format, for example magnetic tape, cassette, disc, ISDN link or modem link, though a small amount of data from independent pharmacies is sent in hard copy. The collected data represent around 97 per cent of total UK pharmaceutical sales at wholesale level. To cover the remaining 3 per cent (the sales of those distributors, including short-line wholesalers and parallel importers, who are not members of the BAPW and who do not supply data to IMS under a separate arrangement) IMS supplements the collected data with information on purchases by pharmacies collected from a pharmacy panel of around 500 shops.

4.33. In general, in this and other areas of data collection, IMS pays the providers of data for their information. In the financial year to June 1998 IMS paid wholesalers £[✂] million for data for use in all its services based on wholesale data, most of it to the three largest wholesaler/retailer chains.

4.34. IMS's sales of NSAs are as shown in Table 4.6.

TABLE 4.6 **Sales of NSAs, 1993 to 1998**

Year	*£m*
1993	3.1
1994	3.3
1995	3.7
1996	3.4
1997	3.3
1998 (Jan–June)	2.1

Source: IMS/PMSI data.

The 20 largest clients accounted for £1.5 million of its £3.3 million sales of NSAs in 1997.

4.35. The data for certain other services supplied by IMS (in particular its STRs—see paragraph 4.42 and following) are derived from the same database as that for the *BPI* and *WSM*, but from the demand perspective of the pharmaceutical company no other services are effective substitutes for NSAs.

OTC retail audits

4.36. OTC audits provide the same type of information as NSAs but limited to sales of those pharmaceutical products which may be bought without a prescription. Pharmaceutical manufacturers use them to assess general trends in OTC sales in order to determine the areas in which new products should be developed.

4.37. OTC services are supplied in the UK by IMS, PMSI, IRI, Nielsen and TNS. These services all serve broadly the same purpose, but differ somewhat in their coverage and in the source of data which may be either wholesale or retail level.

4.38. IMS supplies two OTC audit services:

(a) OTC Retail. This a monthly measure, introduced in 1991, of sales of all OTC products into retail pharmacies at national level. The data used are derived from the same database as is used for the *BPI*, ie data collected from wholesalers and manufacturers of their sales to pharmacies, and from certain large retail chains (such as Boots and the supermarkets) on the products they distribute to their shops. Under the old IMS pricing model, which applies to clients who have not opted for Sunrise pricing, there is a basic charge of £33,300 a year for data covering the whole of the UK, plus a variety of add-on charges relating to the formats in which the data is to be accessed or delivered.

(b) Pharmatrend. This service, launched in 1997, is based on sample sales of OTC and other general healthcare products out of retail pharmacies. Data are collected from a panel of retail pharmacists (via their EPOS equipment) and extrapolated to national level.

IMS's 20 largest customers for OTC audits accounted for £1.8 million of its £2.7 million sales of them in 1997.

4.39. PMSI supplies one service based on OTC data, called *OTC Adviser*. This delivers weekly data on sales by specific retail pharmacies, but subscribing companies can only receive information about their own products. The service is used by healthcare companies in monitoring sales uptake by pharmacies in direct response to television advertising and other promotional activity.

4.40. IRI offers a service called *InfoScan*, based on data collected from supermarkets, pharmacies and drugstores. It covers all the products sold in these stores but the focus is on OTC products. Nielsen sells a service called *Scantrack*, based on data collected from in-store pharmacies and supermarkets. Both *InfoScan* and *Scantrack* are used by market research companies to understand the market position of OTC products nationally. TNS sells two OTC-based services in the UK. *Super Panel* provides an estimate of OTC sales volumes by counting the products taken home by members of

a panel of households. *Prime* is a service based on data from a panel of 5,000 households which record details of the illnesses of their members and self-medication purchased.

4.41. Table 4.7 shows estimates by IMS and PMSI of UK sales of OTC audits from 1993 to 1998. It is based on their assessment that IMS accounted for 14 per cent of sales over this period, PMSI for 0.5 per cent, and their three competitors for 85 per cent between them.

TABLE 4.7 UK sales of OTC audits, 1993 to 1998

£ million

	IMS	*PMSI*	*IRI, Nielsen and TNS*	*Total*
1993	1.1	0.04	6.4	7.5
1994	1.3	0.05	7.7	9.1
1995	1.3	0.05	8.0	9.4
1996	2.3	0.08	13.8	16.2
1997	2.7	0.10	16.4	19.2
1998 (Jan–June)	2.0	0.07	12.1	14.3

Source: IMS/PMSI data.

Sales territory reports

4.42. STRs, like NSAs, provide an analysis of sales of pharmaceutical products to pharmacies by wholesalers, but with a much higher degree of territorial disaggregation than NSAs and a more limited coverage of products. STRs are used by pharmaceutical manufacturers primarily to monitor the performance of their sales representatives and to determine their remuneration. Sales are therefore broken down by region and sales territory. The number of regions and sales territories is defined by the individual client, each of which has different requirements. The number of regions per client ranges between about four and twelve, and the number of territories between about 30 and 120, although there are cases outside these limits. Some manufacturers run several field forces: in such cases each territory may have several representatives of that company operating within it, and the total number of its representatives may be considerably more than the number of territories. The *BPI*, in contrast, only shows sales aggregated to national level. Its weekly version (*WSM*) is available at regional level, but the regions are generally much larger than those used in STRs.

4.43. IMS's STR services are based on the same data as it uses to compile the *BPI* and *OTC Report*, that is census-level data collected from around 100 contributors, including the 17 full-line wholesaler members of the BAPW, retail chains (for example, Boots), manufacturers' distribution records, and short-line and other wholesalers and distributors outside the BAPW. These data are supplemented by data from a panel of pharmaceutical retailers spread across the country and intended to cover products sold by any part of the distribution chain not covered by the 97 per cent sample. At the national level, a master file, or national description file (NDF), is created, which is used to organize the raw sales data. The NDF contains details of all pharmaceutical products sold in the UK, listed by form, strength, pack size, product code, ATC classification, and manufacturer. The NDF is used to convert data collected by IMS into a standard form, which allows them to be used by IMS to produce its different services. The NDF is used to produce most of IMS's services.

4.44. IMS supplies two STR services: *Regional Sales Analysis (RSA)* and *Sales Distribution Analysis (SDA)*. *RSA* is derived from the census-level data IMS collects and reflects sales to retail pharmacies. It is available in a variety of formats (hard copy, on-line access, magnetic tape/disc/cassette format or a PC-based software facility). The reports are available around six to eight weeks after the data are collected. IMS's *SDA* service is a similar product based on wholesalers' data which it produces under licence from the BAPW. [*Details omitted. See note on page iv.*] Prices of STRs have increased relative to the RPI over time—see Appendix 4.1—although IMS said that the most significant price increase (in 1989) coincided with a significant increase in data made available. IMS told us that this improvement (a threefold increase in the level of geographic detail), and the resulting effect on prices, was discussed and agreed with clients in advance.

4.45. The charges for *RSA* are complex and depend on how much information is required. Under IMS's pricing arrangements for clients not opting for Sunrise pricing there is a basic charge of £1,394 a year per sales force, per territory, subject to a minimum basic charge, per sales force, of £40,401 a year (1998). Under Sunrise there is no requirement for a client to pay for each sales force or per territory. Instead the price is defined by the number of lines of data and the level of geographic detail required by the client. In either case there is no charge for the client's definition at each geographic level, for example for client-defined territories. Additional charges are made, depending on the mode of delivery, including the options of receiving data in data sets which can be used on the client's own computer systems through IMS's Dataview product (see paragraph 4.110). The minimum basic charge for *RSA* increased by 30.9 per cent overall from 1992 to 1998, and by 5.0 per cent in 1998 compared with 1997.

4.46. *RSA* data can also be provided at local level (known as brick level) in an on-line format called *SALEStab*, together with demographic information, target-achievement-bonus calculations and other extras. The basic annual subscription for *SALEStab* for clients not opting for Sunrise pricing was £40,627 in 1998, an increase of 93.9 per cent over 1989 and 5.0 per cent over 1997. Under the Sunrise pricing model clients pay only for usage of *SALEStab*, and do not pay a separate subscription for it.

4.47. PMSI supplies one, rather more limited, service called *Source Dispenser*, which has many of the characteristics of an STR. The *Source Dispenser* service, like STRs, also monitors sales of prescription products by wholesalers, but its format and content are rather different. Data are collected only from the 17 members of the BAPW and not from the other distributors (including parallel importers) covered by the *BPI* and *RSA*. The information provided to clients is restricted to data on prescription sales and covers only their own products. (Currently there are restrictions on the use of such data by firms other than IMS to provide a service showing comparative sales of all manufacturers' products in competition with IMS's *RSA*, resulting from an agreement between IMS and the BAPW dating from 1976. The future of this agreement after December 1999 is under review—see paragraph 4.130.) Sales of the products covered by *Source Dispenser* are analysed by individual pharmacy or dispensing GP. The service is supplied on a weekly basis on CD-ROM, and in contrast to *RSA* is available very soon after the conclusion of each reporting period. *Source Dispenser* is used by customers to measure their own sales of branded products into a particular pharmacy, and to target pharmacies for promotional or sales marketing in a similar way to the use of micromarketing services for targeting promotional and marketing activity at doctors. It is also used for assessing the success of a manufacturer's lines produced in the UK in competition with parallel imports from elsewhere in the EU.

4.48. *Source Dispenser* was originally developed by the BAPW and its members in 1994 under the title *Wholesale Sales Data Service* (*WSDS*), and prior to March 1997 was sold by the BAPW through a wholly-owned subsidiary, SDA Ltd. PMSI then took over development and marketing as the BAPW's agent. No other company supplies a service which is equivalent to *Source Dispenser*, as a result of an exclusivity agreement between Source and the BAPW similar to that contained in IMS's contract with the BAPW for the supply of across-the-board data. PMSI's sales of the service in the year to end-June 1997 were £100,000, and in the year to end-June 1998 £800,000.

4.49. IMS considers that because *Source Dispenser* is restricted to information on a client's own products and covers only the sales of the BAPW's full-line wholesaler members it cannot easily be used for the same purposes as other services based on census-level wholesale data, such as STRs, and should not be regarded as serving the same market need. However, a number of IMS's clients say that they do to some extent use it for measuring the performance and assessing the remuneration of their sales forces. Further, *Source Dispenser* has the potential to compete more closely with *RSA* than it can do in its present form, since if the restrictions just mentioned were ended its presentation and content could be extended to provide clients with details of the sales of their competitors' products as well as their own, while steps could also be taken to widen its coverage beyond the sales of the BAPW members.

4.50. Recent sales of the STR services of IMS and of PMSI's *Source Dispenser* service have been as shown in Table 4.8.

TABLE 4.8 **UK sales of STRs etc, 1993 to 1998**

£ million

Year	*IMS*	*PMSI*	*Total sales*
1993	10.4	-	10.4
1994	11.7	-	11.7
1995	12.5	-	12.5
1996	11.7	-	11.7
1997	11.9	0.1*	12.0
1998 (Jan–June)	7.1	0.8*	7.9

Source: IMS/PMSI data.

*Sales for year ending June.

4.51. There are no suppliers of STRs and similar products to the pharmaceutical industry other than IMS and PMSI.

Veterinary audits

4.52. Veterinary audits measure UK sales of pharmaceutical products from manufacturers and veterinary wholesalers to veterinary practitioners. These services provide pharmaceutical manufacturers with a national overview of sales of veterinary products. They are used to assess general trends in animal healthcare and to appraise the potential for new products.

4.53. IMS supplies one family of services in this area known as *British Veterinary Index (BVI)*. This is a monthly audit of all sales to veterinary practitioners at a national level. Under IMS's pricing model for clients not using Sunrise pricing the current annual price for national data, including data on three brick (ie local) level markets, is £24,066. Data are collected electronically from veterinary wholesalers, who are separate from other pharmaceutical wholesalers, and the services are available to customers at national and territory level in paper, PC-based and on-line viewing formats. IMS expects to pay around £[✂] in 1998 for the data used in the *BVI*. The wholesalers who sell data to IMS also sell them direct to manufacturers of veterinary products. These direct sales do not include the same comparative sales data as the services of IMS, but do offer data to a more detailed geographic level than IMS can provide. Because of this difference in coverage IMS does not consider these services to be direct competitors of its own audit services. PMSI does not supply any veterinary audits.

4.54. IMS's recent sales of veterinary audits, which in the absence of competitive services constitute total UK sales of such products, are as shown in Table 4.9.

TABLE 4.9 **IMS sales of veterinary audits, 1993 to 1998**

Year	*£m*
1993	0.3
1994	0.4
1995	0.6
1996	0.9
1997	0.9
1998 (Jan–June)	0.5

Source: IMS/PMSI data.

Prescription data services

4.55. This section discusses a group of services whose common characteristic is that they are based on records of prescriptions dispensed by pharmacists and those GPs who maintain their own dispensaries. Data are collected from a sample of retail pharmacies via their pharmacy computer systems.

These services are known by the generic name 'prescription data services', and are of three broad types: prescription audits, micromarketing services and GP-level services. Three companies currently supply services in the UK in this area: IMS, PMSI and TNS.

4.56. In addition to the services of IMS, PMSI and TNS, the PPA in England, and equivalent bodies in Wales, Scotland and Northern Ireland, receive for pricing all prescriptions dispensed under the NHS by community pharmacies, appliance contractors and dispensing doctors. The prescriptions include not only those written by GPs, but also prescriptions written by dentists and hospital doctors which are dispensed in the community. In order to enable the PPA and its equivalents to carry out their pricing function, information captured by them includes details of what was prescribed, the identity of the prescriber and where the prescription was dispensed. In some cases dispensers are required to give more precise details of what was dispensed in order for the prescription to be priced accurately. This is a degree of comprehensiveness which none of the commercial data companies can hope to match. IMS therefore argues that the PPA and equivalent authorities could, if they were permitted to do so, exploit this resource to offer a prescription data service to pharmaceutical manufacturers whose superior coverage and accuracy would sweep the field. IMS suggests that they could do this either using their existing or other available software, or by outsourcing the processing functions, or through a licensee or franchisee.

4.57. At present the PPA publishes some broad national and regional statistics on prescriptions dispensed, but is not permitted by the DH to offer prescription data services of the kind supplied by IMS, PMSI and TNS. The DH told us that this situation is unlikely to change in the near future.

Prescription audits

4.58. Prescription audits provide information at national or regional level measuring the broad movement of pharmaceutical products out of pharmacies and into the hands of patients. The raw data come from samples of pharmacies and are analysed by ATC and region, and then projected to a national level.

4.59. The main purpose of prescription audits is to enable pharmaceutical companies to measure national trends in prescription sales. They are employed for market research, rather than for marketing purposes. More specifically, they are used to observe prescribing patterns at an aggregated level, for example changes in response to a specific disease. These patterns can give an early warning of particular illnesses that are spreading among patients, and thus provide an aid to production planning as well as to other matters of company strategy. Because the services are not (at least currently) based on very large samples of pharmacies, they cannot provide the level of detail required for monitoring the prescribing patterns of doctors—for which micromarketing and GP-level services are designed. The uses to which prescription audit services are put do not require therefore the collection of information on the identities of the doctors who wrote the prescriptions which they cover—unlike micromarketing and GP-level services.

4.60. Prescription audit services are supplied in the UK by TNS, IMS and PMSI. The most widely used service is that of TNS which is called *Scriptcount* and was established in 1978. It is based on data collected from a sample of just over 300 pharmacies using their prescription labelling software, supplemented by questionnaires to elicit further information about prescriptions written generically. Pharmacies are paid around £300 a year on average for supplying these data. The cost to a subscriber of a full *Scriptcount* service is about £32,000 a year. Reports to customers are made fortnightly.

4.61. IMS has a prescription audit service called *Xtrend National*, also based on data collected from a representative sample of independent and multiple pharmacies. This service was launched in late 1996. PMSI has two prescription audits: *Prescription Audit* and *Prescriber Regional Tracker (PRT)*. These services have been available in prototype form since December 1995 but only the first has yet been fully launched (in March 1998), and PMSI regards both as still very much at the trial stage. Its PRT service is still available only with partial data on a limited sample basis.

TABLE 4.10 **UK sales of prescription audits, 1993 to 1998**

£ million

Year	*IMS*	*PMSI*	*TNS*	*Total sales*
1993	0	0	0.8	0.8
1994	0	0	1.2	1.2
1995	0	0	1.2	1.2
1996	0	0	1.2	1.2
1997	0.1	0.3	1.3	1.7
1998 (Jan–June)	0.3	0.01	1.4	1.8

Source: MMC estimates, based on information from IMS/PMSI data and TNS.

Recent developments in prescription data services

4.62. The ideal service to support the marketing operations of pharmaceutical manufacturers is one which monitors in detail and over time the prescribing preferences and patterns, and prescription volumes, of individual named doctors. Since decisions on which drugs should be prescribed are taken by individual doctors, it is they upon whom pharmaceutical manufacturers concentrate their marketing activity, via their sales representatives.

4.63. Micromarketing and GP-level prescription data services are two kinds of service that have recently been developed to meet this marketing need. No other type of information service can do this as effectively. They were first developed by PMSI (then a separate entity from Source) in the USA in the early 1990s, and later extended by Source to Europe. Work by Source to develop and test a UK service began in 1995. (Source was later acquired by PMSI.) IMS later responded by developing services of its own. Not until 1998, however, were the first services launched in the UK.

4.64. As noted above, the feature which distinguishes these services from other information services (notably prescription audits) bought by drug companies is the identification of individual GPs or small groups of GPs, and the linking to those GPs of the data collected from pharmacies on the prescriptions they dispense. This gives rise not only to a requirement, in the case of GP-level services, to gain the individual consent of each GP for whom data identifying that GP by name are to be supplied by a pharmacy, but also involves issues of patient confidentiality, since, *inter alia*, the data collected could, if not suitably processed, allow individual patients to be identified.

4.65. The usefulness of these services to pharmaceutical manufacturers for planning marketing at the local level is obviously broadly proportional to the coverage they can obtain of prescribing GPs and retail pharmacies. Services with a restricted geographical coverage may be useful in the specific areas to which they relate but overall will not amount to the comprehensive marketing-support tool sought by manufacturers. With no previous history of data collection of this kind in the UK, IMS and PMSI have had to expend considerable time and effort to overcome resistance, on the part of both the medical and pharmacy professions, to the concept of services identifying individual GPs. Much of the time which has elapsed between first development and eventual launch of these services (still, in the UK, on a fairly limited basis) has been taken up with the practical problems of setting up the framework for a full service. These include: finding a solution to the patient confidentiality problem (including discussions with the Data Protection Registrar); persuading professional and trade bodies such the British Medical Association (BMA) and the Royal Pharmaceutical Society of Great Britain (RPSGB), the professional and statutory body for pharmacists, to give their support to the services in principle; obtaining a sufficient number of consents from individual GPs; and enrolling enough pharmacies to contribute data via their computerized prescription management systems to provide the basis for a commercially viable service. After long negotiation both the BMA and RPSGB agreed to provide support in principle and issued guidance to their members on ground rules for providing data. IMS thereupon wrote in June 1997 to a large number of GPs asking if they would agree to be identified so that its data on prescriptions dispensed could be linked to them by name. PMSI also wrote to a large number of GPs shortly afterwards making a similar request.

4.66. A further important factor affecting the rate of progress in developing GP-level and micromarketing services has been the position taken by the DH. In July 1997 the DH, following the approaches to GPs by IMS and PMSI just referred to, sent a letter to all Health Authorities in England informing them of its view that NHS practitioners selling data to commercial market research companies might be incurring legal risks. The full text of the letter is reproduced at Appendix 4.2. The DH argued that, under common law and Data Protection Act principles, information given in confidence might not be disclosed without the consent of the provider of the information. It considered that in this case both patients and GPs might be regarded as providers of the data in question (namely the data to be collected from pharmacies relating to prescriptions written by identified GPs). It went on to advise that anonymization of patient details (as promised by the companies) would not remove the duty of confidentiality towards the patients who were the subjects of the data, and who would be unaware that information about their prescriptions had been given to the data companies.

4.67. The DH further said that it doubted that disclosure could be in the public interest. Nor would it be in the public interest for information on doctors' prescribing habits to be sold to the pharmaceutical manufacturing industry. The DH said that it strongly discouraged such disclosures on policy grounds, but GPs and pharmacists would need to take their own legal advice.

4.68. According to IMS and PMSI this guidance had a significant adverse effect on the willingness of GPs and pharmacists to participate in the prescription data services they were developing, making it considerably harder to build up contributing panels of sufficient size, or obtain GP consents. On 27 March 1998 Source was granted leave to apply for a judicial review in relation to the letter issued by the DH. It is seeking a declaration that the guidance contained in the letter is erroneous in law. It is also seeking a declaration that disclosure by GPs or pharmacists to a third party of anonymous information, ie information from which the identity of patients may not be determined, does not constitute a breach of confidentiality. The application is expected to be heard in the spring of 1999.

GP-level services

4.69. The purpose of GP-level services is to enable manufacturers to identify as closely as possible the GPs on whom they should focus their efforts in selling particular products. The services also, conversely but importantly, help them to identify those GPs unlikely to prescribe a particular product and on whom marketing effort would therefore be wasted. GP-level services, by definition, cover only the prescriptions written by those GPs who consent to be identified, and then only the proportion of such prescriptions which are dispensed by pharmacies contributing data to the services. So far only around 17 per cent of GPs in the UK have agreed to their identities being released, and only around a third of UK pharmacies are contributing data.

4.70. IMS and PMSI have both been developing GP-level services in the UK. IMS began selling GP-level data in February 1998. Its service, known as *Xtrend Brick*, contains both data identifying GPs by name and data which are prescriber anonymized. It is sold without extrapolation or further processing. Where a prescription written by a GP is dispensed by a pharmacy which is not contracted to supply data to IMS it will not of course appear in the database, so the picture of a given GP's prescribing habits will be limited to this extent. IMS's sales of GP-level services in the first half of 1998 amounted to £140,000. However, its estimated payments for all prescription data in 1998 (for use in both GP-level and micromarketing services) amounted to around £[✂] million, most of it going through suppliers of computer software and extraction modules for pharmacies.

4.71. PMSI's GP-level service is called *Source Prescriber*. This also provides identifiable data showing prescribing by named GPs. The service was under development for several years and was actually launched in November 1997. The full basic list price of *Source Prescriber* is £208,500 a year (1998/99 inclusive), which as well as the GP-level information includes PMSI's prescription audit and micromarketer services, and covers a maximum of 400 'products packs'. (PMSI's prescription audit can, however, be bought on its own for a basic fee of £18,400 a year. Similarly, *Micromarketer* and *Prescription Audit* can be bought on their own without the GP-level service for a combined basic fee of £82,850 a year.) *Micromarketer* and the full *Source Prescriber* service carry certain additional user charges.

4.72. *Source Prescriber* achieved sales of £270,000 in the first half of 1998. The 1998 sales figure may not, however, be a good guide to PMSI's future sales of the service, because of the effect of agreements that Source's then owner, Walsh, had made in 1995 with nine companies which gave it financial assistance. Source sought finance from a number of pharmaceutical manufacturers for the development of such services in seven European countries. Nine companies agreed to become partner clients, and made substantial loans repayable at 150 per cent of capital payment for this purpose in return for an undertaking by Source that it would not sell *Source Prescriber* to other pharmaceutical manufacturers during the first two years from launch of the service in a given country unless such a manufacturer was also a partner client. Thereafter partner clients, of which there were to be a maximum of 15, were to receive the services at a 50 per cent discount when compared with other clients. The capital payments were to be repaid by way of discounts amounting to 50 per cent or more on the list price of the services in each relevant country until those loans were repaid or, if Source was unable to provide products which produced sufficient discounts to enable such repayment by the set dates, in cash payments. The service to be developed under the agreements was the GP-level *Source Prescriber* service (see above). All sales of PMSI's service in the UK so far have been subject to the discount arrangement just described. In the UK the two-year period of exclusivity has not yet commenced.

4.73. PMSI's sales of *Source Prescriber*, combined with the sales of IMS's X*trend Brick*, give a figure for total UK sales of GP-level prescription data services in the first half of 1998 of £470,000.

Micromarketing services

4.74. At present around 17 per cent of GPs and a third of UK pharmacies have agreed to participate in GP-level services (where individual GPs are identified). Thus although, as noted, GP-level data can be sold on without further processing, their usefulness is limited by this relatively low level of coverage. However, once a sufficient volume of prescription data can be collected within a given area it can be extrapolated to provide estimates of prescription volumes in small geographic areas (comprising around 15 doctors). This has created the opportunity for a service which projects the limited data collected to provide estimates of prescription volumes at a more aggregated level. Such services have been termed micromarketing services, and, although not identifying individual prescribers, they offer enough detail to be useful aids to pharmaceutical companies in planning marketing at the local, as well as the regional and national, level.

4.75. IMS and PMSI have each been developing micromarketing as well as GP-level services in the UK. So far, however, only PMSI has launched a micromarketing version of its service commercially, called *Micromarketer*. IMS told us that it had plans to release a micromarketing service, under the name *Xtrend*, to customers by the end of 1998, although it has already sold other services under that name. IMS said that, if the merger was allowed to remain in effect, it intended to merge its own services with those of PMSI and market them under the name *Xponent*. No other company offers services of either kind in the UK, though (as already noted) the PPA and its equivalent bodies in Wales, Scotland and Northern Ireland already collect a comprehensive range of prescription data and would need only a modest investment, in IMS's view, to launch competing services.

4.76. PMSI's *Micromarketer* provides volumes and values of prescriptions written by doctors for specific products. The data are first aggregated to the local level, to assist healthcare companies to undertake targeted marketing programmes, and are also extrapolated to provide national estimates. Subtotals are also available broken down by Health Authority. The service is based on data from around 30 per cent of UK pharmacies. *Micromarketer* was launched only in May 1998; sales to end-June 1998 have therefore been insignificant.

Services based on other data

Medical audits

4.77. Medical audits provide quantitative information on GPs' consultations, diagnoses and treatments. They aim to observe and monitor actual prescriptions in response to a specific diagnosis (for example, which is the most popular drug for treating a particular medical condition and what the reaction to that treatment is in each case). They do not seek to analyse GPs' attitudes or behaviour as other services such as profiling services do (see paragraphs 4.94 and 4.95). Medical audit data are drawn from surveys of a panel of regularly contributing GPs.

4.78. Medical audits are bought by pharmaceutical manufacturers, academics engaged in health research, clinical researchers and other healthcare-related organizations. Their uses include studies on drug safety, research into the treatment of particular diseases, market research, planning of pharmaceutical R&D, and health economics. Suppliers of medical audit services to the UK market include IMS, Compufile Ltd ((Compufile) a small private company) and the Office for National Statistics (ONS). PMSI does not sell any medical audits.

4.79. IMS's medical audit services are as follows:

(a) *Mediplus* provides information on consultations, diagnosis and treatment of patients extrapolated from a set of data obtained from a panel of 500 doctors with computerized consultation, diagnosis and prescribing systems. The data are downloaded directly from these systems to generate a qualitative data set identifying the reasons why a product may be prescribed, the demographic profile of patients receiving a given product, or the prescribed dosages of a particular product.

(b) *MDI* is derived from *Mediplus* and provides summarized information on consultations, diagnosis and treatments of patients. It comprises a full list of all pharmaceutical products prescribed throughout the UK.

(c) *PCMD* is similar to *MDI*, but instead provides data on 'patient care' products such as bandages or colostomy products.

4.80. Compufile sells two services competing with the medical audits of IMS, both based on data collected from a sample of GPs: *DINlink*, which collects data on therapies and indications, and *New and Changed Therapy Enquiry* which collects data explaining why GPs prescribe a new or changed therapy.

4.81. The ONS has operational responsibility for the *General Practitioner Research Database (GPRD)* which it maintains on behalf of the DH. The *GPRD* contains longitudinal patient-based data on patient consultations, including symptoms, diagnoses, prescriptions, hospital referrals and outcomes. The ONS uses the data to publish national and regional statistics on prevalence of disease, prescribing patterns and referrals. It also sells data for ad hoc research studies, mainly to Government departments and academics. Its annual income from these publication and data sales is around £100,000. Use of *GPRD* data for market research based on branded drugs and the identification of individual general practices are not allowed, and there are no plans to expand the range of data supplied.

4.82. Recent UK sales of medical audit services are set out in Table 4.11. As may be seen, IMS has been losing market share to Compufile.

TABLE 4.11*(a)* **UK sales of medical audits, 1993 to 1998: sales by IMS**

Year	*£m*
1993	1.3
1994	1.4
1995	1.4
1996	1.2
1997	1.2
1998 (Jan–June)	0.6

Source: IMS/PMSI data.

TABLE 4.11*(b)* **Total UK sales of medical audits, 1993 and 1997/98**

£ million

	1993	*1997*	*1998 Jan–June*
IMS	1.3	1.2	0.6
Compufile	0.6	1.3	0.7
ONS/*GPRD*	0.1	0.1	0.05
Total	2.0	2.5	1.4

Source: IMS/PMSI data, Compufile and ONS.

4.83. The DH also told us that in addition to the income earned directly by the ONS from publication of *GPRD* data, the DH has granted licences to two organizations to process and sell on the *GPRD* data, for which they each pay just over £0.5 million a year. We understand that these licensees recover their costs by charging customers, mainly from the pharmaceutical industry, for research and the supply of data. We have no information on the extent to which such research may fall within the industry's definition of medical audits, and for this reason these licence fees have not been included in Table 4.11*(b)* or Table 4.5.

Hospital audits

4.84. Hospital audits are a continuous research service measuring consumption of pharmaceutical products in hospitals. They provide pharmaceutical manufacturers with a means of assessing general trends in hospital dispensing and usage, and the success of their sales campaigns in hospitals. Data are collected either electronically or in hard copy from purchasing returns from a panel of hospitals.

4.85. The main current supplier of hospital audits in the UK is Medicare, a company in which IMS's parent company acquired a 50 per cent shareholding in 1997. PMSI does not supply hospital audits, and IMS itself has ceased to do so on its own account since acquiring its shareholding in Medicare. Medicare's services in this area are:

(a) Hospital Pharmacy Audit and Hospital Pharmacy Index (HPAI). These services estimate, respectively, the regional and national consumption of pharmaceutical products in hospitals by hospital department or medical speciality. IMS believes they comprise around 90 per cent of available hospital data.

(b) DMD. This service is based on the same data as *HPAI*, but presents it by diagnosis or secondary purpose of use.

4.86. The pharmaceutical wholesaling companies AAH and Alliance UniChem PLC (Alliance UniChem) also provide some information to pharmaceutical manufacturers on the sales of their own wholesale businesses to hospitals, though only on a manufacturer's own products. Alliance UniChem told us that this was not done on a commercial basis and that it did not regard itself as a supplier of data services. It said that where data were supplied they were for the purpose of verifying fees payable

under commercial arrangements between the company and the manufacturer. AAH sells a small amount of hospital sales data to manufacturers but the revenues are not significant. Since the companies do not cover sales by their competitors the information does not constitute a full national audit of sales to hospitals and thus only competes to a limited degree with Medicare's *HPA* and *DMD* services.

4.87. The sales of IMS and Medicare in this area over the last five years are set out in Table 4.12.

TABLE 4.12 **IMS/Medicare sales of hospital audit services, 1993 to 1998**

Sales by IMS

Year	*£m*
1993	1.4
1994	1.4
1995	1.6
1996	1.1
1997	0.4
1998 (Jan–June)	Nil

Sales by Medicare

Years ended 30 November	*£m*
1997	3.2
1998	3.9

Source: IMS/PMSI data.

Promotional audits

4.88. Promotional audits differ from the other services that are discussed in this chapter in that they focus on the activities of pharmaceutical manufacturers rather than on prescribers and the use of drugs. They measure the advertising and other promotional activities of pharmaceutical companies, identifying the amount undertaken by specific companies in support of particular product sales. Manufacturers use them to compare the amount they spend on promotion with the amount spent by competitors. The audits are also used to monitor the number of mailshots sent out by competitors, and the number of prescribing doctors meeting their sales representatives.

4.89. IMS sells two promotional audits in the UK: *Medical Promotion Index (MPI)*, and *MPI Media Themes (MPIMT)*. There are a number of other suppliers of promotional audits in the UK, including CSN with a service called *Detail Monitor*, MMS ISIS with a service known as *Jigsaw*, and CAM with a service called *Detailing Audit*. PMSI does not supply promotional audits.

4.90. IMS estimates that its share of sales of promotional audits is around 14 per cent. On this assumption it estimates the recent UK sales to have been as shown in Table 4.13.

TABLE 4.13 **UK sales of promotional audit services, 1993 to 1998**

£ million

Year	*Sales by IMS*	*Sales by others*	*Total sales*
1993	0.4	2.2	2.6
1994	0.4	2.2	2.6
1995	0.4	2.2	2.6
1996	0.3	2.2	2.5
1997	0.4	2.2	2.6
1998 (Jan–June)	0.2	1.6	1.8

Source: IMS/PMSI data.

National primary research

4.91. National primary research is a type of market research that falls within the category known as profiling services. (Other forms of profiling service, in particular prescriber profiling, are described in subsequent sections.) Like other profiling services, national primary research provides qualitative information on the attitudes of health professionals towards specific products, either through self-evaluation questionnaires or through empirical interviews and surveys. It concentrates on attitudes, impressions and other demographic information, for example information concerning the type and number of prescribed products over a certain period of time, the average number of patients per week, or the degree of computerization of the surgery. The aim is to explain phenomena in the market place, rather than simply to count and monitor them.

4.92. The services are used by market research departments within pharmaceutical companies to assist with long-term strategic planning (for example, product positioning, new product evaluation). In order to carry out such planning, the research departments employ national primary research tools:

(a) to measure brand awareness and usage;

(b) to compare the views of GPs with their professional and practice management colleagues;

(c) to investigate the behaviour and attitudes of healthcare professionals towards certain pharmaceutical products; and

(d) to assess the structure of the market and its dynamics.

4.93. IMS has no national primary research services in the UK. PMSI sells a number of such services:

(a) *Generator*, a research tool, based on face-to-face interviews with health professionals;

(b) *Moderator*, a range of research services that allows customers to investigate behaviour and attitudes within the healthcare sector. PMSI uses group discussions, short and long in-depth interviews and smaller meetings with healthcare professionals to gather data for these surveys; and

(c) *Operator*, which serves the same function as *Moderator*. However, in this case the survey data are collected by means of telephone interviews.

PMSI sales of national primary research were £2.8 million in 1997. Total UK sales are estimated by IMS to be around £15 million. The other main suppliers of these services are mainstream market research companies.

Prescriber profiling

4.94. Prescriber profiling (also known as physician profiling) is a specialized form of profiling service. It is based on responses of doctors and other healthcare professionals to questionnaires. The responses help in understanding the prescriber's behaviour and in providing demographic information. The main use of these profiling services is by the marketing departments of pharmaceutical companies to identify short-term marketing tactics.

4.95. PMSI sells two services:

(a) *Prospect*, a family of services that allows customers to analyse current trends in product prescribing and choices of drug for treating specific symptoms. The services also help researchers to identify those doctors most likely to initiate prescribing of particular products; and

(b) *Scriptrac*. The *Scriptrac* database includes behavioural data collected by self-completion postal questionnaires from around 40 per cent of UK doctors. The data collected include doctors' accounts of their own prescribing behaviour.

The value of PMSI's sales of these services in 1997 was £1.5 million. IMS told us that it was not aware of any other existing suppliers in the UK. IMS itself used to sell a prescriber profiling service called *STARS* in the UK until 1997, when the service was withdrawn because of lack of sales.

Other profiling services

4.96. IMS does not offer any other profiling services in the UK. Other profiling services sold by PMSI measure the reactions of readerships to particular advertisements, journals, periodicals, and advertising styles and concepts. They comprise:

(a) *MARS*, a database of advertisements which measures the relative effectiveness of each advertisement in terms of stopping power, message and response;

(b) *Call-Link*, which measures the success of an advertising campaign after it has happened by asking the target audience to recall and link the advertisement to the product to which it related;

(c) *Mediator Readership*, which profiles the readers of magazines, journals and periodicals;

(d) *Mediator Reader Involvement*, which shows how readers 'read' a journal or periodical, ie whether prescribers read one section of a journal more than another, whether the layout affects the reader's perception of a periodical, whether readers are affected by particular parts of advertisements; and

(e) *Adscan*, a library (on CD-ROM) of advertising campaigns run in prescribers' journals.

PMSI sales of the above services were some £0.2 million in 1997. Total UK sales of the above services were estimated by IMS to be £1.5 million.

Other related markets

Pharmacy software

4.97. Computer software is available to pharmacies that is specially designed to carry out functions specific to their business as well as standard retailing functions. Among other things it can generate the data used in prescription data services. PMSI sells a software range called Highway through its subsidiary, Mediphase. Highway is a computerized system that prints labels, provides stock control management, and assists in the overall management of the pharmacy. It also identifies items dispensed under NHS prescriptions and accurately predicts and checks monthly statements of remuneration from the PPA. In 1997, PMSI's UK sales of Mediphase software and computer systems amounted to around £2.4 million. Mediphase software is installed in around 15 per cent of UK pharmacies. Among alternative suppliers of pharmacy software are JRC (until recently owned by TNS), Hadley Hutt and Chemtec. These companies are all subsidiaries of NDC, together accounting for a significant proportion of UK sales of pharmacy software. IMS sells no pharmacy software in the UK.

Medical data publishing

4.98. PMSI's CMA Medical Data subsidiary (CMA) sells data services to customers in the healthcare management field (for example, hospital doctors and administrators, health services bodies). In 1997, it sold around £1.2 million of data services. CMA provides three types:

(a) *Paper directories*. CMA sells paper-based directories of health-related information including the *Directory of Emergency and Special Care Units*; the *Hospital Telephone Directory*; and the *Hospital Address Book*.

(b) *Electronic directories*. All the directories sold by CMA in paper format are also available as electronic directories. For specialist or field-based personnel, modules of information are also available by means of user-friendly contact software.

(c) *Hospital Data Centre*. Hospital statistical data are also collected and presented in an electronic format. The database includes: total bed numbers by hospital (NHS and private); operating theatres and the number of daily operations (NHS and private); and accident and emergency attendance.

(d) *Maps*. CMA also publishes a comprehensive range of management and planning maps that identify relevant NHS boundaries.

4.99. CMA competes with other publishing organizations such as Beechwood House Publishing which provide similar services. We are aware of no reliable estimate of the size of the medical data publishing market. IMS offers no services in this market.

Healthcare management software

4.100. IMS has recently begun piloting new healthcare management services to the NHS. These services include:

(a) *WINBEDS*, a real-time analysis system that enables healthcare administrators to evaluate the reasons for delays in hospital bed availability and take action to improve patient throughput; and

(b) *CANPARE*, a system that facilitates the comparison of cancer care between different areas of the healthcare system.

IMS has only recently entered this market, and in first six months of 1998 sold £2.4 million of services. PMSI offers no such services.

Electronic territory management software

4.101. ETMS services are software systems on portable computers used by the sales representatives of pharmaceutical companies. Uses include organization and planning of sales calling activities; reporting sales calling activity to sales management via remote laptops; assisting in keeping customer files up to date; providing greater and more timely interaction between the sales representative and the management team; and accessing office information remotely. Although ETMS products themselves contain no data, these products can be used to access data such as market databases, hence they are to some extent complementary to some of the data services mentioned above.

4.102. Prior to the acquisition of Walsh, IMS had no ETMS sales in the UK, although elsewhere in the EU IMS has recently begun selling ETMS products manufactured by its US subsidiary, Sales Technologies. Walsh had sales of some £2.5 million in the UK in 1997, a 15 per cent share of a total market estimated by IMS at £17 million. Other suppliers include Dendrite International (Dendrite), ISS Ltd and in-house systems produced by or for pharmaceutical companies.

MIDAS and OTCims

4.103. Many of the customers of the companies supplying information services are multinationals. The decisions which they or their UK subsidiaries make on what UK market information services to buy are likely to be influenced by the availability and compatibility of related services of an international scope sold to the corporate headquarters, wherever these may be. This applies in particular to two electronic products sold by IMS called MIDAS and OTCims which can be used to view NSA-type data from different countries. However, IMS says that such purchasing decisions are generally taken at local level to ensure that the services obtained are suited to conditions in the local market.

4.104. MIDAS is what IMS describes as a 'viewing environment'. No data are collected specifically for use in MIDAS, but the product can be used to give on-line access to a database in which the customer can view NSA data formats from all countries for which IMS produces such data, and to some which IMS does not. It thus allows the user to search this material for the answer to a specific question such as 'what were X's sales of product Y in France, Germany, UK and New Zealand in 1996 in US dollars?'. MIDAS is aimed at corporate headquarters divisions that have responsibility for strategic evaluation of several markets.

4.105. Because information suppliers sell products under different names, through different subsidiaries, at different prices, and in different formats and currencies, such a computerized system must be able to standardize data sourced from different countries. IMS describes this as the central function of the MIDAS software. As a result, customers are able to view and compare harmonized and integrated data.

4.106. MIDAS is generally sold to a client's group headquarters and not to its national offices. This means that although responsibility for purchasing local NSA information services usually lies with the local subsidiary, an international group may well be influenced by whether such information, in addition to its use at local level, can also be accessed conveniently at corporate level through a service such as MIDAS. One feature of the MIDAS service is that the client (or its local subsidiary) must first purchase national-level NSA data before it can also subscribe to MIDAS. Moreover, MIDAS can only be used to view and compare the data of those countries for which the client has contracted to buy national-level information services or, where IMS does not itself sell services, other data have been obtained. Thus, if there is a particular country in which the client obtains its market information from one of IMS's competitors but buys none from IMS, any information on its sales in that country which IMS may have collected will not be available to it through MIDAS. In these circumstances the corporate headquarters would normally need to take out a separate subscription for the national data in order to have access to the full international range via MIDAS.

4.107. We received a number of complaints from customers about the MIDAS arrangements. Those concerned argued that IMS was double-charging for the service, since clients were being asked to subscribe for data both at the national level and at international level. IMS's response was that this was a misunderstanding. It told us that, on the contrary, the charges for MIDAS per se covered only the cost of setting up and maintaining the system, access fees, the cost of on-line usage, and the cost of preparing the software. The cost of collecting and preparing national data was recovered entirely in the local costs of the service. If a client's corporate headquarters could use MIDAS to access national data for which it had not subscribed locally, it would be getting those data free of charge.

4.108. The charging structure for MIDAS is complex, but starts from a base subscription of US$34,240 (£20,622). This gives a client access to data from a minimum of three countries in MIDAS. There are discounts for certain clients who supported the initial launch of MIDAS, for small companies meeting certain criteria, and to meet special circumstances, for example where data supplied has proved faulty.

4.109. OTCims is a similar international system containing national level data relating to OTC medicines. It is accessed on the same basis as MIDAS.

MAXIMS database and Dataview

4.110. In addition to MIDAS at the international level, IMS also offers a similar national-level viewing environment through which national data can be accessed on-line electronically and manipulated. This PC-based framework for accessing national data formats is called MAXIMS. It comprises *UK Audit Database*, a database of all IMS national data. In addition to the charges for any individual IMS information services purchased, a client wishing to access the data through MAXIMS is also, under the IMS pricing arrangements for clients who have not opted for Sunrise pricing, charged a basic subscription for the MAXIMS database of £22,822 a year, plus additional usage rates. These charges include a licence for the software through which MAXIMS can be viewed, known as Microlink and Partner. MAXIMS, used with this software, provides a customer with remote access via a telephone or similar link to the MAXIMS main-framed database. Clients on Sunrise pricing do not have to pay a separate subscription for MAXIMS. IMS also offers a separate access product called Dataview. This, in contrast to MAXIMS, allows a customer to view data, however received, on its own computer, though IMS also sells its national-level services in *Dataview Datasets* for this purpose. *Dataview Datasets* (syndicated service), under the pricing arrangements for non-Sunrise clients, cost £19,266 for the first dataset, or £14,443 each for two or more datasets. IMS's revenues from use by clients of MAXIMS and Dataview are included throughout this chapter in the sales figures for the relevant product or service category (for example, *BPI*).

Substitutability

4.111. We start with continuous market research and consider the various services first from a demand-side perspective. The services offered by IMS, PMSI and other information service providers have been developed in response to a variety of specific needs and tend not to be easily substitutable for one another. Thus, NSAs provide an overview of the market and are used for strategic planning and monitoring therapeutic trends. A large amount of territorial detail would not be relevant to such usage, but it is essential that coverage should be near census-level in comprehensiveness, both as to the number of products covered and the volume of sales. STRs are derived from the same data but have the entirely different purpose of monitoring the effectiveness of selling effort at local level, and determining the appropriate remuneration of the sales force. Users of STRs need data disaggregated to sales territory level, but will require information only on the products or therapeutic classes in which they are active. OTC audits also draw on the same databank of information collected mainly from wholesalers, but cannot by definition offer a complete overview of the pharmaceutical market because they do not cover prescription products.

4.112. Nor does it appear likely that prescription data services (that is, prescription audits, micro-marketing services and GP-level services), as currently available, could satisfactorily be substituted for NSAs or STRs based on near-census-level wholesale data. This is because, being based on data collected from relatively small samples of pharmacies and extrapolated, the prescription data do not permit verification of actual total sales transactions, either at national or territory level. Nor do they cover a sufficient range of products to be useful for broad planning purposes.

4.113. If the coverage of prescription data services could be sufficiently extended they, or new products based on the same databanks, could arguably offer effective substitutes for at least some of the existing products based on wholesale data. The degree of comprehensiveness which would be necessary is a matter of debate. For example, IMS believes that virtually census-level coverage is essential to provide an effective STR. However, several manufacturers told us that effective STRs, estimating sales by pharmacies at sales territory level, could be extrapolated from data collected from as little as half of UK pharmacies.

4.114. Neither IMS nor PMSI is likely to be able to extend its coverage of prescription data services to anything approaching 100 per cent in the foreseeable future. Both companies have met major obstacles in building up their panels of contributing pharmacies to the present level of around 30 per cent, and the task is likely to become increasingly difficult as coverage increases: remaining non-contributors will be those most resistant to the concept of such services. The same goes for GPs who consent to be identified: those who have already consented are likely to have been the most sympathetic to the approaches of IMS and PMSI. IMS believes that a considerable proportion (perhaps as high as 30 per cent) is never likely to consent. However, since PMSI currently collects data from

around one-third of UK pharmacies, we think that if the uncertainties arising from the DH letter and the legal challenge to it were resolved in PMSI's favour, a 50 per cent sample might fairly quickly be achievable. At that level more extensive use of services based on prescription data for general market research and for sales force management cannot be ruled out. For the main existing use of these services, ie planning marketing effort at the local level, present sample sizes are sufficient to provide a basis for satisfactory services.

4.115. From a supply-side perspective the picture appears to be quite different in terms of product substitutability. It is relatively easy for a supplier to move between NSAs, STRs, veterinary audits and OTC audits as all are derived to a great extent from the same pools of data collected from wholesalers and others. Each service is merely a reprocessing or manipulation of these data to meet different market requirements, with additional data sources being drawn on in certain cases (for example, for OTC audits). Prescription data services are, however, another matter as the source of the data is not only quite different but may also prove difficult to tap. We have described in paragraphs 4.65 to 4.68 a number of practical problems that have arisen and we return to questions of barriers to market entry in the next section.

4.116. Turning to ad hoc or non-continuous research, most of the services that fall in this category provide research into one aspect or another of pharmaceutical sales and marketing and customer behaviour. From a demand side perspective these may complement the services based on continuous research but are directed to different purposes and are generally not directly substitutable for continuous research or for each other.

4.117. A partial exception to this is prescriber profiling services (see paragraphs 4.94 and 4.95). The aim of these services is to help pharmaceutical manufacturers to gain an understanding of GPs' prescribing practices through questionnaires which samples of GPs are asked to complete on a regular basis. Participating GPs are identified in the reports, which marketing departments use to plan short-term marketing tactics (including identifying those doctors most likely to prescribe their products). The uses of some such profiling services are thus very similar to those to which micromarketing and GP-level prescription data services are put, although the majority of profiling services are used for market research purposes. Moreover, some prescriber profiling services cover quite large samples of doctors (PMSI's Scriptrac service is said to be based on questionnaires received from around 40 per cent of UK GPs).

4.118. However, the reports, whilst useful in highlighting aspects of prescribing behaviour, are unlikely ever to provide the accuracy or completeness in measuring the actual movement of goods out of pharmacies obtainable from prescription data services. There are several reasons for this. The reports are subjective and GPs often tend to provide prescribing information from recall rather than by reference to their records. The reports cannot indicate whether prescriptions written are actually dispensed. Further, with some 36,000 GPs practising in the UK, surveying all of them on a regular basis using the methods of prescriber profiling would be a massive exercise, even in the unlikely event that they could all be persuaded to participate. The enthusiasm of the drug companies for prescription data services reflects the greater accuracy of these newer initiatives (described to us by one company as 'the holy grail').

4.119. From a supply side perspective the position is again rather different. The skills and resources required for one type of ad hoc research are similar to those required for others. Hence companies which have entered the field in supplying one type of service are likely to have little difficulty in moving on to supply others.

Barriers to entry and growth

4.120. Aside from the current uncertainty over the future of prescription data services arising from the judicial review, there are no legal or institutional factors that might be seen as constituting barriers to entry into the pharmaceutical information services sector. The basic skills and techniques required (such as database construction and maintenance, manipulation and interpretation of statistical series, conduct of postal or telephone surveys and the use of questionnaires) are common to many types of market research. IMS argued to us that entry was easy for any company with the relevant skills for conducting research into FMCG markets. However, during the course of this inquiry we were told of

a number of factors which allegedly serve as obstacles to entry, at least into particular parts of the sector. These are described below.

4.121. In continuous research, typified by the wholesaler-based and prescription data services as supplied by IMS, PMSI and TNS, information has to be gathered and added to databases on a continuous basis and over a number of years (although IMS argued to us that for most purposes a two-year run of data is sufficient). This requires considerable investment in computer systems, as well as in specialized software to handle, analyse and present the data, and that well in advance of a significant flow of revenue.

4.122. Moreover, considerable expenditure of time, effort and money is necessary to build up the sources of the information before a commercially viable database can be put together. For services providing information on sales by wholesalers, such as STRs, IMS argues that nothing less than 100 per cent coverage of sales will do. If, for example, a key wholesaler will not contribute data, then alternative data sources must be found to make good the gap, for example extensive sampling of the pharmacies supplied by that contributing wholesaler. Any products obtained from suppliers other than wholesalers (for example, purchases by a large retail chain direct from manufacturers for self-distribution to its own outlets) also have to be appropriately monitored. For prescription data services, substantial investment is necessary to build up panels of contributing pharmacies and participating GPs. PMSI has spent large sums (see paragraphs 3.86 and 3.87) in developing its prescription databases in the UK, and in building up its panels of contributing pharmacies and participating GPs. The fact that it needed to seek financial assistance from pharmaceutical manufacturers to do so, at the cost of some fairly onerous indemnities, tends to confirm the scale and burden of the investment required (though IMS argues that many of the costs incurred by PMSI were due to problems associated with creating the market and would not fall on a new entrant).

4.123. IMS and PMSI maintain that although it took them nearly three years of argument and persuasion to reach the point at which they could launch their prescription data services, the groundwork has now been done and new entrants could build on this to establish their panels of contributors and launch competing services quite quickly. Up till now, however, progress has been slow. The willingness of pharmacists and GPs to contribute to another such service has been adversely affected by the DH's letter discouraging participation, and PMSI's legal challenge to it has added to pharmacists' anxieties. Further, even if these uncertainties were eventually resolved in PMSI's favour, a new entrant would be likely to face a more difficult task to persuade new pharmacists and GPs to supply them with data, given that those already participating in the services of IMS and PMSI are likely to be those most favourably disposed to such services.

4.124. There are also barriers of scope faced by new entrants. In both the wholesaler-based and prescription-based sectors, the same databases can be used as the common source of a variety of services, thus spreading the fixed costs and reducing the incremental cost of generating additional revenue. IMS, for example, gains considerable strength from being able to base its *BPI* service, OTS report, *Pharmatrend* and *RSA*/*SDA* services on data obtained from broadly the same pool. To compete on an equal basis a new entrant would have to be able to offer products covering the same range of end-uses, and even then would face the difficulty that its products would be new to customers.

4.125. An additional disadvantage for new entrants stems from the preference of some customers for long-term relationships with information providers. Continuous market information is a vital tool for managers in the pharmaceutical manufacturing industry for monitoring the relative performance of their products over time, planning their marketing, and rewarding their sales forces appropriately. They are very dependent on the services they receive and this makes it attractive to enter into long contracts for continuous research. We have been told that a number have done so. This is likely to disadvantage new entrants, especially when customers' budgets are fully committed to established services.

4.126. A further factor affecting ease of entry is that continuous research involves high fixed costs. As a result a new entrant needs early commitment by a critical mass of clients if his service is to avoid being unprofitable during a start-up period. Clients in this industry, however, appear to be reluctant to commit themselves or to change to a minor supplier or one that is only in the process of development. This adds to the financial risks of setting up a new continuous research service.

4.127. The advantage derived by an established firm from the international scope of support systems like MIDAS (see paragraphs 4.103 to 4.109) is also relevant in this context. We have been told that healthcare multinationals increasingly expect a standardized and integrated global product offering from the information companies they use. A continuous research product confined to one country and unsupported by an international delivery system comparable to, say, IMS's MIDAS service would be at a disadvantage. IMS told us that in some markets, for example the USA, there are possibilities to combine MIDAS data with data obtained elsewhere, but this is likely to be less convenient than use of a single service. It has been argued to us that the IMS infrastructure of common support files and integrated data delivery and analysis systems all give IMS a competitive advantage in national and international continuous research services that go beyond NSAs, STRs and prescription data services into the related areas of hospital, OTC and promotional audits.

4.128. Software compatibility is another issue of potential importance. Most of the services of IMS and PMSI, even if still available in hard copy, are now mainly used in their electronic formats and are widely accessed on-line. This means that pharmaceutical company computer systems must be loaded and configured with appropriate software to receive and process the data. Further, the computer systems of data suppliers must also use software which stores and delivers the data in appropriate formats. Thus the co-operation of the software supplier will also be required. This particularly applies to the software used by pharmacies to record, label and process the prescriptions they dispense. This software, installed originally for stock control and prescription labelling functions and more recently used for internal prescription management, delivery of data to the PPA, and calculation of payments due from the NHS, is also used by IMS, PMSI and TNS for delivery of the prescription data they collect. Any technical limitations or contractual restrictions introduced by the suppliers of pharmacy software on its use for prescription data services could have an impact on the ability of a new entrant to set up a new information service, even where pharmacies in which such software is installed are willing to contribute their data. (IMS says that it is not aware of any such restrictions currently in operation.)

4.129. We also received a number of representations about barriers to entry arising from exclusive contracts between IMS and its suppliers of data, which were said to have the effect of preventing these suppliers from providing market data to any other research service company. IMS told us that, whatever the position in the past, its policy now was not to have any exclusive contracts with suppliers of data, because of the doubtful legality of such exclusive agreements under EC law, and because data suppliers, increasingly conscious of the commercial value of their data, had made it too expensive for IMS to do so. In consequence all their suppliers were now, with one major exception, free to sell the same information to anyone they wished without any restrictions. Nearly all other parties we spoke to were unaware of the change in policy.

4.130. The exception, at least for the time being, is IMS's contract with the BAPW for the provision of wholesale data by the BAPW's members. (IMS uses these data, along with data from around 80 other suppliers, as an input to the *BPI*, its OTC report and NSA services.) This contract was first entered into in 1976 and gives IMS exclusive rights to the information to the extent that it is used to produce information services covering the performance of different manufacturers' products. The terms provide that the contract may be reviewed annually should either party make a formal written request prior to 30 November in any year. Should termination of data supply take place, it will be effective on the second anniversary of the 31 December following the request for a review. On 24 November 1997 the BAPW gave IMS a notice under the contract that would enable the BAPW to terminate the contract on 31 December 1999.

4.131. The restrictive terms of this contract is one reason why PMSI's *Source Dispenser* product (originally launched in 1994 as the BAPW's own *WSDS* but later transferred to PMSI) only provides information on a manufacturer's own products, and does not provide data on competitors' products. *Source Dispenser* is based on information collected from wholesalers similar to that on which the *BPI* and other IMS services are based, but the terms of the existing BAPW contract with IMS do not permit the data to be used for a competing service covering the full range of products. If IMS's contract with the BAPW is terminated at the end of 1999, or renegotiated on a non-restrictive basis, the coverage of *Source Dispenser* could be extended.