The remuneration of community pharmacy in Scotland.

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THE REMUNERATION OF COMMUNITY PHARMACY IN SCOTLAND

A study of the history of the remuneration system; a critical comparison of the Scottish system with that used by several other countries; the changes and developments in community pharmacy and National Health Service organisation and practice and the relationship of these with the remuneration system; the motivation of community pharmacy; community pharmacy as a profession; and the exploration of alternative remuneration and organisational models for the provision of NHS pharmaceutical care.

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ABSTRACT

The system of remuneration of community pharmacies and pharmacists in Scotland is related to the structure of this branch of the profession and to the structure and policy objectives of the National Health Service (NHS).

The profession has over at least the last 10 years expressed dissatisfaction with both the quantum of the remuneration and the method by which the payments are made. Also the government and their officials have made it clear that the current method is not suitable for paying for some of the new services which are being provided at present or could be provided in future by community pharmacies. However, a remuneration system devised by a National Service which is virtually a monopoly purchaser of the services on offer or required has to be examined in the context of the political and social system within which it exists.

It is believed that the cause of the dissatisfaction is the difficulty created by the profession being both traders in the High Street and providers of professional health care services. This allied to the change in emphasis from a provider of products for a profit to a provider of patient orientated information and knowledge has caused difficulties and conflicting perceptions of what a remuneration system needs to achieve.

The aim of this thesis is to critically examine the history and evolution of the system used in Scotland and to propose changes which could be made which would reverse the current perceived problems. The study also aims to further the knowledge of remuneration systems which are appropriate for a professional pharmaceutical primary care service within the evolving Scottish NHS.

The thesis therefore examines the history of the current remuneration system since the profession began to provide a health care service in the 18th Century. The changes in the system which resulted from the National Insurance Act of 1911 are examined as are the changes which flowed from the National Health Act of 1948. The evolution of the system from 1948 until the present day is discussed critically and an attempt is made to relate the alterations made to accommodate the changes in emphasis in the practice of community pharmacy from a product to a patient orientated profession. The main points of contention between the profession and the Government are highlighted.

The theoretical alternative methods of remuneration are discussed and the system used in Scotland is compared and contrasted with the systems used in several other countries.

The development of professional practice and the emergence of the new concepts of first clinical pharmacy and later pharmaceutical care is detailed. The significance of these developments to the practice of pharmacy in the primary care sector of the NHS is examined. Further changes in the philosophy and policies in the NHS and their possible

significance to the organisation and remuneration system of community pharmacy is discussed.

Alternative theoretical remuneration models are studied in detail. These models were drawn from lessons learned from history, from systems used and the organisation of the service in other countries and from changes both in the practice of the profession and from the organisational and other changes in the NHS. Models are explored which are based on the present system of a cash limited global sum determined at the top by Government. These have been termed top down models.

A further series of models which explore the basic costings and rewards from first principles have been postulated. These have been termed bottom up models.

It became clear that it is possible that the existence of the single global sum, top down method of payment is an inhibiting factor in the development of a remuneration system which adequately recognises and rewards the provision of cognitive, professional services and also compensates for the investment in the continuing concomitant supply service. Separate payment systems (with or without an upper limit on resources) would appear to be necessary if the provision of the service is to adequately provide pharmaceutical care to patients being treated in the NHS primary care sector.

The motivation of community pharmacists and their desire to achieve increased status and reward from the NHS is critically discussed.

Finally a radical remuneration structure is proposed based on the findings in the earlier part of the study.

The study concludes by suggesting possible ways in which the development of the organisation and a parallel remuneration system within the NHS can be taken forward including proposals for continuing and future research.

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Where any opinions are expressed in this thesis, they are my own and are not those of the Scottish Pharmaceutical General Council, its officers, staff or members.

GLOSSARY

ABPI	Association of British Pharmaceutical Industries. A trade organisation and representative body.
AHA	Area Health Authority (England).
AHB	Area Health Board (Scotland) responsible for strategic planning and purchasing health care for the geographical area for which it is responsible.
AASCP	American Association of Consultant Pharmacists.
BMA	British Medical Association. The "Trade Union" of the medical profession.
CAPO	Chief Administrative Pharmaceutical Officer - pharmaceutical advisor to the Health Board - also prior to 1988 manager of the hospital pharmaceutical service.
CEO	Chief Executive Officer. In Ireland this office is the Chief Officer of a Health Board.
CRAG	Clinical Resources and Audit Group. A Scottish Body set up to review clinical practice.
Community Pharmacist	A pharmacist who owns or who is employed to practice in a retail pharmacy.
BNF	British National Formulay. A document published jointly by BMA and RPSGB describing the action and uses of medicines in current use.

Community Pharmacy	A term used by the profession to describe a registered retail pharmacy. The latter is the legal term used in the Medicines Act 1968 and in the NHS Pharmaceutical Regulations.
Clinical Pharmacy	Literally "practical pharmacy at patients bedside". Involves techniques to ensure medicines are used effectively.
DDR	Drug Dosage Review. A term used to represent and review the dosage of medicines given to individual patients.
Dispensings	An item (see item) may be dispensed one or more times under a convention known as "serial dispensing". Each time it is dispensed it is referred to as 'a dispensing' for which a fee is payable.
Drug bill	The pharmaceutical primary care budget to cover drugs, medicines, prescribed (by statute) appliances and dressings and the remuneration of pharmacy contractors.
DHA	District Health Authority (England). Similar to a DHB in Scotland
DHB	District Health Board (Scotland) a defunct body. A strategic and managerial role similar to an AHB.
DHSS	Former Department of Health and Social Security - Government Health Department. Replaced by Department of Health.
D of H	Department of Health Government Department responsible for health in England.
DKK	Danish Crowns. The Danish Currency.
DRR	Drug Regime Review. A term used to describe the review of the medicines prescribed for individual patients.

FPC	Family Practitioners Committee. The body responsible for administering the primary care services in England prior to 1984.
GIC	Gross ingredient cost - the gross cost of products dispensed to the primary care service.
Global sum	That part of the primary care pharmaceutical budget allocated to remunerate contractor pharmacies and appliance contractors.
GP	General Medical Practitioner.
GSL	A medicinal product, which under the terms of the Medicines Act 1968 can be sold from premises other than a retail pharmacy. Literally "General Sales List Medicine". See also OTC.
HB	Health Board. In Scotland responsible for purchasing health care and managing the primary, secondary and public health service.
HCH budget	Hospital and Community Health Budget. One element of the composite health budget voted by Parliament.
Item (on a prescription form)	A prescription form may have included upon it one or more items. Thus a NHS prescription form is an order for one or more products. Note that "prescription form" is defined in NHS Pharmaceutical Regulations as a form issued to General Medical and Dental practitioners to enable them to order products required to treat primary care patients.
Mark up	A sum, normally represented by a percentage which is added to the wholesale price to give a retail selling price.

ME	Management Executive. The organisation within the Government health departments responsible for advising Ministers on policy and for executive action in the carrying out of Government policy for the NHS. Sometimes referred to as NHSME though not by Government. There is a separate ME for Scotland, England, Wales and Northern Ireland. Hence the implication in NHSME that there is only one in erroneous.
Medicinal Product	A pharmaceutical product licensed under the Medicines Act, 1968 to be sold or supplied for the treatment, amelioration or diagnosis of disease or physiological conditions.
NI	National Insurance Scheme set up by the National Insurance Act, 1911.
NHS	National Health Service. The organisation and management of the provision of health services by the 1948 National Health Service Acts. There are separate Acts for England, Scotland. Wales and Northern Ireland.
NHS Trust	A body appointed by Government to manage a specific NHS service. This is normally one or more hospitals or clinics and similar services.
NOK	Norwegian Crowns. The Norwegian currency.
NIC	Net ingredient cost - gross ingredient cost of products dispensed less the average discount applied to the Primary Care "drug bill".
NPA	National Pharmaceutical Association. An elected body representing the owners of pharmacy businesses.
On cost	similar to a mark up. A term used to describe the extra payment given to community pharmacies in Scotland. It was originally intended to reimburse them for the costs incurred in providing the services.
OTC	An over-the-counter medicine. (i.e. a P or GSL medicinal product).

Pharmacist	A person registered with the Royal Pharmaceutical Society of Great Britain under the Pharmacy Act 1954.
Pharmacy	Retail premises registered with the Royal Pharmaceutical Society of Great Britain under the terms of the Pharmacy Act 1954 and the Medicines Act 1968. See also community pharmacy.
Pharmacy Contractor	A person, partnership or corporate company who is in contract with a Health Board to provide an NHS primary care service.
POM	A medicinal product, which under the terms of the Medicines Act 1968 can only be sold or supplied from a retail pharmacy on a prescription presented by an approved practitioner. Literally "Prescription only medicine".
P	A medicinal product which under the terms of the Medicines Act 1968 can only be sold or supplied from a retail pharmacy. Literally "Pharmacy only medicine".
Pharmaceutical Care	A term coined first by Hepler and Strand to indicate the total pharmaceutical service given to an individual patient when a product is sold and/or supplied. It includes all the services given after the product has been sold or supplied.
PCT	Primary Care Trust. A new concept in the management of primary care services. These Trusts will be similar in practice to the current NHS Hospital Trusts.
Pharmaceutical Services	Those services, defined in the NHS (Scotland) Acts and in the subordinate legislation, which are to be delivered to primary care patients.
Prescription	In this study, this is an order to supply or sell medicines given by a medical or dental practitioner to a pharmacy in order that the latter can dispense the product or products required. In NHS terms it represents a NHS prescription FORM (i.e. a formal piece of paper). See also ITEM.

PPD	Pharmacy Practice Division of the Scottish Central Services Agency. Responsible for pricing prescription forms and for collecting data on medicine usage in the primary care service.
PPRS	Pharmaceutical Price Regulating System. A voluntary system agreed between the Government and the Pharmaceutical industry to regulate the price of medicinal products sold to the NHS.
PSNC	Pharmaceutical Services Negotiating Committee. The body recognised by the Secretary of State for Health for England as representing pharmacy contractors in England and Wales. Elected by pharmacy contractors.
RHA	A Regional Health Authority (England only) now defunct.
RHB	A Regional Hospital Board.
RPSGB	Royal Pharmaceutical Society of Great Britain - Statutory registering and disciplinary body of the pharmaceutical profession. Note that prior to 1979, it was called The Pharmaceutical Society of Great Britain (i.e. it did not have Royal status prior to that date).
RTV	The Norwegian National Health Service organisation.
RVU	Relative Value Unit. A term used in the Tariff system of payment in USA.
SHHD	The Scottish Home and Health Department - a department of the Government's Scottish Office (see SO, D of H) previously responsible for health policy and NHS executive action in Scotland.
SO, D of H	The Scottish Office, Department of Health (formerly the SHHD). See SHHD.
S of S	Secretary of State for Scotland. The Government member of the Cabinet responsible for all Scottish Affairs.

SPGC	Scottish Pharmaceutical General Council. Body elected by Pharmacy Contractors to represent them in discussions and negotiations with the Government and recognised as such be the Secretary of State for Scotland.
Tiers Garant	A French term - for a payment system for practitioners which includes fee for items of service where there is not necessarily continuing responsibility for the client/patient. This term was first used in 1907. It has come to mean something different in the current French health system.
Tiers Payant	A French term - 'direct provision' - for a payment system for practitioners which includes salary, retainer, capitation, professional allowances, or case payment. It implies a continuing responsibility for the client/patient. This term was first used in 1907. It has come to mean something different in the current French health system.
VAT	Value Added Tax. A tax levelled on specific goods sold to the public.
WTE	Whole Time Equivalent. A term used to differentiate between the number of staff employed and the number of hours they work.

PREFACE

"The apparent difference, besides, in the profits of different trades, is generally a deception arising from our not always distinguishing what ought to be considered as wages, from what ought to be considered as profit.

Apothecaries' profit is become a byword, denoting something uncommonly extravagant. This great apparent profit, however, is frequently no more than the reasonable wages of labour. The skill of an apothecary is a much nicer and more delicate matter than that of any artificer whatever; and the trust which is reposed in him is of much greater importance. He is the physician of the poor in all cases, and of the rich when the distress or danger is not very great. His reward, therefore, ought to be suitable to his skill and his trust, and it arises generally from the price at which he sells his drugs. But the whole drugs which the best employed apothecary, in a large market town, will sell in a year, may not perhaps cost him above thirty or forty pounds. Though he should sell them, therefore, for three or four hundred, or at a thousand per cent profit, this may frequently be no more than the reasonable wages of his labour charged, in the only way in which he can charge them, upon the price of his drugs. The greater part of the apparent profit is real wages disguised in the garb of profit."

ADAM SMITH, (1776)
THE WEALTH OF NATIONS
BOOKS I-III p214-215

CHAPTER 1

GENERAL INTRODUCTION

The commercial context in which community pharmacy operates requires an unusually eclectic approach to research including this thesis. The research methods and perspectives needed to understand and evaluate community pharmacy must be drawn from disciplines not normally encountered in health service research in this country. They include hands on experience of business administration, market analysis and economic modelling. Failure to address community pharmacy research issues, such as those touched upon in this thesis in the context of the complex commercial and health service environment in which community pharmacy in this country operates will produce results and which will lack credibility with non-NHS stakeholders in the profession[1]. The results and the proposals and any conclusions will be ignored by those who have the resources and consequently the power to change the practice of the profession. This study, therefore, has had to take into account the fact that its readers are not just pharmacy academics, sociologists, health economists, Government departments (including health departments) and politicians but also the non-pharmacy stakeholders and owners of what the profession calls community pharmacy, but in society in general are known as "chemists", "retail chemists" and departmental stores as well as "corner chemists" and "high street chemists".

The basic premise of this study is that the present National Health Service (NHS) remuneration system for community pharmacy is unsatisfactory as stated by the Nuffield study[2]. It also discourages the provision of a high level of pharmaceutical care. The view of the members of the profession engaged in community practice is that the quantum of resources made available by the global sum system, adopted by the Government, is inadequate to reward individual professionals for their expertise and for their contribution to primary health care. It is alleged that this results in the community pharmacist contractor subsidising the NHS from the other income which is received from the non-NHS part of the business.

This study is, therefore, an attempt to contribute fresh material to the discussion, which has filled so many columns of the Pharmaceutical Journal[3] and the Chemist and Druggist during, at least, the last decade. The matter to be resolved by the Government and by the

profession is how best to remunerate community pharmacies and pharmacists (for the provision of pharmaceutical care) in a publicly organised health system provided by private sector contractors who may or may not be pharmacists. This study can do no more than contribute to the debate. It cannot provide a perfect answer. What it attempts to do is examine the system used in some depth, the history of the system and the current trends in the developing practice and the organisation of the NHS. It also attempts to draw from the experience of other countries, propose criteria by which an acceptable system should meet and to test a selection of models against these criteria. A possible theoretical basis for a revised system is studied in this thesis. It is the intention that this proposed theoretical approach should be debated and the models tested by further research at a later date.

The arguments, however, have not been solely about money. The current system of paying community pharmacists is directly descended, with the occasional infusion of fresh blood, from the system which came into existence after much travail, following the 1911 National Insurance Act [4]. The issue is whether in a modern NHS it permits and encourages the best standard of pharmaceutical care, provides the right incentives and avoids the wrong disincentives for both the community pharmacist and the patient. It has to reward the provision of cognitive services as well as the provision of products.

The quantity and quality of pharmaceutical services and pharmaceutical care provided for patients is related to the method and level of remuneration or reward which the pharmaceutical providers and carers receive for their efforts and the application of their expertise. However, because of many factors, third party payment systems apparently have not taken this into account in arriving at a fair remuneration system [5]. Most systems, including the Scottish NHS system, are based on the rewards for the safe supply of products and does little to reward the services required to ensure the safe and effective use of medicines by individual patients and by society as a whole.

It is axiomatic that those members of a profession, who provide a service to the public, must receive an adequate reward. The owners of the business also require an adequate return on their investment in the business if they are to continue to trade. Both need to be at a sufficient level to enable the provider to be motivated to give and improve that service[6,7,8].

With health care systems that are totally market led, the quantity of the payment and the quality of the service are related to market forces and the value which the receiver of the service puts on the care which is received. In a perfect market, the 'seller' (the provider) can influence but cannot force a purchaser to buy what the provider believes to be the largest quantity of service of the very highest quality. Therefore, it follows, that the purchaser will decide for himself what quantity and quality of service he will purchase. This decision will be influenced by what the purchaser is prepared to afford for a service which he perceives that he requires.

It is obvious that a very high proportion of the purchasers of health care - including pharmaceutical care - do not have the necessary knowledge to judge what is really needed. In addition, it is likely that those who require the service usually fall into the social classes who have the least knowledge and the least ability to acquire the necessary level of understanding. Another consequence of this basic flaw in the perfect market system is that there is inevitably a proportion of the population, who can intrinsically afford a large quantity and a high degree of quality of service, but who do not have the desire or the ability to acquire the necessary knowledge of their real care needs. In these circumstances, there is a tendency to relate high cost with high quantity and quality, and there is a relationship between these elements. Members of this group then proceed to purchase the largest quantity and the highest quality (whether or not required in any particular circumstance) and by definition set the standard of service which the remainder of the population very frequently perceive as their right. If consumers do not value the service and the expertise involved in providing it, or do not appreciate the need for it, demand will fall and consumers will spend their resources on other products or services that they value more highly. In Scotland, however, the only true consumer of NHS pharmaceutical services is the Government. The Government is frequently quoted as valuing the service highly [2,8,9].

In the market economy, the consumer of the service will set the amount and comparative level of the reward. The economic law of supply and demand in a perfect market economy will have a considerable influence on the level of reward. In a profession, where there is a high level of expertise involved and where the expertise required can only be obtained from specially educated and trained personnel, then only a relatively few members of a normal society will be able to provide such a service. These members will, therefore, be able to

expect a comparatively high level of reward. Where the services on offer, or available, require that the providers need a higher level of expertise than the normal available from the members of the profession, an even higher level of reward will be achieved where the services are demanded or intrinsically required by the consumers.

In most societies, however, the payment for a health service is paternalistic. The provider of the service, whether it be the state or other public body, private or public insurance systems, or the health care professionals themselves, determines the quantity and quality of service which the individual requires and which can be provided. In short, the provider drives the standard and the quality that is to be provided and, therefore, to an extent determines the costs and prices involved [9].

Where the services include the supply of a product, the reward for the services provided will be included in the price at which the product is sold (See Chapter 2). A percentage mark up on the cost of the ingredients and the other overhead costs involved in the preparation of the product will be given to each product. In such circumstances the expertise involved will be focused on the product. The more complex the product and the greater demand for the product, the higher will be the mark up which can be applied.

Where no product is involved, then the effort and expertise will be rewarded by a different type of payment method (See Chapter 2). When pharmacy was first recognised by society as a profession, the expertise was contained within the making of the product and, therefore, the reward was contained within the price of the product. Some of these earliest pharmacists also received a 'retainer' from their better-off clients as a reward for providing a continuous responsibility for that client. Frequently such a client received, as a consequence, a discount on the price of the products supplied [10].

Therefore, in a market economy with no intervention of the 'pure' supply and demand situation remuneration systems were relatively simple to operate and understand. However the availability of a perfect market in the health care market does not now exist, if it ever existed. In the early part of the 19th century in the United Kingdom before there was any legal control on the manufacture, distribution and the prescribing of drugs and medicines, a qualified perfect market did exist in the sale and supply of drugs and medicines.

Thus, the situation today is radically different in all countries from those described above. There are two basic reasons for this. The first is that only a very small percentage of the population pays directly for their health care; and this small percentage relates to the rich or affluent members of society. By far the largest percentage of the population - which include the middle and the poor sections of society (and even to an increasing extent, the rich) - receive their health care via a third party payer. The relevant third party includes Governments, Government agencies, insurance companies and societies, so-called friendly societies and employers and / or organisations of employers, who in turn will often involve insurance societies or companies. These third parties pay the professional providers for the services their clients receive and the clients, in turn, pay the third party from general (i.e. non-specific) taxes, by hypothecated taxes, (both usually deducted from the earnings or sales, at source), or by an agreed insurance premium. In some countries, a combination of taxes and insurance premiums are used. Only those with no or comparatively low incomes make little or no contribution to the health care fund.

The other seminal change is that most pharmacists in practice (including so called community pharmacists) no longer prepare the majority of the products they supply. Thus, their expertise is no longer an integral part of the nature and preparation of the product since virtually all products of any import will be researched, manufactured and distributed by the international-wide pharmaceutical industry. The community (or retail) pharmacist's skill has changed to an expertise on the use of the products, based on the knowledge of the pharmaceutical, chemical and biological nature and formulation of the product and on its theoretical and clinical pharmacology.

It follows that the mark up system of reward is archaic (see Chapter 2.) and no longer adequately and properly rewards the contemporary expertise of the community pharmacist, and the interjection of a third party payer between the pharmacist and his client in the payment of the reward introduces complex logistical problems. Furthermore, as a perfect market no longer exists, if it ever did, the classical law of supply and demand is distorted.

Third party payers acting for their contributing clients and the providers of the service need to work out new systems for the payment of rewards, which imitate or try to replicate what occurs in the private sector market. This is necessary since community pharmacists exist in the private retail sector and it is accepted, at present, that the Government will wish this to continue.

As far as pharmaceutical care is concerned, there is very little evidence of research in the U.K. into the various ways in which the provision of pharmaceutical care is, or can be, rewarded. There has been more work done in countries like the USA [11], where there is more of a free market in health care. However the third party payment system requires, by definition, the payer to carry out research on available systems. By its nature such research is seldom, if ever, published and therefore is seldom publicly debated. If such a debate takes place it tends to concentrate on the costs involved rather than the system itself and is based on a subjective assessment of the effects of the system on the quantity of the reward and not on the quality and effectiveness of the service or care provided. In spite of the fact that there are several studies on the effect of the payment system on the behaviour of medical and other practitioners there is very little, if any, credible research in the public domain on how payment systems affect the professional behaviour of community pharmacies or their pharmacists. Perhaps this is because NHS contracted pharmacies are businesses which are frequently owned by other than pharmacists and payment systems influence their business practices more dramatically than they influence the professional pharmaceutical practice. For example, incentives which would increase market share may be more important than those which reduce the inappropriate use of products.

Frequently crude measures are used to assess the quality and effectiveness of the service. For example, the UK Government uses as a measure, the number of establishments which provides a NHS pharmaceutical service and the adequacy of recruitment of those wishing to provide the service (see Chapter 3). It does not use any measure of the effectiveness of the service in improving the health care of the individual patients.

As long as the number of providers remains stable and the recruitment of providers is buoyant it is presumed that the quantity of the reward must, *ipso facto,* be at about the right level. Armed with these criteria and such presumptions, supplemented by spasmodic audit of the quantity and quality of the dispensing service provided and the assumption that supply and demand is in balance then it is further presumed that long-term research and the devising of models of various alternative systems does not need to have a high priority. It is frequently claimed by Government that this approach is justified by the fact that no additional resources could be made available even if the research indicated that these would be required. Since the outcome of the research could not be implemented, in these circumstances, it is claimed that research would be a misuse of resources. This is an unsatisfactory state of affairs since it is short-term in effect and does not necessarily create

the best service, nor the best value for money, either for the purchaser or the provider. Also if the balance gets out of kilter, the resources and the time required to correct the balance are unpredictable and may be considerable.

The hypothesis in this thesis is that, if such a relationship exists between the quantity and quality of the required service, or can be devised, the receiver of the service, together with the purchasers of the service, will be able more openly to agree with the health care provider, a fair and viable reward, for the quantity and the quality of service, which is necessary in the particular circumstances pertaining to the NHS in Scotland.

In qualitative research into such social services as community pharmacy it is accepted by social scientists that such research is hierarchical in nature. There is a sequence of research which begins by mapping current practice, followed by evaluating current practice. Then follows the testing of new interventions or systems followed by moves to get new satisfactory interventions or systems into practice. The intention is that this will result in improved patient care[12]. This thesis concentrates on mapping current practice and in evaluating it. It tests selected new possible systems against subjective criteria. It does not attempt to test these in practice or suggest ways in which they could be introduced into the NHS. It is, therefore, limited in its objectives.

This thesis does not attempt to argue that the present structure of community pharmacy itself in Scotland inhibits the development of pharmaceutical care. It accepts however, reluctantly, that non-Government or non-NHS owned and managed retail pharmacies exist as commercial high street traders and that they will continue to exist. The fact that these will exist as corporate limited liability companies and as independent pharmacy owned and managed establishments is also accepted as a fact and, therefore, that the NHS remuneration system must satisfy the needs of all these variations. It does not, however, accept that the services provided to patients and how the services are rewarded by the NHS must remain as at present.

It is likely, that a satisfactory system will be related to the political nature of the third party payer and how it collects its income, and the organisational structure and nature of the provider of the service. Since these criteria vary from country to country (and indeed within different areas of the same country), a single universal answer is not likely to be available. This study concentrates, therefore, on answers which might be appropriate to the NHS in Scotland.

PHARMACY AS A PROFESSION

Although community pharmacy describes itself as a profession, some community pharmacists think that it is not always perceived as such by others [13]. To enhance its own belief and to change the perception of others, a profession strives to take on or be given more characteristics of a profession, and to increase its rewards to a level which it equates with the status and rewards received by the traditional professions such as law and medicine. It may be that the quantity of reward should be different but the style of payment should be similar. If that is the case it will create difficulties within the community pharmacy since it is likely that large multiple pharmacies would prefer a style associated with other multiple retailers and small independents a style associate with the medical profession.; in particular general medical practitioners.

Pharmacy has regarded itself as a major health care profession for at least the last fifty years and probably much longer. However, established professions such as law and medicine command a much superior status and better rewards than does pharmacy, teaching and social work. There are hierarchies within professions, for example, consultant medical practitioners have higher rewards than general practitioners. Thus even though the inputs may be similar between professions (education, devotion, specialisation, skill, knowledge) they are not rewarded equally. This range of variations in outcomes (pay, fringe benefits, social acceptability) has made it difficult to define the essential features of a profession. Goode [14], in 1957, described professions as 'a community within a community', stressing the highly distinctive and integrated nature of their occupational cultures. He goes on to suggest that a profession can be identified as an occupation with which its members have a common sense of identity and values, share a consensus as regards their social role, speak a common language, are life time members of their occupation, have an unique body of knowledge and an unique educational system.

What is more important than defining what constitutes a profession is determining the nature of professional work. Professions traditionally enjoy the high status and material rewards associated with positions of authority, yet they are also involved in concrete processes of work. Sometimes, this can be manual work (for example, a surgeon is frequently involved in quite hard manual work, albeit delicate and skilled): and although

there remains a belief that professions are white collar in nature and demand fees or salaries but not wages, there remains the belief that professionals should actually perform the work themselves and not merely delegate it to others. In an attempt to try to determine what constitutes professional work, the following aspects have been singled out by Fincham [15].

1. Professional work typically has a service element - either service to the common good, such as in health or education, or service to an individual client, or, in an organization, the provision of a staff service to line management.

2. The professions are ethical occupations. Because they employ a complex technical language, and are often involved with matters of critical importance to individuals and society, there is a need to regulate professional conduct by a code of ethics. The central relationship of trust between client and professional, upon which the legitimacy of professional advice is based, itself rests on the belief that professionals will act purely in the client's interest, and for no other purpose.

3. The professions tend to be self-regulating occupations. Their responsibilities usually involve extensive skills and technical knowledge, for which long periods of training are required; hence professionals themselves prefer to reserve the right to be sole judge of the competence of their colleagues. They determine training requirements, control entry to the profession, and, in some cases, grant the license to practice.

The skills and knowledge of professionals, and their concern with services of exceptional importance, have conventionally been used to explain their superior status and rewards. It has been pointed out that to see professional status merely as a reflection of the intrinsic qualities of professional work is to paint a rather static and misleading picture. Johnson [16] has argued that studies which focus on the supposed qualities of professions have never been able to agree a list of traits that are typical of all professions in all circumstances. Similarly, the suggestion that professions serve fundamental social needs (for example, health, law and education) is also rather doubtful.

As far as pharmacy is concerned, the suggestion that only a pharmacist can safely and efficiently dispense medicines is often called into question, since it is argued modern dispensing involves only the labelling of packs prepared by industry. However, it is counter

argued that dispensing also embraces all the elements of pharmaceutical care and that pharmaceutical care is an essential social and health need [17].

It must, however, be accepted that the alleged and maintained altruism of professions has often been exaggerated and the professed ethical and progressive role of the professions has been called into question. Johnson [16] indicated that such acceptance falls into the error of accepting professionals' own definition of themselves.

Fincham [14] suggested that instead of regarding professionalism as an inherent quality of a few select occupations it is best regarded as an occupational strategy whereby groups attempt to gain recognition as professions in order to receive the rewards (including remuneration) received by the established professions. This accusation could be levied at pharmacy. Certainly, the sociologist Everett Hughes said that he passed from the false question, "Is this occupation a profession?" to the more fundamental one, "What are the circumstances in which people in an occupation attempt to turn it into a profession and themselves into professional people?" (quoted by Johnston [16]). The emphasis thus turns to a dynamic process of a group or groups attempting collectively to upgrade their occupational strategy.

The process of the pharmacy profession attempting to change from fundamentally a trade selling for profit products skilfully produced to providers of cognitive services to patients could be regarded as an occupational strategy. The desire by the profession to increase the quantum of remuneration and to change the system of allocating remuneration to a style more associated with the established professions could be used to confirm this proposition.

It is, therefore, worth going into more detail about the characteristics of an occupational strategy.

THE PROFESSIONALISM OF PHARMACY SEEN AS AN OCCUPATIONAL STRATEGY

It is often taken for granted that the older established professions are used as a benchmark from which the status of all professional groups is measured. However, the nature of most professional work has undergone major changes in recent times. Professionalism as an

occupational strategy reflects both the opportunities that have arisen for groups like pharmacy to move up in status and at the same time threaten the status of existing groups.

Mills [18] had pointed out in 1951 two main aspects of this dynamic situation. Firstly that comparable established professions change over time. It is true that pharmacy and the comparable profession of medicine have been transformed in recent times. The independent, self-employed, medical practitioner beholden to no one but his client/patient was represented as the model professional. Nowadays, even medical practitioners, lawyers and accountants - who are regarded as having a high status - are often employees rather than independent partners in an independent practice. This is also true of pharmacy.

Secondly, as can be seen from Table 1, all professional/technical categories have grown very rapidly within the occupational structure. The rapid development and expansion of the basic and applied sciences has demanded new skills and knowledge appearing and being utilised. Again this is true of pharmacy.

TABLE 1

OCCUPATIONAL ANALYSIS OF PERSONS IN EMPLOYMENT IN BRITAIN				
	1984 (000s)	1989 (000s)	1990 (000s)	1984-90 Increase %
Managerial, administrative and related professional	3515	4328	4589	30·6
Professional in education, welfare and health	2053	2285	2377	15·8
Professional in science, engineering and technology	1047	1144	1173	12·1
Clerical	3546	4098	4237	19·5
Other non-manual	1779	2011	1949	9·5
Skilled manual	3993	4079	4073	2·0
Other manual	6584	6997	6797	3·2
All non-manual occupations	12193	14241	14703	20·6
All manual occupations	10879	11241	11018	1·3

From Employment Gazette (London;1991, P.183)

Mills [18] further pointed out that, perhaps more relevantly, the effect of the growth of State provision of services influences the development of a profession. The growth of State provision resulted in expanded groups being employed directly or indirectly by the State rather than operating as independant practitioners. The growth in number of such groups, and the growth in numbers within each group has posed problems for these groups in defining, expanding and, indeed, in protecting their boundaries. This is certainly the case with the pharmaceutical profession.

The theorists (such as Mills) [18] have enunciated important tactics for securing occupational control in such circumstances. Several tactics were singled out by Mills and those relevant and important to pharmacy include the following.

The membership of the group should be an uniting force, and the professional association is vitally important in representing and furthering the interest of the profession. This is certainly true of the intentions of the Royal Pharmaceutical Society of Great Britain. However, the Jenkin judgement of 1921 [19] means that the furthering of the remuneration of the profession cannot be carried out by the RPSGB. Thus there are several groups carrying out this function. Also groups, such as the pharmaceutical scientists, hospital pharmacists, community pharmacists and industrial pharmacists, in spite of the best efforts of the RPSGB, do not always see themselves as part of the whole profession with a common interest. Either they see themselves as the whole or only worthwhile part of the profession, or they see themselves as not part of it at all. The RPSGB does, however, by statute regulate the undergraduate and pre-registration education and training. It has no legal powers to regulate the post-qualification education and training, though it attempts to do so by other means. By various means, it attempts to ensure a high level of skill and knowledge and practical ability amongst all the member of the profession, all of which are regarded by Mills [18] as important tactics in the occupational strategy process. Clearly the availability of a progressive post qualification education system is a factor which increases the pharmacist's motivation to provide an improved service.

This occupational strategy of the pharmacy profession has common elements with two other major occupational strategies of advancement, namely the trade union strategy of workers and the career strategy of managers. Mindful of this, Parry and Parry [20] have

defined a professional strategy as a form of upward collective mobility. Thus, if a profession has to be successful in its occupational strategy, it has to be a firm coalition of interests and act collectively, not unlike a trade union. Professionals have been known to take industrial action but are anxious not to be identified by the public as trade unions. Thus, professional associations are closer to craft unions than to large general trade unions; the latter operating in such a way as to represent as many people as possible in a particular industry, whatever their specific occupation or skills.

With craft unions, the opposing principles of inclusion and exclusion favour the latter. The RPSGB, for example, has resisted representing the interest of pharmacy technicians, dispensing assistants and counter assistants. Trade unions are condemned for using restrictive practices in defence of jobs, whilst the tactics of the professions, including the pharmacy profession, which are aimed at exclusivity, tend to be accepted by the public as being in its interest.

Against this, the type of rewards/remuneration being sought by the professions are clearly different from those aimed at by workers' trade associations. The professions aim to provide a setting for members to pursue individualistic career paths and achieve distinctively middle class rewards. Trade unions are more egalitarian than this in their aspirations.

Professions pay particular attention to the collective ethics of the group. Studies have shown that such ethics, as well as ostensibly protecting clients, crucially serve the interests of the professions [20]. The accuracy of the ideological character of professional ethics, rather than the truth, or otherwise, of the claims of the profession, must be ascertained and accepted by society and the public if the profession is to be fully accepted and appropriately rewarded. It is, perhaps, true in the sociological sense that it is in the public interest to have secure professions looking after the interests of the individual members of the public. Nevertheless, the control of the action of members by the use of ethics enhances the vested interest of the professions concerned. The ethics of a profession can come to represent a sort of occupational ideology uniting the members of the profession, rather than representing the ethics of a society, which it is the duty and responsibility of a profession to protect.

For example, a professional threatened by legal action for alleged incompetence, can normally expect his colleagues to close ranks behind him, as long as he has not broken the code of ethics. Internal discipline within professions, tends to be overwhelmingly concerned with cases where the profession itself may be brought into disrepute - mostly involving illegal or immoral behaviour - rather than investigating cases of incompetence on behalf of the client or the public.

Pharmacy claims to be a profession, and demands the privileges of a profession, because of its superior knowledge of medicines and the usage of medicines. Hughes [21] suggests that this type of action is the mark of an occupation struggling to gain exclusive rights to practice and self-regulation. The more established professions guard their monopoly of knowledge very closely. Thus pharmacy, in promoting its interests, finds itself in conflict with the medical profession, and more recently the nursing profession, since both these professions require some, however limited, knowledge of medicines.

The manner that professionals adopt in their practice is an important tactic in maintaining their possession of vital knowledge. The rise of the concept of *pharmaceutical care* as opposed to the apparently more low level concept of *dispensing* is an example of this tactic.

As was mentioned previously in this Chapter, the power of a profession extends frequently beyond its own immediate occupation. Esland [9] has stressed that the expertise which professions command confers upon them a mandate to produce and generate certain kinds of knowledge for society as a whole. Thus the pharmaceutical care which a patient requires is to an extent determined by the pharmaceutical profession and not by the patient himself. In such circumstances the profession concerned feels that this gives it the right to determine the level of reward which its members receive for that service.

In a democratic, or indeed an autocratic society, it is axiomatic that there is no guarantee that any occupation will be successful in its demands for professional recognition and the status and rewards which would follow. Even if it is successful there is no guarantee that it will retain its status and rewards over the longer term. This is particularly true when social or other circumstances radically alter over time and to which the profession and its

members do not respond by altering their behaviour, practice and organisational structure. In these cases the profession ceases to be relevant.

As a strategy, professionalism is open-ended and many groups calling themselves a profession will enjoy only a limited form of autonomy, although the members of the group may not see it that way or refuse to accept that this is so.

The result of this is that a profession which the public do not perceive as having the status of a senior profession, nevertheless can be very jealous of the trappings of the professional autonomy that it has acquired. Such a profession may consciously adopt the tactic of drawing attention to its trappings rather than its substance [22].

Community pharmacy is not a whole profession in itself. It is the branch with the most members and it is certainly the branch with which the public is most familiar. However, solutions to its current motivational and reward problems arrived at in isolation, would not necessarily enhance the status and rewards of the whole profession. Indeed they could further fragment the profession to such an extent that it could no longer claim to be a unique and comprehensive medicines related profession. This is the crux of the matter. Solutions to the perceived and/or alleged problems of community pharmacy must take into account the attempts at self-actualization of all members of the profession and give motivation to them all. If not the profession as presently conceived will cease to exist.

How can the differences in the rate of progress along the path of professionalism of different groups, like pharmacists and nurses, be explained? Why are medical practitioners capable of sustaining their elite status in a changing world while pharmacists - it is claimed - are not? Is this an important issue? Certain professions may have managed to achieve prestige, while others have not. It may be simply serendipity and not be capable of explanation. It would appear, however, that the pharmacy profession demands a distinctive answer to these questions. It may do this so that it has a theoretical basis on which to revise its strategy or change its tactics to achieve its objectives rather than to meet the real needs of society. Put another way, the objectives may be self generated, and may not reflect the needs of society.

If there are to be theoretical answers to these questions, historical and institutional factors must be taken into account. For example, Johnston [16] and Parry and Parry [20] pointed out that State intervention into an occupation seems to be a major factor in explaining why relevant occupational groups, like pharmacy, have become (or could become) marginally professional. The same could be said of medicine in the current State controlled system of health care. In such circumstances, the ethics of the profession are shaped wholly or partly by government law and bureaucracy and reflect the rules of the employing or contracting agency of the State. At the same time control over the service provided resides with that agency - all of which detracts from true objective professional values, if indeed such exist.

To further progress this hypothesis at a more theoretical level, two related concepts help to explain variations in professional autonomy. Carchidihas [23] has drawn attention to the contrasting forces operating on middle-class occupations, such as pharmacy, some of which degrade and constrain occupational control, while others serve to enhance an occupation's market position and the reward received from the market. He asserts that the extent to which the functions of capital are being served is an important criterion. If the profession concerned plays an important role in administrative and control functions crucial to the production of surplus value, it will command a market position that will bring power and exceptional rewards.

If on the other hand, the profession has tenuous links with these fundamental capitalist processes, occupational prestige will be more marginal.

Further, as well as the salience of the function performed, the rewards accruing to a profession and its members are also determined by the nature of the work involved. Jamous and Peloille [24] have argued that where a high degree of indeterminacy exists in the work of a professional (i.e. the tasks are very variable and non-rationalised), then those who control this uncertainty are likely to command and enjoy high status.

Conversely, where such work has been systematised and subject to laid down procedures or legal rules and regulations or to guidelines or protocols, it becomes possible for forces outside the occupation to intervene and control the work process. As can be seen from the sections of this study dealing with the changes in the organisation and structure of both the NHS and the pharmaceutical profession and the increase in formalisation of the rules and

regulations governing the sale and supply of medicines, both by the State and the profession itself, this hypothesis could indicate that the independent professional status of pharmacy and the consequent rewards are in danger of decline rather than the reverse.

This hypothesis or explanation in the way we distinguish between professions still seems to be circular. It is still possible to ask why the job of general medical practitioner (who is subject to similar increasing State intervention, rules and regulations as the community pharmacist) would appear to be both indeterminate and salient for capital but the community pharmacist's job is not. It may be that salience and indeterminacy are more subjective than objective features of the work process and that social and political factors also play a crucial role in creating, or failing to create, the correct conditions for high status and reward.

Close scrutiny of the development of elite professions will result in the observation that, at crucial points in their development, they have been able to take advantage of the objective conditions of their work situation. Modern medicines are potent agents for both good and ill and must be used carefully to ensure that the former dominates the latter. It is generally accepted that considerable improvements in the safe, effective and efficient use of medicines could be made. Pharmaceutical care could be regarded as a legitimate attempt to take advantage of the objective conditions of the work situation of community pharmacists[25]. In other cases the less well renowned professions have a self-defeating aspect. This may manifest itself by internal quarrelling or marked jealousy between sections or branches of a profession. This may have been the case with pharmacy in the recent past.

As Jamous and Peloille [24] have pointed out, pursuit of best practice may mean codifying and mechanising the work of a profession, thus shifting the control to outside managerial elements. It would appear that with, for example, the New Age proposal for pharmacy [26], and with frameworks for clinical pharmacy practice, with RPSGB guidelines for the sale and supply of medicines in community pharmacy practice and a host of similar initiatives, the pharmacy profession is currently engaged in such a process. The profession may thus streamline itself out of a job.

Therefore, the concepts of salience and indeterminacy link strategic factors with structural constrains on strategy. They point to the crucial necessity of a profession such as pharmacy behaving as an occupational group in its struggle to exert control over its occupational domain, seizing on the objective conditions which their work setting provides in such as the evolving NHS.

In this respect, the growth of corporate chain pharmacies and pharmacists in large supermarkets, and in their taking over of pharmacy practices in opposition to independent practitioners, is a crucial factor in determining a remunerative structure suitable and acceptable to the whole profession and not just community pharmacy.

Attempts should be made to ensure that a revised remuneration system meets the criteria described in Chapter 2 and 5. There are, however, some constraints placed by the organisation of the NHS which made the achieving of an ideal remuneration system difficult. For example, the NHS has no direct interest in the remuneration contractors pay their employees particularly since these are often in competition with similar retailers. Nor is the NHS directly concerned with the relative viability of individual contractors, as long as a service is available when and where needed. Individual contractors may require different incentives to those required by their professional staff to provide direct patient care when the latter is often secondary to the objective of the non-NHS part of the business of the contractor which in the case of large multiple retailers is to maximise profit and sales in the interest of their shareholders. They do not necessarily conflict but the circumstances do exist when they could.

Corporate organisations are in the market to sell and supply medicines and to profit from that activity. As they have to satisfy their shareholders, it could be argued that they will only embrace a wider spread and increasing role of providing cognitive services to patients as long as this will give a competitive advantage and increase the return on capital invested in the business. Such an approach could, at some point, be at variance with the objectives of the composite NHS and other sections of the pharmacy profession. If a remuneration system precluded all profit from the sale and supply of medicinal products to the NHS and returned all discounts received by suppliers to the drug bill and not to the contractor, then it could be that the provision of cognitive services and the motivation to provide these would have to come from or be directed to a group other than the group currently and

collectively known as community pharmacy. That is, as suggested in the second paragraph of Chapter 4, a new NHS contract, which engaged different contractors from the current ones who had changed the focus of their business, would be required.

In summary, therefore, the remuneration system from the profession's and the patient's viewpoints must in some way reflect the aspirations and requirements of all three parties. If the profession is to change to achieve the current objectives of its members then the Government must adopt a contract and a remuneration system which encourages and even directs such change. If the patient is to have a higher regard for the profession, the profession must clearly state what services it can and should provide which are acceptable to the patient and make sure that the patient and the Government are convinced that the services offered ensure value and the health outcomes compatible with the resources expended.

CHAPTER 2.

AVAILABLE METHODS OF PAYMENT

INTRODUCTION

When a professional service involves only the supply of a product, or where it involves providing a service without a product being involved, the method of payment or reward is relatively straight forward. Where both are involved various problems and complexities arise.

According to Jacobs & Kirk, 1983 the complexities are varied [8] and are related to the system within which they operate [9]. The problems arise when the remuneration is required to reimburse the cost of the products supplied, reimburse the costs of acquiring replacement products, a return on the capital invested in holding a stock of products together with remunerating the provision of cognitive services. Cognitive services in this respect have come to mean the situation where the pharmacist uses his skill and knowledge to treat the patient and are regarded as separate from but complimentary to the provision of products. As will be seen different payment systems are available for these separate activities and one type of payment system is not appropriate for all activities [10].

It is important that a remuneration system gives incentives to provide the services required. Remuneration systems are also used to influence and possibly change the behaviour of health care providers and several studies have been made of these on professions other than pharmacy. There is no evidence of authoritative studies into this aspect of community pharmacy remuneration A task force of pharmacists, sociologists and health economists appointed by the RPSGB to investigate Pharmacy Practice Research and Development came to the conclusions in its report on January 1999 that since a high proportion of NHS pharmacy contractors rely on income from the retailing of non-pharmacy goods to retain and increase the market share of high street business, the opportunity costs of increasing R&D and pharmaceutical care is a greater constraint on community pharmacists than on other primary care practitioners [27]. This may be because the "person" (in legal terms) contracted to provide the service is only in the minority of cases a pharmacist. In the majority of cases he is a trader in goods as a single handed owner, a legal partnership, a

small incorporated company with limited liability or a large multiple retail trader incorporated as a public limited company (i.e. it is a "private" company) where the involvement in the provision of pharmaceutical services relates to a relative low percentage contribution to turnover and profit. The professional pharmacist who he employs and who provides the service is normally salaried. The factors which may influence the latter's professional behaviour is discussed in general terms in Chapter 5.

The motivation for the large public companies is to give the best possible return to its shareholders by keeping costs low and maximising its market share. This may involve the provision of high quality pharmaceutical care services but it is not necessarily so. Only if the latter services increased the return in capital invested, increased turnover, increase market share and an increase in the level of profit would such services be regarded by shareholders as legitimate and necessary activities of the company. At the present time the profit generated by the sale of pharmaceutical products is thought to be more important by such companies. In any event the NHS Pharmaceutical Regulations which detail which NHS services they are obliged to provide and how they are provided are primarily a more potent motivative factor than the remuneration system in deciding their behaviour. The latter should be compatible with the former. There is evidence that this is, at present, not the case (see Chapter 3).

On the other hand the pharmacist who is responsible to the patient for the provision of pharmaceutical care may be motivated by factors which are incompatible with those which will influence his employers. A conflict of interest exists and the former may increase the profession's present tendency towards patient orientated cognitive services and away from product orientated services (see Chapter 5).

The various methods used to resolve the difficulties of these companies, and at the same time, reward the professional in a way that is fair to him and to the provider of funds, (whether it be a government, an insurance company, another third party payer or tax payer) are discussed in the following sections.

This study primarily debates the issues within the current Regulations and not some new Regulations which may or may not be promulgated in the future.

TYPES OF SYSTEMS USED TO REMUNERATE HEALTH PROFESSIONALS

The types of systems which are available cover a wide spectrum. At one end is a salaried service. Pharmacy contractors, providing NHS primary care services in Scotland, are independent or corporate businesses, and it is the business which is remunerated by the NHS and not the individual professional. A salaried service, therefore, is considered inappropriate by the profession, although it may be attractive to the NHS if it reduced administration costs (see Chapters 9 and 10). However, this might not be the case since if the Government had to change to a salaried service, it would have to invest in the premises and stock of the pharmacies involved. This is unlikely. For these reasons, therefore, a salaried service is not likely to be given a high priority. Moving along the spectrum from a salaried service we first come to the capitation system, which has been used widely to reward NHS general medical practitioners since 1912 [3]. It is well documented that when it was introduced in 1912 in Scotland, it had been borrowed from the Danish and German sickness insurance schemes [28,29,30,31]. The capitation method of payment, which is sometimes referred to as a professional allowance, resembles a salary in that it is a regular payment made in recognition of the professional's continuing responsibility for the service provided to a given group of patients. In the case of pharmacy, the number of items dispensed could be regarded as a proxy for the number of patients involved. However, such a proxy would be more commonly associated with the case-payment system. The capitation system provides a fairly stable income and is based on a freely entered into contractual relationship between the individual practitioner and the agency which remunerates him. That is the pharmacy contractor is not forced by law, ethics or any other means into accepting the agencies valuation of his services. He is free to accept or reject the terms of the contract. Of course, if he does not accept them he ceases to be a contractor.

The next step in the spectrum is the case-payment method by which the practitioner is paid according to the number of patients provided with a service in a given period. The difference between the capitation and the case-payment methods is that in the former an annual payment is made for every patient registered with the practitioner, whether or not he requires and/or receives treatment, and the latter where the payment is only made for those patients treated. Thus with the capitation system there has been in medical practice a

tendency to recruit patients who need infrequent care and who are thus less demanding in time and energy. If pharmacy was organised as in Denmark and now in Ireland (see Chapter 8), the pharmacy would not be in a position to recruit patients except at the margin. The reason for this is that the location of pharmacies is determined centrally. This is designed to serve a given local population. Therefore, by definition the majority of patients will use the services of their local pharmacy.

The case-payment method can be regarded as a half way house between the capitation method and the next sector of the spectrum. This is payment by fee-for-service which is commonly regarded as the chief rival to the capitation method of payment. Remuneration by fee-for-service (or, as it is, sometimes, called 'item-of-service') is a method in which the contractor's payment is related to the actual individual service performed, priced according to a tariff or scale of fees of greater or less complexity.Where the practitioner sets the fee himself, competition between practitioners is in theory possible both in terms of the fee charged and the quality of the service provided. With a third party payment system, the third party can remunerate the practitioner for each item-of-service undertaken or the patient can pay the practitioner. In the latter case, the patient can reclaim all or part of the fee from the third party payer. There are, of course, minor modifications of this where, for example, the patient pays part of the fee to the practitioner and the practitioner claims the remainder from the third party. Where the number and location of pharmacies is determined centrally, patients would, in theory, have to travel some distance in order to benefit from any competition in fees.

In pharmacy practice, where a product is supplied, all or part of the remuneration can be provided by allocating a mark up on the wholesaler's or manufacturer's basic price. This method does not appear on the spectrum, and is not normally regarded as a suitable method of rewarding cognitive services. However it has, and in some cases still, plays an important part in pharmacy remuneration systems in some countries and there has been on-going debate over the last twenty years as to its suitability to pay for the changes which have occurred in the primary care pharmaceutical services.

There has been an increase in the provision of cognitive services where the knowledge and expertise of the pharmacist is directed to the use of the products and not on the product

itself. Such services are discussed below. They also include such abstract indirect services such as clinical audit.

The types of systems, therefore, which can be used to remunerate community pharmacists are as follows: -

(i) Mark up on purchase price of product.

(ii) Salary.

(iii) Capitation or professional allowance.

(iv) Payment per case or episode of service.

(v) An item-of-service fee.

In practice, all these systems have been used either singularly or in combination.

The system referred to under (i) above is normally used to reward those who are traders in products first and professional practitioners second. The system under (ii) above is normally used to reward those who are employed by independent practitioners or by one form or other of a corporate body. The systems referred to as capitation and professional allowance under (iii) above, payment per case or episode of service (vi above) and item of fee service (v above) are normally used to reward professionals who are independent practitioners; for example general medical practitioners in the Scottish NHS. It would be difficult to devise a system where public limited companies were paid a salary by the Government or a Government agency. It would not, in truth, be a salary but a "professional allowance" since it would not be paid to an individual practitioner but to his employer.

Therefore, the Government and the NHS in Scotland have normally used two basic types of payment systems for cognitive services similar to those involved in community pharmacy [3]. The first is where the contractor provides continuous responsibility for providing a service to the client (e.g. a salary or capitation payment). The second involves no such continuing responsibility (e.g. payment per case or episode of service or item-of-service fee). In the latter case, where the immediate task for which the fee is charged is completed, there is no continuing obligation on the part of the provider to continue to give a service. In short, the task for which the fee is paid is self contained.

DISCUSSION OF METHODS OF PAYMENT

Contracted NHS pharmacies are businesses and trade in products and increasingly in cognitive services. The payment system for these systems is usually different as they require to influence different types of behaviour. The remuneration system must recognise this. The following paragraphs attempt to examine the alternatives which would be credible in the NHS in Scotland.

In theorectical economics labour is paid for by wages, salaries or fees and capital by interest (otherwise referred to as 'return on capital invested'), or dividends.

Salary rewards labour for the time devoted to a task and, in some cases, wages operate in a similar way. The distinction between the two is semantic, in that manual labour is frequently rewarded by what is called wages and intellectual or white collar labour rewarded by salary. The time paid for in the former case is usually equated to an hourly rate. In the latter case it is usually referred to as an annual or monthly rate. However, in all other fundamental ways, both wage and salary rewards labour for the time the worker gives. The worker is normally given specific tasks (a job description) but how much time he devotes to each task is arbitrary. A fee on the other hand is a fixed monetary (or other tangible reward) for a fixed and defined task. The definition of the task is usually expressed legally (formally or informally) as a contract between the person requiring the task to be carried out and the person carrying out the task. The latter is rewarded for the successful completion of the task and not for the time devoted to it [32].

In most societies, it is normal for members of the professions to be rewarded by fees. Social standing may often be judged by the method by which one is rewarded for one's labour; fees are paid to the professions, and wages and salaries to the 'working classes'. Thus when professionals receive salaries or wages for their time terms such as 'stipend' or 'retainer' are frequently used to avoid using the terms “wage” or “salary”.

In some cases, the way wages are paid makes them more like fees. For example, some manufacturing industries pay their workforce by a method often called piece work. In this the workperson is rewarded for the completion of the task. Whilst they may be allowed a fixed sum per hour for their labour, they are also given a fixed time to complete a task or a

service. The taking of a longer time incurs a financial penalty to the worker and taking a shorter time incurs a greater reward or bonus. The system is generally disliked by labour, whilst management is usually in favour since the exact labour costs to produce, for example, a piece of equipment can be more easily forecast. It is ironic that, in practice, this method of payment has all the appearances of a fee that is favoured by the professions. It is intended to give the worker an incentive to produce more in less time. In the provision of health care this might not always be in the interest of the patient.

Investment of capital is rewarded by interest or dividend. It's value is related to the output generated by the capital and, therefore, is frequently referred to as 'return on capital invested'. Profit represents the amount generated by an activity undertaken by capital and labour, and is the difference between the total costs of providing the service or products and the price for which the service or product is sold. Labour and interest on capital borrowed and/or invested are both regarded as costs.

The selling of goods is essentially a capital based activity. Capital and labour produce the goods and the interest on the capital and labour invested (or risked) is recovered by a mark up on the cost (including the cost of capital and labour) of producing and distributing the goods. Profit is paid as interest or dividend to the investor of the capital, although the labour involved may also receive an interest or bonus from the profit generated.

As far as community pharmacy is concerned, the majority of professional services provided until comparatively recently were associated with the sale of goods. Consequently, the method of payment was normally a mark up on the goods sold. This mark up is usually expressed as a percentage of the wholesaler or "factory-gate" cost to the community pharmacy of the goods. The mark up normally reflects the costs involved in storing and distributing the products including the salary and wages of those involved in providing the services (if any) provided by the seller, and a return on the capital invested in the activity.

The situation in Scotland has been complicated by the fact that the mark up paid by Government to the pharmacy contractor is not a mark up on each individual product supplied but rather an on cost on the total volume of products (in cash terms) supplied in each month.

Thus a company or a pharmacist who owns a business may receive a rather complex system of reward. He will receive a mark up on the value of all the product supplied in a given period. This sum has to cover salaries, the cost of overheads and a return on the capital invested. He may also receive a fee for each item of professional service provided. In other circumstances he may receive no mark up but a fee for each item of professional service provided. This fee will have to cover the cost of salaries, the cost of overheads and a return on the capital invested. In the former case the level of this fee will be influenced by the amount of professional input which is reflected in the salary element of the mark up. It is further complicated where the owner is not a pharmacist or the pharmacist providing the service. In this latter case the owner may receive a mark up and/or fee and the pharmacist who actually provides the professional service may receive either a salary or fee. Usually, the employee receives the former and the self-employed the latter. In neither case will it have as a component the cost of the overheads incurred by the owner nor the return on capital invested by the owner.

If the sale of a product to the NHS (e.g. on a prescription issued by a medical or dental practitioner) and the associated services given with the sale of the product is financed by other than the purchaser (e.g. by a Government Agency) the practitioner or seller would expect a judgement to be made as to what the normal market in which he trades would pay for that product and/or service. The provider would wish to receive a mark up commensurate with the level of expertise involved and with the level of costs involved and a competitive return on capital invested. This gives an incentive to provide the goods and services, and attract and retain the required capital.

However, as the service element of the activities of the community pharmacist grows, the conventional mark up system may not reflect the correct proportion of the three elements (i.e. salary, other overhead costs, fee and return on capital invested) involved. For example, an investment of £1,000 in a product where the normal retail mark up of 30% is applied, will give a return of £300 . If a return of 5% on capital invested is the required target, this leaves a sum of £250 to meet overhead costs, salaries and fees. If there is a minimum service (and thus salary involved) this could after costs (e.g. overheads such as heat and light) are accounted for leave a fee of £200. Compare this with a product that costs £10. If all except the fee are the same as in the first example, but the professional service involved is considerably more, both in time and expertise, then the amount of the

fee could be regarded as totally inadequate for the service provided. The law and the ethics of the profession and indeed the NHS regulations require the pharmacist to provide at least the same level of service whether the product costs him £1,000 or £10.

Thus the remuneration system must provide an incentive to give a service of the type and quality which will not always be directly related to the profit generated by the mark up or on cost system.

The criteria by which an adequate remuneration system should be judged is, therefore, not easy to arrive at since there are several participants in the system who have different objectives.

If the critera are taken from the patient's point of view rather than that of the contracted pharmacy there is a danger that it will be too simplistic and not be sensitive enough to reflect what the patients really require and not what they think they require. For example, the patient may only want the prescription dispensed as quickly as possible and not appreciate that if the full benefits of the treatment with minimal adverse events are to be achieved then he requires more time spent with him than it takes to supply the product.

It is easy in theory to say that the patient requires a safe and efficient service. However, his perception of what that entails may be different from that of the professional pharmacist (and indeed the NHS) and this in turn may be different from the perception of the non-professional owner. The patient may not detect inadequacies inthe service until or unless a serious incident occurs.

Nevertheless these safe and efficient criteria have been used in this study and an attempt has been made to achieve a balance between the patient and providers perception of these terms.

The pharmacy contractor must receive an income which covers his costs and enables him to provide the service and the goods and to attract and retain the necessary capital to enable the business to survive and develop. The recouping of the costs he incurs must be sufficient to attract and retain pharmacists and pharmacy technicians with the required skills and knowledge. The market place for the latter covers the private and public sectors and is

international. The service he provides will be that required firstly by the Government of the day and secondly by the profession and thirdly and most importantly by the patient. These should, of course, be compatible with each other. In the current climate, the Government of the last two decades has not accepted that the services which the profession believes is necessary should have allocated to them new resources but instead be provided by a re-allocation of the current resources.

To be readily understood and accepted by the practising pharmacist as well as the owners (including the corporate owners of pharmacies) the remuneration system should reflect the level of expertise involved as well as the other costs required to provide the service.

In the recent report (February, 1999) to the Council of the RPSGB [33] on models of remuneration the working party suggested that the following principles should apply to the remuneration system namely:-

1. Any model should be able to demonstrate quality outcomes and value for money for the NHS. There needs to be a recognised method of measuring outcomes, which would determine the efficiency and value of the service within the model. The measurement of efficiency and outcomes are important from all points of view.

2. The advent of clinical governance within all areas of the NHS will require continuously improving levels of quality and the safeguarding of high standards of care. It is essential that this should be a feature of any new model.

3. Such models should seek to improve patient care through the extension of pharmaceutical care, continuity of care and the promotion of professional development.

4. Safeguarding public access to quality pharmaceutical services is fundamental in any restructuring. Any improvement in the accessibility of patients to pharmaceutical services is highly desirable. (It should be noted that this implies that the individual contractor should not receive a lower level of reward than the current system provides).

5. Any new mechanism for payments should encourage the improvement of standards in pharmacies and the development of services to benefit patients.

It further suggested that any models for remuneration should be tested against these principles by applying the following questions:-

1) Does it provide consistent quality outcomes?

2) Does it encourage new roles?

3) Does it facilitate continuity of care?

4) Does it optimise access to healthcare?

5) Does it improve standards in pharmacies?

In this study these principles have been interpreted by the application of the following practical measures. The system should therefore:-

1. reimburse accurately the cost of the purchase, storage and distribution of the products involved,

2. cover the cost of servicing the capital involved in carrying out the business and improving and developing the services involved (e.g. the provision of new equipment such as computers). It should be noted that the Government provides this latter type of capital for general medical practitioners but not for contracted pharmacies,

3. provide sufficient resources to employ professional pharmacists and pharmacy technicians of the necessary expertise, skills and knowledge,

4. provide the resources which enables the professional and technical staff to be given the financial and other incentives to provide the patient with a level of pharmaceutical care which ensures the products used or not used result in as safe and efficient treatment as possible. Payments for outcomes achieved could become increasingly relevant, (The needs of patients are discussed in Chapter 5),

5. in the judgement of the Parliament be within an affordable public expenditure,

6. provide a service which satisfies the patient in respect of its accessibility, safety, efficiency and effectiveness where and when it is required,

7. there is ideally no cross subsidy of the NHS business by the non-NHS business,

8. induces the existence of only the number of pharmacies needed to provide the NHS primary care service,

9. the various elements of the remuneration system are transparently equated with the cost of the provision of the cognitive services for which the community pharmacies are required to provide under the NHS contract.

There are some implications implicit in these criteria which require to be stated. The reason for this is that if a new system does not improve the rewards achieved under the present system then the contractors will have no incentive to continue to provide the services. They should, of course, have a choice of accepting what they believe to be unacceptable or resigning the contract. The Government has, therefore, to balance the probability of a reduction in outlets or depending on a service being provided by dissatisfied contractors.

In particular in this study it is implicit that :-

1. the financial stability of the majority of pharmacies should be maintained (criteria 2)

2. that the payment system should encourage the contractors to rigorously control their costs in providing the service (criteria 1 & 8)

3. that research on new remuneration models should be an ongoing commitment by the Government and the profession (criteria 6 & 7)

4. that the present method of discounting the cost of the products supplied should not be confused with the need to reward accurately the cost, effort and expertise involved in providing the required cognitive services (criteria 1,3,4, &9)

5. Since the majority of contracted pharmacies consider that the current rewards are inadequate, this criteria implies that there should be an increase in rewards under any new system (criteria 2,3,4,&9).

In considering how these criteria might be better met by models different from the current one, it must be remembered that the Secretary of State for Scotland is required by law to set the fees and allowances which will be payable. In doing so he must in Common Law act reasonably. Even if the majority of the profession and the majority of the pharmacy contractors agree that the Secretary of State's action is reasonable in setting the fees it is open to an individual contractor (who may be a corporate company) to challenge in a court of law the reasonableness of the action taken. If that contractor can show that he individually has been unreasonably treated he may well win the action. It is unlikely, therefore, that the Government will introduce overnight a radical new remuneration model which would adversely affect major contractors in the short to medium term. A gradual approach is, therefore, likely to be necessary. Taking all the above into account and for this reason the impact of any model on the short term profitability of contractors which the changes would produce is an important criterion in judging whether or not they were viable and credible options. This then is the tenth criterion and the most difficult to give an objective assessment of its impact on any given option because it is impossible to be fully aware of the precise financial position of every individual contractor. For this reason alone none is attempted in this study.

Chapter 5 concludes with clinical and patient orientated criteria. For convenience these are anticipated here for completeness of criteria used to judge or compare the various models explored.

1. The system would allow the pharmacist access to all relevant patient records.
2. The pharmacist would be accepted and integrated to the primary health care team.
3. The payment system relates to the pharmacist's responsibility for achieving the required outcomes with drug therapy.
4. The payment system reflected the complexity of each process required to enable the responsibility described in 3 to be carried out in a reasonable manner.
5. The patient should choose one pharmacy practice from which he/she would receive all services.

6. A system of measuring outcomes of treatments should be in place.
7. The treatment systems used should be firmly based on evidence derived from quality research.

CHAPTER 3

THE CURRENT SCOTTISH SYSTEM FOR REMUNERATING COMMUNITY PHARMACY CONTRACTORS

ALLOCATION OF RESOURCES BY PARLIAMENT

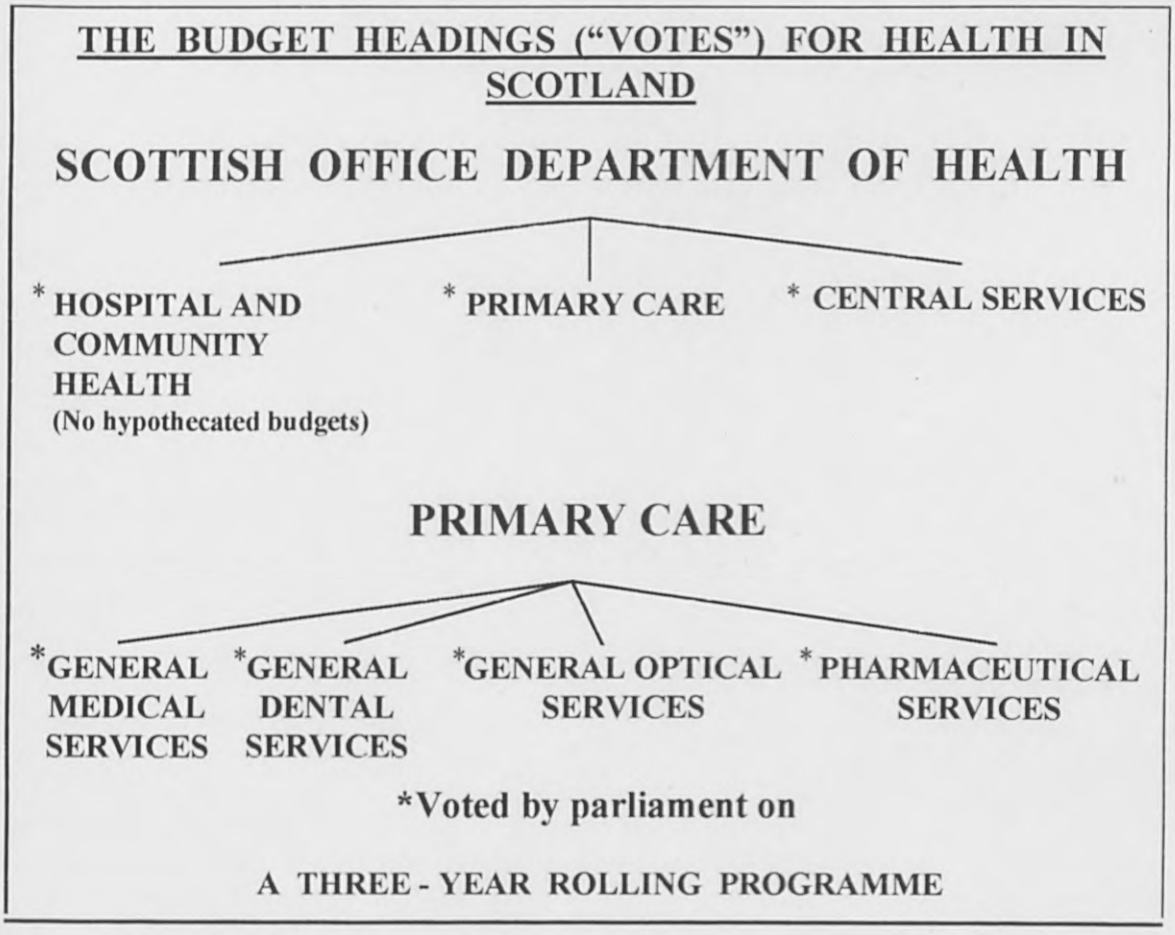
It is appropriate, at this stage, to explain the system currently used to remunerate community pharmacists in Scotland. It is necessary to note that the system in Scotland is, in many respects, different from the system in England , Wales and Northern Ireland.

Currently, the Scottish Office of the Government receives from the Treasury a Scottish Block voted by Parliament. The Barnett formula is used [34]. This involves receiving $^{11}/_{82}$ of what the English Departments of State receive for their programmes, where these programmes are managed separately in Scotland. These programmes, include the National Health Service, where the service [35] is administered and managed by the Scottish Office. These resources, together with an annually negotiated amount for special purposes, form the Scottish Block.

The Secretary of State then allocates annually from the Block to each of his programmes the resources which he believes are necessary. What is proposed is then voted on by Parliament. It follows that he can decide to spend more on health and less, say on education than the $^{11}/_{82}$ of the comparable English programme.

There are three main headings in the health vote. The first is the Hospital and Community Health budget (HCH), the second is Primary Care vote and the third Central Services. The latter includes public health, research and some other centrally funded services, such as the blood transfusion service (Figure 1).

FIGURE 1



In spite of the profession calling retail pharmacy by the term 'Community Pharmacy', it is not funded from the HCH budget. It is funded from the Primary Care budget.

The Primary Care budget has itself four vote heads, namely General Medical Services, General Dental Services, Ophthalmic Services and Pharmaceutical Services. The latter resources the spending on drugs, prescribed dressings and appliances (prescribed, that is, by Regulations made under the Act), and the remuneration of pharmacy and appliance contractors. There is no separate vote heads for the drugs bill and remuneration. In effect, therefore, the pharmaceutical vote is for the retail cost of the drugs, dressings and appliances. This means that to the wholesale the cost of drugs, dressings and appliances is added an amount of money to pay the pharmacy contractors, for supplying the products, and for any professional services which are allied or associated with that of the supplying service at the retail level. This latter sum is colloquially known as the global sum.

Regulations are required to enable cognitive services to be provided. These include keeping patient medication records. The resources for these also must come from the global sum. The NHS spend on the primary care vote head (the family health service) in the years 1995/96, 1996/97 and 1997/98 are in Figure 2.

FIGURE 2

PRIMARY CARE (FAMILY HEALTH SERVICE) EXPENDITURE

	1995/96		1996/97		1997/98	
	£'000	% of total	£'000	% of total	£'000	% of total
Pharmaceutical Services	510,501	51.70	550,559	52.35	599,481	53.16
General Medical Services	303,145	30.70	19,959	30.42	336,372	29.83
General Dental Services	147,025	14.89	152,664	14.52	162,192	14.38
General Ophthalmic Services	26,108	2.64	28,186	2.68	29,288	2.60
Miscellaneous (refund of patient charges not due)	666	0.07	285	0.03	282	0.03
TOTAL	987,445		1,051,65		1,127,615	
Source Hansard 16/1/98						

The amount and percentage of the pharmaceutical services vote devoted to remuneration appears as Figure 3.

FIGURE 3

REMUNERATION OF PHARMACY CONTRACTORS AS A PROPORTION OF THE NHS IN SCOTLAND PRIMARY CARE PHARMACEUTICAL BUDGET

1995/96		1996/97		1997/98	
£'000	%	£'000	%	£'000	%
72,420	14.08	75,505	13.46	77,581	12.12
Source Hansard 16/1/98					

The gross sums which appear in Figure 3 are broken down into the various fees and allowances and appear in Figure 4.

FIGURE 4

	1995/96		1996/97		1997/98	
	£'000	%	£'000	%	£'000	%
Global sum	**72,420**	**100**	**75,505**	**100**	**77,581**	**100**
Professional allowance	21,805	30.0	22,336	29.0	22,458	29.0
Dispensing fees	45,503	63.0	47,670	63.0	49,737	64.0
Controlled Drug fees	1,250	1.8	1,553	2.0	1,277	1.6
Period of Treatment fees	2,123	3.0	2,480	3.3	2,769	3.4
Essential small pharmacies	142	0.2	132	0.3	129	0.15
Others (including urgent fees, on cost on stock orders, measured and fitted fees for appliances, oxygen fees patient medication records, and residential homes fees	1,597	2.0	1,735	2.4	1,627	2.0
Source SPGC April, 1998. NB The sum of the individual fees does not always equate with the global sum allocated due to an overspend on fees.						

The rise in dispensing fees is accounted for the rise in the prescriptions dispensed and the disproportionate rise in the number of dispensings due to the increase in serial dispensing of prescriptions (see Figure 5).

FIGURE 5

NUMBER OF PRESCRIPTIONS DISPENSED AND THE CONCOMITANT NUMBER OF DISPENSINGS			
	1994/95	1995/96	1996/97
PRESCRIPTIONS	49,818,426	51,252,742	52,913,535
DISPENSINGS	51,711,000	54,423,284	56,965,496
Source SPGC,1998			

The figures for 1997/98 are not yet available

The NHS Pharmaceutical Regulations[36] state that the Secretary of State shall determine the rates to be paid to the two types of contractors which provide pharmaceutical services, pharmacy and appliance contractors, after having consulted a body which the Secretary of State recognises as representing the majority of contractors. The Scottish body is the Scottish Pharmaceutical General Council (SPGC). It is elected by the pharmacy contractors and does not represent appliance contractors. In reality, there is a greater element of negotiation than the word "consulted" would seem to imply. The actual amount allocated to the global sum is, in theory, negotiated. However, the Scottish Ministers cannot normally increase the Pharmaceutical Vote, (including, by definition, the global sum), after it has been agreed by Parliament, which happens before the negotiations can commence. The global sum is not voted separately by Parliament.

How the global sum is to be paid out is negotiated after the quantum is determined by the Government either by negotiation or imposition. An earnest attempt is made to set fees allowances and other methods of reimbursement in such a way that the global sum will not be over or underspent in the single fiscal year to which it applies. If it is overspent, the overspend becomes first call on the global sum in the following year. If underspend, then this underspend is, in theory, added to the global sum of the following year. It is in theory only since this system was introduced in 1988, there has never been an underspend. The current (March 1997) fees appear in Appendix 1.

The actual amount of the fee allocated is purely arbitrary and is an exercise in achieving the predetermined outcome of expenditure. There is no measured relationship between the work, time, effort, knowledge and skill involved in any defined task and the fee paid. It is, therefore, difficult to assign some of the methods discussed in Chapter 2 since it would be a purely semantic exercise. For example, the standard professional fee of 88p is paid for every item dispensed on a prescription (i.e. a dispensing), except for those items which require extemporaneous dispensing. The 88p is not decided by measuring the work involved. It is not, therefore, a true item-of-service fee nor a case fee. The extemporaneous and Controlled Drug fees are closer to an item-of-service fee but they are, similarly, arrived at arbitrarily. In the early days of the NHS, there was an element of measurement in the setting of all these fees (see Chapter 7). The professional allowance is, in effect, a salary, and is roughly aligned to the number of prescriptions dispensed in any

one month, of course, the allowance is paid to the contractor and not to the pharmacist. The mark up system has largely disappeared, but is still applied to Stock Orders. (Stock Orders are those items which a general medical practitioner orders from a pharmacy for use in his surgery and for emergency use). The fee for keeping patient medication records and for giving advice to residential homes is either a true professional fee or a case payment but, again, it is not calculated from basic principles, but is set by arbitrary means. It will be seen from Appendix 1 that from April 1997 it is to be disbanded and be incorporated into the professional allowance without the latter being increased.

The pharmacy contractors are reimbursed the wholesale cost of proprietary medicines and the cost of generic products at the rate published in the Drug Tariff [37]. The reimbursement cost of allowed dressings and appliances is also published in the Tariff. In both cases, an averaged discount rate (arrived at from a statistical sample of discounts received by all contractors on the cost of products purchased) is deducted from the reimbursement costs. The discount is not applied to each item supplied.

The fees set by the Secretary of State are also published in the Drug Tariff, as are all the relevant conditions of the NHS Pharmacy Primary Care contract. The Secretary of State is required by Regulation to publish the Drug Tariff at least once per year, although amendments are published monthly.

Patients, who are not exempt because of age or diseases specified in the Regulations, pay a fixed prescription charge to the pharmacy contractor for each item dispensed. The amount of such charges collected is deducted from the payments of fees and the reimbursement of the cost of medicines, etc., supplied by the contractors. However, the monies raised is set against the drug bill and not against the pharmacist's remuneration.

Two other relevant aspects of community pharmacy remuneration require to be noted. The first is that the pharmacy contractors receive their remuneration one month in arrears and the payment is an estimate of what 90% of their payment is likely to be. The following calendar month the difference is made good. This means that the business has to finance any interest due on outstanding debt to suppliers and to lenders. It could be argued that the contractor delays paying his supplier until he receives his due. However, most suppliers require payment within thirty days if a discount is to be granted.

The other factor which is not directly related to pay is that to obtain a new NHS contract a pharmacy contractor has to submit an application to the Health Board. The Pharmacy Practice Committee (PPC) of the Board will consider the application on only two subjective criteria, namely whether a new contract is necessary or desirable. If a current contractor wishes to re-locate, he must also apply to the PPC and the move will be granted only if the same population as at present is to be served in the future. This facility has been used to enable, for example, a new supermarket to buy out a contract (located in the near vicinity to the new supermarket) and re-locate it in its new premises. It should be noted that a pharmacy may be registered with the law and be prepared to provide a full service including an NHS service, but it will not be able to provide the latter unless the PPC of the Health Board decides that, for NHS purposes, it is necessary or desirable [36].

Whilst guidance issued to Health Boards suggested the use of some objective criteria, the fact is that the decision, in law, is based on a subjective judgement. We shall see that in other countries (e.g. Denmark and Ireland) objective criteria (such as number of patients or population served) are used.

There exists a payment to what are termed Essential Small Pharmacies. These are pharmacies whose NHS business is low and whose existence is considered essential by the Health Board, the patients and the profession. It is, in effect, a subsidy to these small pharmacies from those which are larger.

Community pharmacy remuneration in Scotland is very complex. It is a complicated mixture of mark up on the cash value of products supplied on Stock Orders, pseudo item-of-service fees, case payments and allowances paid by a third party to the owner i.e. not to the pharmacist providing the service. In addition, the owner receives directly from the public, a mark up, but no fees or other allowances, on the health products sold outwith the formal health service contract. In turn the owner pays a salary or a fee to an employed or contracted pharmacist who provides the professional service. This latter will equally apply if the pharmacist providing the service is the owner.

It is further complicated by two facts. Firstly an increasing number of third party payers, including the UK Government, pay no actual mark up on products supplied to patients of

the health service. Secondly (as was stated in Chapter 2) there is an expansion in the professional services to NHS patients where the sale of the product is not involved or is only tangential to the dispensing (supply) service provided, e.g. the keeping of patient's medical records. These new services are commonly known as 'cognitive services'. However, the true cost of providing the current cognitive services has never been directly measured.

It is impossible to say why there is a resistance by Government to paying a mark up. It is usually assumed to be a public relations' exercise, in order to imply that the contractor does not receive a profit on NHS drugs supplied. If, in fact, this was the case, the contractor would go out of business. This ploy does have some merit, however, since it ensures that those who supply high cost items, do not receive higher uncovenanted fees than those who are required to supply low cost items. In the end, the real reason is believed to be that the Government was concerned that if the drug bill increased at a greater rate than forecast the budget for the pharmacist's remuneration would increase at a proportional rate which, at one time circa the early 1980s, would have been greater than the permitted increase in public sector pay.

PROBLEMS WITH CURRENT AND PREVIOUS SYSTEMS OF REMUNERATION.

It is easy to say that the main and indeed the only problem with the current remuneration structure is that the overall sum available (the global sum) is insufficient to give a realistic reward to community pharmacies, and that therefore to increase it would solve the problem. Whilst an increase greater than inflation would provide resources to pay for cognitive services (without reducing the payments for the sale and supply of the products) could assist in the transition for a product to a patient orientated service, such action would not in itself solve the problem.

When the cost plus contract was in existence there was a quantitative method which measured the actual costs incurred in providing the service together with a negotiated level of profit (see Chapter 7). There was a separate balance sheet to cover the activities involved in supply. The total sum allocated by the Government for the service was, therefore, based on fact and its adequacy or otherwise was confined to arguments as to the

accuracy of the facts. When it was removed there was no objective method to assess whether or not the total sum was adequate. When the cost-plus contract was stopped, the Government introduced a subjective measure of the adequacy of the global sum. It maintained that if recruitment, retention and motivation of Contractors was buoyant, then the global sum must be adequate [38]. In 1990, when the removal of the cost plus contract was first felt by contractors, there were predictions that the result would be a loss of 2,000 pharmacies. In 1997, there are more pharmacies than there were in 1990 [39]. Clearly the removal of the cost plus contract has not had such an adverse affect. Neither the Government nor the profession has any objective information on why these predictions did not occur. It is thought by many, however, that a reduction in unit costs, an increase in cross subsidisation an increased reliance on unrecovered discounts and an increase in multiple pharmacies in large part ameliorated the effects of an arbitrary arrived at sum to resource the services. In support of this subjective evidence it is clear that there are more multiple pharmacies and large groups of pharmacies, thus reducing unit costs - as the Government intended - and small independent pharmacies have greater difficulty than the larger groups in achieving an income which they believe is necessary to remain viable and progressive. Thus they have to cross-subsidise to remain viable. This may be due more to the discount which large, vertically integrated multiple retailers receive on products purchased and which are greater than the discounts recovered by the Government, than on the adequacy of the actual remuneration for cognitive services themselves. The post cost-plus contract system does not purport to give any incentives to contracted pharmacies to provide any services other than to dispense prescriptions accurately and expeditiously. Its prime aim is to reimburse the costs of providing this latter service. Indeed the system only marginally pays for some cognitive services such as the keeping of patient's medical records and the giving of advice to residential homes. There is no evidence that the level of payment for these particular cognitive services themselves have ever been tested for their adequacy in relation to the costs of completing the tasks they are intended to reward.

Rational argument for change or increases in resources is difficult as there is no real measure of even the approximate cost of providing cognitive services . As the editorial in the Pharmaceutical Journal [40], correctly states pharmacy is an unusual profession in that even as a trader and a provider of professional services, the practitioner / trader cannot generally fix fees himself for these services. The NHS makes available a cash limited global sum which has to be spread amongst all pharmacies and all their activities to provide all

NHS pharmaceutical services. The number of pharmacies is not controlled centrally. Manufacturers fix the margins or mark up on medicines which are sold. The editorial [40] (see page 42 above) suggests that a mark up of 33.3% would allow cognitive services to be provided and give an adequate commercial return on the distribution of the products. A mark up of 23.5% which was then being offered by manufacturers on some newer Pharmacy Only Medicines (P) was not. This brings us back to the problem associated with paying for the cognitive aspects of the professional services by a mark up on the product. Such a system does not take into account that it is, in fact, the retail price which will dictate how much resource is available to provide cognitive services rather than a measurement of the skill and expertise required to provide a particular and specific cognitive service. The outcome in improved health which may be achieved by the provision of such a service does not enter into the remuneration equation.

This mixing of the mark up on the wholesale price of the product and the separate payment for cognitive services is further emphasised by Brinning [41] and the editorial in the PJ [42]. The former suggests that in England and Wales most pharmacies received a decrease in income for professional services in the fiscal year 1990/91 compared with that received in 1989/90. One of the reasons was that the measurement of discounts actually received resulted in a greater increase in the discount scale applied particularly as it effected small pharmacies. It is not argued here, that the Government's approach was right or wrong. It is, however, argued that the circumstance arose because the mixing of the payment for both supply and cognitive services into one method of payment was the cause rather than the result. No distinction was being made in 1990/91 between the two separate purposes of the services provided by community pharmacies. In the 1950s, 60s and indeed the 70s, the payment for professional services was calculated separately from that for the supply of the products. This is not the case in the 1990s.

It is further argued here that the global sum (which in effect is the mark up element of the Government's primary care drug bill) is an integral part of the 'drug bill' (i.e. the drug bill is the retail cost of medicines, and the global sum is that part of it used to pay the retailer). Consequently it is not an independently arrived at or a resource voted by Parliament to pay for pharmaceutical care services which are separate from, or only tangentially associated with, sale or supply of products (see above).

With reference to the suggested criteria against which the remuneration system should be judged in Chapter 2, the current system does not :-

1. Accurately or adequately reimburse the price of the costs incurred in the purchase, storage and distribution of the products involved unless the contractor receives discounts significantly greater than those recovered by the Government.

2. Equally it is claimed that it does not adequately service the capital involved in providing the services required unless the discounts received are greater than those recovered by the Government or there is a significant degree of cross-subsidisation.

3. The resources to remunerate the professional staff for NHS purposes alone are insufficient without cross-subsidisation and the receiving of enhanced discounts.

4. The professional and the owner receives no direct incentive to increase the level of pharmaceutical care which the Government, the patients and the profession believe to be necessary and which is provided in the hospital service.

5. It does, however, usually satisfy the criterion that the remuneration is in line with the Government's public spending objectives.

6. The patient receives a pharmaceutical care service in the primary care sector which is of a lesser standard and of less quantity than that received in the secondary care sector even though it is contended that the latter itself is less than optimal.

7. There is an unacceptable essential level of cross-subsidisation of the NHS business from the non-NHS business.

8. Since the remuneration system progressively reduces unit costs and rewards the dispensing of increasing number of prescriptions from the same premises the system does not ensure that pharmacies are located where the NHS and patients require them. It also results in several pharmacies competing for retail trade in commercially attractive locations at the expense of the NHS outlets in less attractive locations. It may also result in more community pharmacies than required by the NHS and patients.

9. The various elements to the payment system bears no transparent direct relationship with the various services provided. Payments are averaged and therefore not targeted to need.

10. The short term profitability of pharmacies depends on their size, the number of prescriptions dispensed and the level of discount received. If does not depend on the outcome of the cognitive services provided.

The present State payment system has a long history (see Chapter 7). It has evolved from a cash limited sum per patient for products and services, via a mixture of a normal commercial reward for supplying the product plus a fee for professional effort in dispensing through a cost plus contract, where the cost of providing the service was calculated and reimbursed as a mark up on the cost of the products and professional fees, plus a small profit for commercial risk. Now it has a cash limited sum for supply and cognitive services alike, paid in a manner related to the volume and added value of the products supplied, and not related to the volume and value of the cognitive services. A radical change in philosophy would seem to be required if community pharmacy is to provide pharmaceutical care and continue to retail viably medicines on behalf of the NHS.

CHAPTER 4

MOTIVATING PHARMACISTS

INTRODUCTION

It was suggested in Chapter 1 that successful remuneration models should provide the correct incentives and avoid the wrong disincentives for community pharmacists and for patients. This could be expressed as a principle and an objective, namely that a remuneration system should provide a correct and acceptable motivation for community pharmacists to produce an effective, efficient and value for money care service for their patients. However, such motivation is not solely provided by pay.

It is difficult to resolve what single motivation factor could be used to make community pharmacy provide pharmaceutical care as now practised in the hospitals in Great Britain and increasingly in the community practice in USA and other countries in the world (e.g. Canada, New Zealand, Ireland and many others - see Chapter 8). Owners of businesses would claim that a more realistic (in their view) return on capital invested, a higher percentage margin on the products supplied together with higher fees to enable more than one pharmacist to be employed is required. The practising pharmacist would probably wish for an increased status within the primary health care team and a more direct application of the full provision of pharmaceutical care to each individual patient (see Chapter 5). It is by no means certain that the latter can be so motivated in such a way even if the contractors return on capital invested was increased or if the percentage margin on the products was also increased. The content of the contract would also have to be altered so that the contractor was obliged to provide services the execution of which motivated the pharmacist who provides them.

Before discussing the history of the remuneration systems and the models of methods of payment presented in this study, it would be prudent to look at the various theories of motivation and attempt to assess whether the present system used for community pharmacy is deficient or flawed and whether the models presented would be likely to enhance motivation.

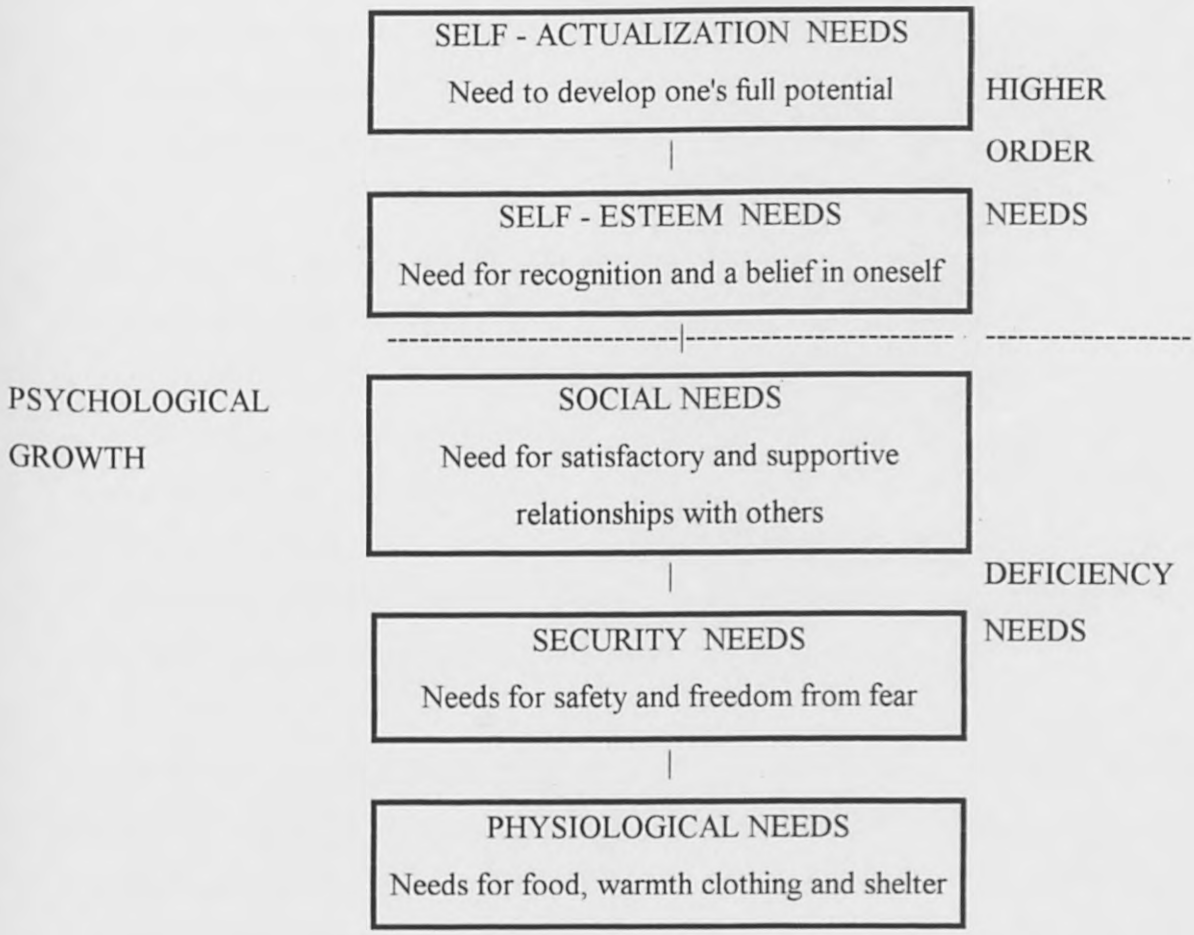
MOTIVATION THEORIES

Motivational theories can be divided into two categories, termed, *content* and *process.* These terms have been used in psychological studies of motivation and are described in relation to professions (and others) by Adams and Berkowitz [43] The former assumes that all individuals possess the same set of needs; thus these theories tend to be prescriptive in nature, since by assuming people have similar needs they are also recommending the characteristics that ought to be present in all jobs. *Process* theories, on the other hand, stress the differences in people's needs and focus on the human cognitive processes that create differences between individuals.

There are several *content* theories. The simplest and most influential is that outlined by Maslow [44]. He suggested that there is a hierarchy of needs up which people progress. When an individual satisfies a need at one level in the hierarchy, it ceases to motivate his behaviour: instead the individual is motivated by the need at the next level of the hierarchy. For example, at first individuals are motivated by physiological needs such as hunger and thirst. If these are met then security needs such as shelter and protection become the major influence on an individual's behaviour. These are termed *deficiency needs.* Figure 6 shows that this progression ultimately leads to behaviour motivated principally by the needs (termed *higher order* needs) to realise one's full potential, which Maslow termed the need for *self-actualization.* Maslow suggested that due to the uneven distribution of satisfying work only a very small proportion of the population reached this level. Thus, *self-actualization* is, for most individuals, a need which will motivate their behaviour throughout their lives.

FIGURE 6

MASLOW'S HIERARCHY OF NEEDS



It has been argued by many over the years that the community pharmacist as a professional practitioner has not reached his full potential. It is further argued that the skill and knowledge which he possesses is underused by society and by the NHS [45]. It can also be argued that since there is virtually no unemployment in the profession, members have no unsatisfied *deficiencies needs*. This is further emphasised by the fact that few, if any, community pharmacies go bankrupt. Thus Maslow's theory makes one important point as far as the current community pharmacy is concerned, namely that in prosperous societies the need for *self-actualization* becomes a key motive.

If there existed in the NHS an organisational structure for community pharmacy which stimulated and encouraged a greater use of the skills and knowledge of the pharmacists, then it would appear from this theory that a remuneration structure which was compatible

with such an organisation would be acceptable. Such a combination of organisational structure and remuneration method would assist the pharmacists to achieve a state approaching *self-actualization.*

There are other *content* theories in existence. For example, the theory known as the Existence, Relatedness and Growth (ERG) theory [46] provides reasonably reliable methods to *measure* needs which it suggests Maslow's theory does not.

The ERG theory proposed by Alderfer [46] suggests that an individual's needs can be divided into three groups as detailed in Figure 7. This theory differs from that of Maslow's in several important respects. Maslow's theory proposes progression up an hierarchy whilst Alderfer suggested a continuum from *existence needs* to *growth needs.* He argued that it was possible to move in either direction. This means that if *growth needs* become difficult or impossible to meet, *frustration regression* occurs, causing individuals to concentrate on fulfilling their *relatedness* and their *existence needs.* Unsatisfied needs, therefore, become less rather than more important, whereas Maslow proposed the opposite.

In the present context, if community pharmacists are prevented from satisfying their *growth needs* they will concentrate on complaining about *existence needs,* including perceived low or unsatisfactory pay. This is partially confirmed in a recent study by Willet and Cooper [47], who found that perceived low remuneration was a cause of stress in community pharmacy.

FIGURE 7

ERG MOTIVATION THEORY

1. *Existence needs,* which include nutritional and material requirements. At work, working conditions and pay would fall into this group.

2. *Relatedness needs,* which are met through relationships with family and friends and at work with colleagues and supervisors.

3. *Growth needs,* which reflect a desire for personal psychological developments.

Another notable difference between these theories, as far as pharmacy practice and remuneration is concerned, is the importance to individuals of satisfied perceived needs. Whereas Maslow argued that when satisfied a need becomes less important to an individual, research based on Alderfer's theories has found that *existence, relatedness* or *growth* needs actually become more important when satisfied [48]. This means, for example, that team working arrangements and fair wages (i.e. as agreed between worker and employer), which satisfy *relatedness* and *existence* needs, can continue to motivate employees and are not necessarily superseded by *growth* needs.

This conclusion is, on the face of it, in direct contradiction to the conclusion drawn in Maslow's work [44] as regards community pharmacy.

However, this need not be so. If pharmacists are not satisfied that their *existence* and *relatedness* needs are being met in community pharmacy practice at present, then *frustration regression* will cause them to concentrate on pay and working conditions as well as or in place of *self actualization* or *growth* needs.

To pursue this line it is necessary to explore the possibility that a refinement of the Maslow and Alderfer's approach by Mumford [49] in 1977 may have produced a more conclusive answer to the motivation required to satisfy the current perceived frustration (and presumably, unfulfilled needs) of community pharmacists.

Mumford suggested that workers have the needs detailed in Figure 8. There is an assumption that employees do not simply see their job as a means to an end, but have needs which relate to the nature of their work.

If this assumption is correct in community pharmacy practice, then the *frustration regression* apparently being experienced may be due to the nature of the work. It may well be that community pharmacists do not see more or higher pay for an expanded role as their main need, but rather that the nature of the new or expanded role will better satisfy their *knowledge needs, control needs, psychological needs, task needs* and their *moral needs* and that higher pay will be an expression of need fulfilment rather than meeting only an *existence need.*

FIGURE 8

MOTIVATION NEED (BY MUMFORD 1976)

1. *Knowledge needs* - work that utilizes their knowledges and skills.

2. *Control needs,* which are satisfied by the provision of information, good working conditions and high-quality supervision.

3. *Psychological needs,* such as the needs for recognition, responsibility, status and advancement.

4. *Task needs,* which include the need for meaningful work and some degree of autonomy.

5. *Moral needs* - to be treated in the way that employers would themselves wish to be treated.

A further content theory, known as Herzberg's two factor theory [50] is worth considering as it may be directly relevant to community pharmacy, since the original work was carried out with professional groups such as accountants and professional engineers whereas the previous theories used manual workers as the research sample. The original research used what is known as the critical incident technique. This involves asking interviewees to talk about occasions when they felt either particularly satisfied or particularly dissatisfied with their jobs. Two sets of incidents emerged from this process. The first involved achievement, advancement, recognition, autonomy and other intrinsic aspects of work. Because they represent sources of satisfaction, they were termed as "Motivators". The second set of incidents concerned working conditions, salary, job security, company policy, supervisors and interpersonal relations. This set was termed "Hygiene" factors. These latter were described as sources of dissatisfaction by the sample interviewed. It would

appear from this study, therefore, that job satisfaction and job dissatisfaction seem to be caused by a different set of factors. The presence of "Motivators" in the workplace caused enduring states of motivation in employees. Their absence, however, did not lead to job dissatisfaction. "Hygiene" factors, on the other hand, produced an acceptable work environment, though not an increase in job satisfaction or involvement with the job: their absence (e.g. perceived low pay), however, caused dissatisfaction. Thus "Motivators" reflected people's need for self-actualization, while "Hygiene" factors represent the need to avoid pain (see Figure 9).

FIGURE 9

HERZBERG'S TWO FACTOR THEORY OF MOTIVATION

MOTIVATORS	HYGIENES
Responsibility	Supervision
Recognition	Salary
Promotion	Company policies
Achievement	"
Intrinsic aspects of the job	Relationship with colleagues

This theory goes further, however. As well as describing employees needs, it indicates how people's jobs can be redesigned to incorporate more 'Motivators' (see Figure 10).

FIGURE 10

HERZBERG'S PRINCIPLES OF VERTICAL JOB LOADING

PRINCIPLES	MOTIVATORS INVOLVED
Increasing employees' autonomy while retaining accountability.	Responsibility and achievement
Increasing the accountability of employees for their own work.	Responsibility and recognition
Providing employees with a complete natural unit of work.	Responsibility, achievement and recognition
Making performance feedback available to employees.	Recognition
Introducing new and more difficult tasks to employees' work.	Growth and learning
Assigning employees specific or specialized tasks at which they can become expert.	Responsibility, growth and advancement

Later studies have suggested flaws in the theory and in particular the independent effect of "Motivators" and "Hygiene" factors. At least one study [51] has demonstrated that both can be related to job satisfaction and job dissatisfaction. It has been suggested that because professionals were used (i.e. accountants and engineers) a middle class bias exists in the Herzberg two factor theory.

This last fact, however, would not necessarily invalidate the Herzberg theory as far as community pharmacists were concerned, since generally community pharmacists are regarded as middle class..

All the process theories (see above) have in common an emphasis on the role an individual's cognitive processes have in determining his or her level of motivation. The major process theory, known as the equity theory, assumes that the most important cognitive process involves people looking around and observing what effort other people

put into their work and what rewards they receive, and comparing the ratio of these with their own. People can also compare their energy-reward ratio with one which they experienced at another point in time. (That is things are not as good, or as bad as they used to be). Equity theorists assume that this social comparison process is driven by our concerns with fairness or equity. This certainly appears to be relevant to community pharmacy since the Pharmaceutical Journal frequently publishes letters to the editor containing complaints about the fairness and /or equity of their effort, knowledge and energy to reward ratio compared with plumbers, hospital pharmacists, general medical practitioners and in particular dispensing general medical practitioners, and how, in the old days, community pharmacy was more rewarding in terms of job satisfaction and pay [47]. These letters perceive others as giving, at least, a similar input and often one which was less (effort, qualification, skill level, seniority) but receiving dissimilar outcomes (pay, advancement, fringe benefits) to themselves, and that the ratios now favour the others. Therefore, they regard themselves as underpaid and thus they experience inequity, which is assumed to be a sufficiently unpleasant experience to motivate changes in either their behaviour, or their perceptions, or both (Figure 11).

FIGURE 11

THE CONDITIONS OF EQUITY AND INEQUITY DESCRIBED BY ADAMS (1965)		
	MYSELF	**YOURSELF**
EQUITY	Inputs (100) Outcomes (100)	Inputs (100) Outcomes (100)
INEQUITY (Underpayment)	Inputs (100) Outcomes (100)	Inputs (100) Outcomes 125)
INEQUITY (Overpayment)	Inputs (100) Outcomes (125)	Inputs (100) Outcomes (100)

Thus, people perceive effort and reward not in absolute terms but in relative terms [52]. Community pharmacy contractors, however, have to endure two comparative ratios. That is they compare themselves with both other retail traders and with other health care professionals. There is a suggestion that the current remuneration system requires them to

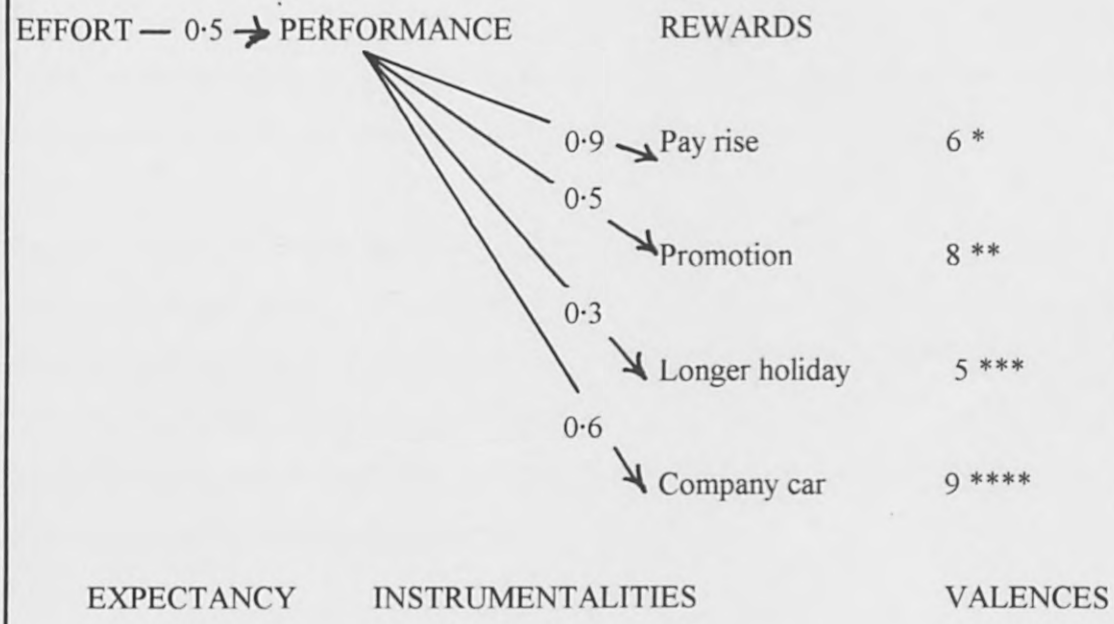
function as the latter but does not assist them to survive in the market place as the former. In the longer term this conflicting situation may not be sustainable. In this respect bottom up model four (see Chapter 9.) may give a possible answer to continuing survival in the short to medium term, until a longer term solution is evolved.

It is true that community pharmacists perceive their ratio to be inequitable and have striven to change their behaviour [26]. For example, they wish new and expanded roles not only for their own satisfaction but also to improve the care given to patients. It may also be that they presume the latter will change the patient's and the public's perception of their usefulness, and as a consequence, their ratio of effort to reward will become comparatively more equitable [53].

One process theory which could be used by the Government to assist in this process is the Valence, Instrumentality and Expectancy (VIE) theory. The origin of this theory is a study by Vroom and published in 1964 [54]. This study argued that what was crucial to motivation at work was the perception of a link between effort and reward. Perceiving such a link could be thought of as a process in which the community pharmacist calculates first whether there was a connection between effort and performance, (Vroom described this as expectancy), then the probability that valued rewards (Vroom described these as valences) would follow from high performance, which Vroom described as instrumentality. He argues that the motivational force of the job, can be calculated mathematically if the expectancy, instrumentality and valence values are known (see Figure 12). In this Figure the study referred to was carried out on a female volunteer.

FIGURE 12

THE VIE SYSTEM



The VIE model of motivation. In this example the individual perceives only a 50 per cent change of increased effort leading to increased performance. She has ranked four rewards on a + 10 to - 10 scale and has estimated the probability on increased performance producing each of these desired rewards. The motivational force of the job - the effort she is willing to expend on it - is calculated by adding the products of the valence x instrumentality calculations and multiplying the total by the expectancy value. Thus (0·9 x 6) + (0·5 x 8)** + (0·3 x 5)*** + (0·6 x 9)**** = 16·3 and 16·3 x 0·5 = 8·15. This figure can be used to predict some criterion of job performance - a supervisor's assessment or more reliable measures, such as sales figures. The figures 0.9, etc., were provided by the individual concerned.*

It would be possible to carry out a research project to identify how different options for community pharmacy practice scored using this method. Therefore, it is proposed that such a project should be attempted.

SUMMARY

It is not known if the Government has considered introducing formal motivating procedures to improve the NHS pharmaceutical practice. The current reliance on a simple, subjective, economic measure which could be expressed as "if enough of them want to do it, then the rewards they receive must be adequate" does not seem designed to improving the outcomes in health care objectives where medicinal products are employed.

There are theoretical models available that could be used as described in this Chapter. However, it is clear that mechanisms, which would motivate professional pharmacists, may not be compatible with those which motivate the management of corporate companies. It is for this reason that a pragmatic model (bottom up model four in Chapter 9) is studied since it is possible that it could meet the motivation needs of both of the stakeholders in the NHS primary care pharmaceutical service.

CHAPTER 5

DEVELOPMENTS AND CHANGES IN PHARMACEUTICAL PRACTICE INCLUDING THE RELEVANT ASPECTS OF WARD / CLINICAL PHARMACY AND PHARMACEUTICAL CARE IN COMMUNITY PHARMACY IN SCOTLAND.

PREAMBLE

We have seen that the current NHS contract and the resulting remuneration system is becoming increasingly incompatible with the concept of pharmaeutical care[11]. Pharmaceutical care, although a relatively recent concept, has not emerged overnight. It is the current definition of pharmaceutical practice which has evolved over the whole world as the community pharmacist's expertise in the making of medicines (and his consequent concentration on the product) changing to an expertise in the efficient and safe use of medicines by individual patients. The first outward expression of this change ocurred in the 1960s with the development in hospital practice of ward and clinical pharmacy.

DEVELOPMENT OF WARD CLINICAL PHARMACY SERVICES

Clinical pharmacy practice had its genesis in the USA in the 1960s [55,56]. With the introduction of this new philosophy, the practice of pharmacy began to move from a product orientated profession to a patient orientated profession. It was initially, however, hospital based and was developed through collaboration between hospital and academic pharmacists. In the USA the practice has moved only comparatively recently to primary care (retail) pharmacy [57].

In Scotland the concept of clinical pharmacy was initially termed ward pharmacy which was a geographical term indicating that pharmacy could and should be practised both in the pharmacy department and in the ward near to where the patients were being treated [58,59]. Similar experiments were conducted in London [60].

In an address to the Annual General Meeting of the Scottish Department of the Pharmaceutical Society in 1966, Calder[61] suggested that the concept of patient as distinct from product orientated practice would inevitably be developed in the primary care setting.

Though it was not fully realised in these early days (in either USA or in Scotland) the change from product to patient orientated practice resulted in significant change in the practice techniques, and the detailed procedures involved in pharmacy practice. These new techniques and procedures have come to be known as clinical pharmacy practice ("clinic" comes from the Latin meaning "bedside"). For example, attendance at medical consultants ward rounds became increasingly normal practice. This resulted in the pharmacist making a positive contribution to the prescribing of medicines.

It is generally accepted that, in these early days, clinical pharmacy went through what Cousins and Luscombe[62] have called the "descriptive stage", when the change in emphasis of practice occurred. This change in practice accelerated at a rapid pace with the implementation of the Noel Hall report in 1970 [63]. The hospital pharmaceutical service was re-organised into regional, area and district services with functional management at all levels (see Chapter 6). It was possible for the holders of the new post of Regional Pharmacist to obtain resources, and for Area and District pharmacists to manage the increasing involvement of pharmacists in the ward therapeutic team, as the Noel Hall Report (1970) [63] had recommended. Earlier Roxburgh[64] and Gillie[65] reports had also made similar recommendations, but the appropriate management structure was not put in place until the Noel Hall Report was implemented in 1971/72. In these early days, the attendance at the ward rounds of medical consultants was what was recognised as the essential difference between "clinical" pharmacy and "ward" pharmacy. The exposure of clinical pharmacists to clinical terminology and procedures and to clinical diagnoses and therapeutics, resulted in the need to provide these outposted pharmacists and their successors with clinically orientated post-qualification education. The hospital pharmacy MSc courses at Herriot-Watt and Strathclyde University in Scotland changed their emphasis to clinical pharmacy and the number of pharmacists with this level of education increased, albeit at a relatively slow rate.

The development of this change in practice also found favour in the Nuffield [2] Report on pharmacy in 1986. This report identified the role of the clinical pharmacist as:-

(i) contributing to the choice of drug regimen, particularly when more than one condition is being treated,

(ii) being in a position to supply the physician with evaluated information on the pharmaceutical and clinical use aspects of drugs, as well as heightening the awareness of the adverse and toxicological events associated with drug use,

(iii) helping to decide on which dosage, form, or formulation of an active ingredient should be used, and the best route of administration for a medicine,

(iv) undertaking the responsibility for actually deciding the formulation of a medicine, or the treatment which a clinician had prescribed,

(v) taking responsibility for dosage calculations,

(vi) having a contribution to make in the interpretation of assays for drugs in body fluids.

Calder [59] suggested all of these tasks in his Merck, Sharpe and Dohme address without enumerating them specifically. Though the clinical pharmacy service seemed to be about practice in hospital , Calder [59] in his address to the AGM of the Scottish Department of the RPSGB, suggested that if the ward pharmacy philosophy did change hospital pharmacy practice, community pharmacy would have to adopt the philosophy as well as the hospital branch of the profession (see above).

As has been seen above, this was endorsed in the Nuffield Report [2] in 1986, although by that time the change was beginning to happen slowly in community pharmacy practice, without further prompting [66].

The Regional Pharmaceutical Officers [67], in 1994, suggested extensions to the list of activities shown above by adding:-

(vii) contributing to the counselling of patients,

(viii) encouraging the development of adverse drug reaction monitoring schemes (eventually implemented by the Government from 1/4/97),

(ix) contributing to the economic use of medicines, through the provision of information on costs and independent 'best buy' data,

(x) participating in multi-disciplinary teams to optimise the therapy of patients at risk.

Role number (ix) was a new concept, and the addition of these four items to the Nuffield six, made the philosophy of clinical pharmacy even more applicable to community pharmacy practice.

In October 1988 the Scottish Home and Health Department issued a circular No., 1988 (Gen) 32 [68] instructing Health Boards, in their planning programme for 1989/9, to implement clinical pharmacy and fomulary management systems. A definition of clinical pharmacy was given (similar to the above composite description), as where a description of pharmaceutical skills, which were to be systematically applied to medicine usage both at policy-making level and in the treatment of individual patients. The ten points given above were re-iterated. However paragraph 12 of that circular suggested that the benefits of clinical pharmacy practice should also be applied to the pharmacists and pharmacies providing primary care and community pharmacy services. This was of considerable significance. The circle was closed.

THE DEVELOPMENT OF THE CONCEPT OF PHARMACEUTICAL CARE

Clinical pharmacy has thus become an established description of services provided by pharmacists to patients, other health professionals and health care management. Whilst hospital and pharmacists employed in community pharmacy practice are paid by a salary the owner of the community pharmacy business is paid for each separate service together with a professional allowance which rewards specified cognitive services provided by the employed pharmacists (see Chapter 3). It is paid in a general averaged manner and does not relate to the quantity or quality of the service provided [69].

Although clinical pharmacy is task orientated, there is an increasing use of professional allowances and similar payment systems to reward its practitioners.

Hepler [17], in 1990, described a new concept of an all embracing approach to the care of the patient, with the use (and indeed the non-use) of medicinal products. This he called "pharmaceutical care", and defined it as, "a covenantal relationship between a patient and a pharmacist, in which the pharmacist performs drug-use-control functions (applying appropriate skill and knowledge), governed by awareness of the commitment to the patient's interest". Brodie [70] had much earlier hypothesised that drug-use-control was the main (core) function of the pharmaceutical profession.

The currently accepted international definition of pharmaceutical care is, that "Pharmaceutical care is that component of pharmacy practice, which entails the direct interaction of the pharmacist with the patient for the purpose of caring for that patient's drug (or medicine) related needs." It is thus a patient orientated and a specific patient related service. It implies that the pharmacist has a continuing responsibility for the care of each patient individually. It is difficult to see how such a circumstance can logically be rewarded by an item-of-service fee remuneration system, unless every item-of-service is defined. Whilst the mark up or on cost system can reimburse and reward the commercial risk involved in the supply of products, and the fee for item-of service, can reward specific tasks carried out for a specific patient, only an allowance, capitation or similar "tiers payant" type of payment system would seem to be suitable for the continuing responsibility required when pharmaceutical care (as defined) is provided. However, in the experiment in pharmaceutical care by Strand and her colleagues in Minnesota [11], a remuneration system has been adopted based on case payment and used to reward medical practitioners in the Medicare system in the USA (see Chapter 9).

Brodie's work with colleagues [71] suggested that pharmaceutical care includes the determination of the medicinal product needs of an individual and the provision, not only of the required medicinal product, but also the services necessary before, during and after treatment to ensure optimally safe and effective therapy. Again the separation between the specific "supply" of a product or products and on-going cognitive services is highlighted.

Whilst it is not always recognisable as such, there is multiple evidence that the principles of pharmaceutical care (as defined above) is becoming part of everyday community pharmacy practice. The RPSGB, together with the Government, published a discussion paper in 1992 termed "Pharmaceutical Care, the future for Community Pharmacy [72]," where an attempt was made to formalise and codify this development.

A whole raft of research papers and reports have been published indicating the extent of activities which are being carried out all of which fall within the definition of pharmaceutical care. These include the quantification of pharmacist led interventions in the prescribing process; pharmacist run clinics; audit of domiciliary visits; audit of plasma drug and biochemical concentrations measured in community pharmacies; number and time of consultations in pharmacies (including response to symptoms, information on medication,

counselling and health promotion). For example, the studies of Bell et al [73], Rogers et al [74], Evans et al [75], Tully et al [76], Anderson and Greene [77] and McGuire et al [78] are all relevant.

Under the auspices of the Clinical Resource and Audit Group (CRAG) of the Scottish NHS Management Executive guidelines on the provision of clinical pharmacy services have received wide circulation [74] in Scotland. These are compatible with the ten principles described above.

A recent report, on "The Role and Contribution of Pharmacy in Primary Care" [80] provides an overview of the giving of advice in community pharmacies. It notes, that in relation to the management of minor illnesses, and in the advice given on the choice and use of medication, advice giving transcends both lay and professional cultures, reflecting the retail commercial environment in which pharmaceutical care is provided, in a typical community pharmacy. There is a natural hierarchy, from unqualified pharmacy assistant to pharmacists to General Medical Practitioner (GP), reflecting the actual or perceived level of competence by the public. The approach of the consumer and the patient depends on their perceived or believed competence of the provider to deal with the problem, and whether or not they (the patient) require the assistance of the pharmacist or the skills of the GP. It stresses that there is no reliable research into the extent to which the patient's choice of an over the counter (OTC) product is erroneous, nor the appropriateness or otherwise of the pharmacist's advice. The protocols for the work of assistants recently introduced by the RPSGB [81] is noted as an improvement in the consistency and reliability of the advice giving process in community pharmacies. However, the protocols do not overcome the determined purchaser, or the demand type nature of a high proportion of those who self-diagnose and self-treat with OTC preparations. The study also notes for the first time - it is maintained - the high level of proxy consultations. This is an entirely different situation from that found in general medical practice, and would militate against an over vigorous patient registration and capitation payment system for pharmacy, without a concomitant change in the current attitude of consumers/patients to pharmacists and the advice-giving service. This need for a change in approach has been emphasised by Odedina and colleagues [82] in a study in USA on the changing of the pattern of practice in community pharmacies.

Very few of these clinical or pharmaceutical care services have been quantified and fewer costed in Scotland. There are a series of small inconclusive studies (for example, reference [77]) which are relevant, and have been noted and used to guide the selections of models examined in Chapter 9.

Pharmaceutical care has further developed into a situation where the pharmacist actually prescribes the medicines which the patient requires.

In 1971, in the Indian Medical Service in Pheonix, Arizona, pharmacists were prescribing for such diseases as tuberculosis, hypertension and diabetes [83].

Prescribing by pharmacists in the USA has occurred for some time [84]. More recently a review article described the extent of pharmacist prescribing in USA [85]. In Scotland, clinical pharmacists in Dundee and in Lothian have experimented with prescribing protocols, and have run clinics for patients with, for example, hypertension and who require treatment with anticoagulants [86, 87]. In this latter case, an element of rudimentary costing was being carried out, which proved useful in the costings used in Chapter 9.

It is necessary to discuss in more detail pharmaceutical care as provided be experimental pharmacies in the USA, to enable lessons to be learned as to how the concept can be applied to the NHS community pharmacy service in Scotland (see Chapter 8).

From this it may be possible to arrive at a suitable criteria to judge at some future date, a suitable NHS contract and remuneration system which relate to the pharmaceutical care needs of patients.

It should be noted that the provision of full pharmaceutical care services in Minnesota [11] was successfully undertaken in a climate of increasing cost-containment similarly to that which exists in Scotland today. The whole experiment and its outcome together with remuneration system (see Chapter 9) which was developed to accommodate the radical changes in community pharmacy practice is contained in a recent book be Cipolle, Strand and Morley [11].

The practice of pharmaceutical care is designed to meet the major social problem of drug-related morbidity and mortality based on a caring, patient-centred approach and clearly defined practitioner responsibilities. In this practice the practitioner(the pharmacist and not in Scottish NHS terms the "contractor") is responsible for ensuring that all drug therapies the patient is receiving are appropriately indicated and that all indications for drug therapy are being appropriately treated by medication. To do so means that the pharmaceutical care practitioners (the pharmacist) must receive all records of the patient's disease state and pathology. The practitioner is thus responsible for ensuring that the patient's drug therapies are as effective and as safe as possible. This is accomplished by identifying, resolving and preventing drug therapy problems so that the patient can realise the intended goals of the therapy. Finally, when providing pharmaceutical care, the practitioner is responsible for ensuring that the patient is able to comply with the medication and care plan instructions in order to produce positive patient treatment outcomes.

This philosophy is at present foreign to community pharmacy practice in Scotland but the underlying objectives are now part of the NHS objectives in primary care as will be seen from the following paragraphs in this Chapter and in Chapter 6.

It has been shown in the USA in the extensive Minnesota experiment [11] where many community pharmacies co-operated with the health care provider agencies, the State Government, Schools of Pharmacy, medical and other health care practitioners that such a service was possible and that improvements in outcomes with medicinal therapy as well as extensive cost savings and benefits were achieved within the USA context [11].

As far as Scotland is concerned, in the recent White Papers issued in Scotland on Primary Care [88], the pharmaceutical care roles of the community pharmacy have been highlighted. The most recent of these is Primary Care: Agenda for Action [89] published by the Scottish Office, Department of Health in February 1997.

Prior to this, a more general White Paper, Choice and Opportunity, 1996 [88] was issued by the Scottish Office Department of Health.

In Chapter 3 of "Choice and Opportunities" [88] the roles and responsibilities of community pharmacy were described in general and included:-

(i) Pharmacies as first port of call for minor ailments.

(ii) Facilitating better use of prescribed medicines.

(iii) Health promotion and advice on medicines to the rest of the primary health care team.

It was maintained in that discussion paper that more flexible legislation was required to reduce the constraints placed on the range and standards of community pharmacy services, and to enable such services to be tailored to local needs. Pharmaceutical care type services, including domiciliary visits, are mentioned as future possibilities. However, the core dispensing services would remain as at present. Health Boards would in future be able to purchase such other services as they wish, using their own local specifications and determining how much they proposed to pay for these services. NHS type contracts, rather than legally enforceable commercial type contracts, would be used.

In the most recent tentative discussion document [89] more details are given on the future for community pharmacy from the perspective of the Management Executive of the NHS in Scotland.

In this paper community pharmacy is seen as part of the primary health care team. Post-graduate education is given a high priority as is research and development, clinical audit and clinical effectiveness. The use of pilot schemes to test out new approaches are advocated.

The location of community pharmacies in premises, separate from general medical services, is seen in the latter discussion paper [89] as a barrier to closer working with other members of the primary care team. It suggests that the presence of a pharmacist within the GP practice has been shown to have significant benefits, particularly in the management of prescribed medicines and in running clinics such as anticoagulant and hypertension clinics. Also such a presence assists in such issues as repeat prescribing, medication monitoring and dosage adjustment, advice on drug selection and formulary development. As a consequence it suggests that there should be an aim to have 10% of all general medical practices having pharmacist involvement by 1998. In addition, Health Boards are encouraged to use special funds to facilitate clinical pharmacy advice on prescribing to general medical practices. The Management Executive also wished to explore alternative organisational and remuneration

models for pharmacists working in primary care. It is intended that this study will make a contribution to this exploration.

The paper [89] also draws attention to the need to review the consequences of more potent medicines being available from pharmacies, which can be used to treat common and minor ailments. It suggests that data on their appropriateness and outcome of their use requires to be collected and disseminated. In this area voluntary registration of patients with pharmacies is to be considered. The paper by Hassell et al [80], previously referred to, explores briefly some of the problems which would need to be overcome if such a procedure was adopted. The Management Executive's publication gives no hint on how such an arrangement would be financed, remunerated, or what type of payment system would be used. A capitation/retainer type system would be obvious, but a fee-for-item of service component cannot be excluded.

It is suggested, in the White Paper [88], that no single model for primary care or the provision of pharmaceutical care within primary care will suit all circumstances.

"Choice and Opportunity" [88] further suggests that available resources should be distributed on an equitable basis. This would involve devising indicators of relative need and, for example, allocating prescribing resources based on a weighted capitation system. This would involve fundamental changes in the current method for remunerating community pharmacies and pharmacists. Such changes are taken into account in the pertinent and relevant models which are discussed in Chapter 9.

It is also suggested that the current use by community pharmacies of their patient medication records needs to be extended to include standard clinical pharmacy records.

A new NHS (Primary Care) Act [90] received Royal assent in the spring of 1997. It confirms that the present system of providing dispensing services will remain unaltered, but that services which come within the definitions of clinical pharmacy and pharmaceutical care and which are in addition or complementary to dispensing services, will be able to be introduced into community pharmacy practice by Regulations made under the Act It is too early to be certain what will happen, but clearly a remuneration system will be required to reflect how these services are provided and from which premises.

It will be seen, therefore, that many of the philosophies and plans are in place to develop a full pharmaceutical care service in community pharmacy in Scotland.

It is clear that all of the aforementioned developments and proposals fall within the general definitions of either "clinical pharmacy" or "pharmaceutical care" and that a high proportion involve the provision of services where the sale or supply of a product is either non existent or is tangential to the service provided. Any accceptable and effective remuneration system must, obviously, take this into account.

The developments described in this Chapter suggest that a revised remuneration system and NHS community pharmacy contract should be judged against the following patient-centred criteria:-

1. The system would allow the pharmacist access to all relevant patient records.
2. The pharmacist would be accepted and integrated to the primary health care team.
3. The payment system relates to the pharmacist's responsibility for achieving the required outcomes with drug therapy.
4. The payment system reflected the complexity of each process required to enable the responsibility described in 3 to be carried out in a reasonable manner.
5. The patient should choose one pharmacy practice from which he/she would receive all services.
6. A system of measuring outcomes of treatments should be in place.
7. The treatment systems used should be firmly based on evidence derived from quality research.

(NB These criteria have also been included in Chapter 2 page 32 for completeness).

Within the limits of this study, it will not be possible to suggest models which would fully achieve these desired effects. However, models will be studied and proposed which could move the service in this direction whilst remaining achievable within the current constraints and which meet the more mundane and, perhaps, more business orientated criteria described in Chapter 2.

To enable the radical changes in health outcomes, proposed radical changes in primary care pharmaceutical practice and remuneration must occur, if the criteria mentioned above are to be achieved.

CHAPTER 6

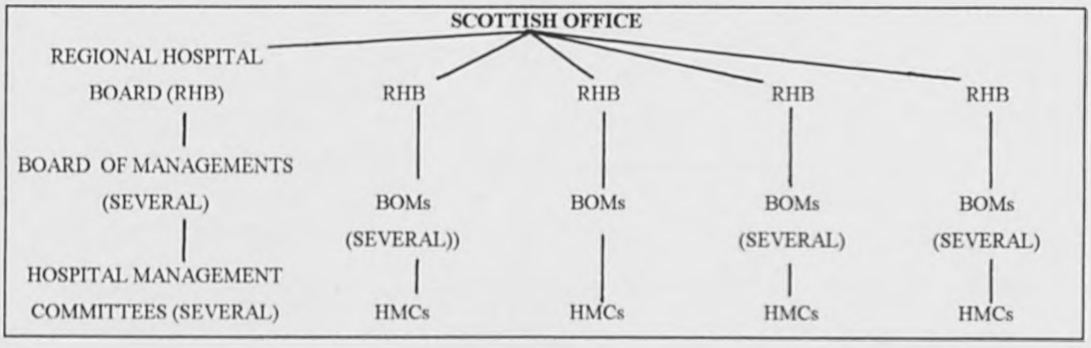
DEVELOPMENTS AND CHANGES IN THE ORGANISATION OF THE PROVISION OF HEALTH CARE IN THE NHS AND THEIR RELEVANCE TO PHARMACEUTICAL CARE AND THE REMUNERATION SYSTEMS FOR COMMUNITY PHARMACY

NHS ORGANISATION 1948/72

In 1948 the current NHS was established under the NHS (SCOTLAND) Act, 1946[91]. It completely did away with the former National Insurance (NI) system. This established five Regional Hospital Boards (RHB) in Scotland. These Boards, appointed by the Secretary of State for Scotland, oversaw the provision of hospital and community health within their geographical area. For each hospital or group of hospitals, within the area of each RHB, there was established a Board of Management which, *ipso facto*, managed the hospital and community services within their legally defined bailiwick.

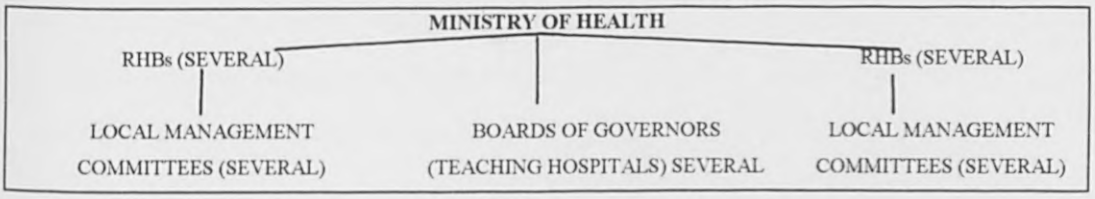
The major change from pre-1948 was that all hospitals, including hospitals previously owned and managed by local government authorities, "voluntary" hospitals (those supported by charity and public subscription), and the University teaching hospitals, all came within the ambit of the RHBs in Scotland. In England the University Teaching Hospitals were managed by separate Boards of Governors, who were under the direct control of the Ministry of Health, not as in Scotland responsible to RHBs. This arrangement was to continue in England until the NHS was reorganised in 1973 - 74 (see Figures 13 and 14).

FIGURE 13



ORGANISATION OF NHS HOSPITALS 1948/74 (SCOTLAND)

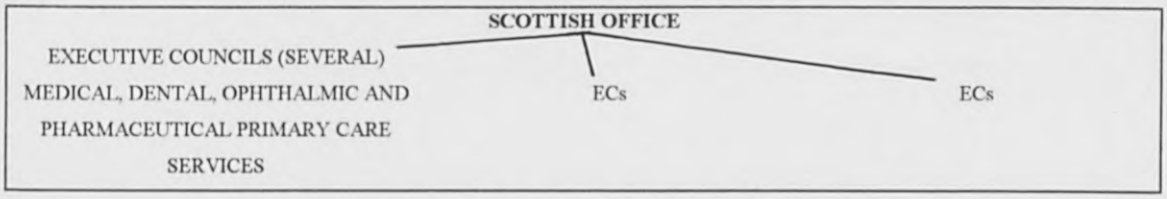
FIGURE 14



ORGANISATION OF NHS HOSPITALS 1948/74 (ENGLAND)

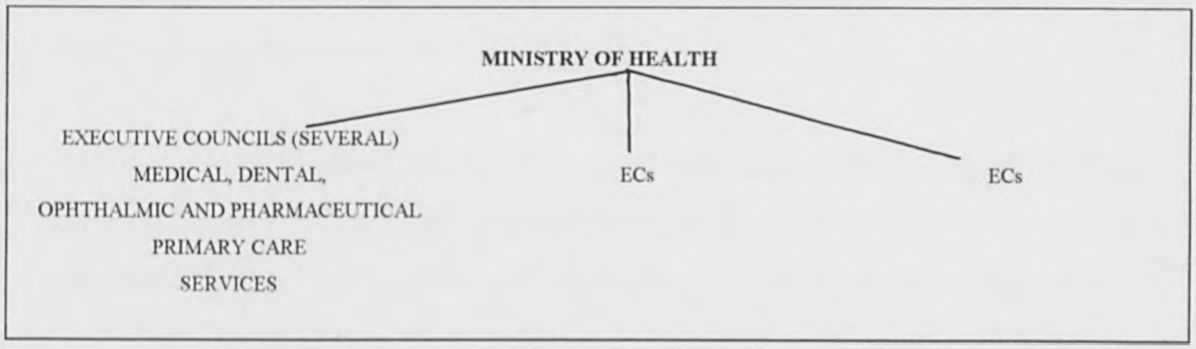
The primary care service was administered (but not managed) by Executive Councils. The Councils were appointed by the Secretary of State after consultations with the professions and the contractors who by law provided the primary care service, namely medicine, dentistry, ophthalmic and pharmacy (see Figures 15 and 16). These Councils were not dissimilar in constitution, function and responsibility to the pre-1948 Insurance Committees (see Chapter 7).

FIGURE 15



ORGANISATION OF NHS PRIMARY CARE SERVICES 1948/74 (SCOTLAND)

FIGURE 16



ORGANISATION OF NHS PRIMARY CARE SERVICES 1948/74 (ENGLAND)

The central Government set the fees and conditions of service of all primary care contractors. Payment of the contractors and the method by which adherence to the conditions of service was enforced were administered by the Executive Councils. Funding was from general non-hypothecated income tax and not as under the old NI scheme from specific hypothecated contributions from the public and their employers.

Each Executive Council had professional Advisory Committees, established by Statute and elected by the contractors. The composition of these Committees included pharmacy contractors, employees of pharmacy contractors, one hospital pharmacist and representative(s) of the Company Chemists Association. The current Chemist Contractor Committees are very similar to these Advisory Committees but, for reasons we will see later, (see Chapter 7) have until very recently had a decreasing role to play because of the change in philosophy of administering and managing the primary care service. This may change with the establishment of Primary Care Trusts and Local Health Communities in April 1999 [92].

It must be emphasised that the Executive Councils had little or no influence on how the primary care service was delivered, its philosophy or its role in the total health care service. These matters were dealt with centrally. The fact that their senior official was termed Clerk to the Council and not Manager or Chief Executive reflects their role and function.

The type of advice which the Advisory Committees could give was confined to ensuring that the centrally determined rules and regulations were correctly and fairly applied. They also supplied members to the relevant disciplinary Committees of the Councils.

Public Health continued to be the responsibility of Local Government Authorities and funded from local taxation and not central taxes.

It follows from this organisational structure that there was little, if any, integration of the hospital, community, primary care and public health arms of a total health service. As a consequence the practitioners of the various professions saw themselves as separate and distinct from their fellow professionals in one and all the other "branches" of the NHS. Except for Accident and Emergency Services provided by hospitals, patients could only receive hospital treatment and services if referred by a General Practitioner in the primary

care sector. As a result there was not an integrated NHS as politicians at the time claimed, nor was there seamless care. As a consequence many patients received totally fragmented care which was often stated as being inadequate.

CHANGES IN THE ORGANISATION OF THE HEALTH SERVICE 1972 /74

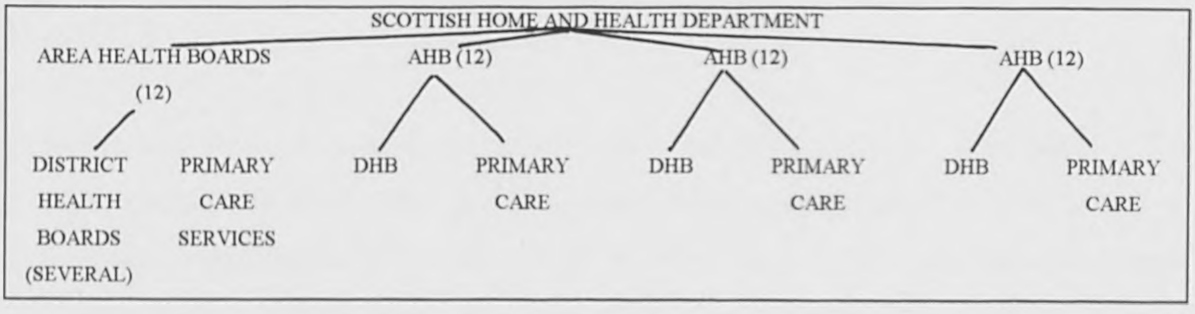
The lack of an integrated provision was recognised by a major review of the NHS carried out in the late 1960s and the early 1970s. The result was a major reorganisation of the NHS which became operative between 1973 and 1974 (NHS (Scotland) Act, 1973)[93].

It was clear that fragmentation of the structure, prior to the 1973 Act, did not allow this objective to be achieved in an efficient manner. This reorganisation set about trying to improve the position.

The reorganisation of the hospital pharmaceutical service, initiated by the Noel Hall report of 1970[63] was compatible with the organisation of the reformed NHS and therefore, meshed very well with the new structure.

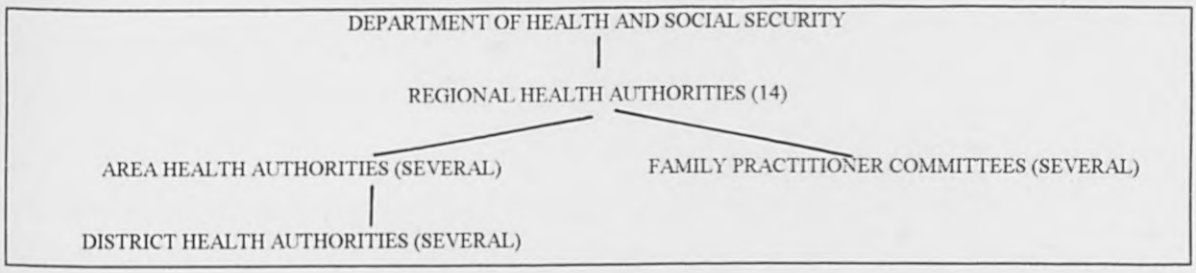
The reorganisation of both the hospital and primary care services was slightly different in Scotland to that in England as detailed in Figures 17 and 18.

FIGURE 17



ORGANISATION OF NHS IN SCOTLAND 1974/84

FIGURE 18



ORGANISATION OF HEALTH SERVICES 1974/84 ENGLAND

Within the geographical areas of each Regional Health Authority, Area Health Authorities (AHAs) were given the responsibility of managing the hospital and community health services under the overall control of the RHAs. Within each Area Health Authority responsibility was devolved to District Health Authorities (DHAs) who managed specific hospitals and community services. The primary care service was administered (not managed) by Family Practitioner Committees (FPCs). AHAs had the additional responsibility of integrating the hospital and community services with the primary care services and public health services, these latter having been transferred from the relevant Local Government Authorities.

The Chairman and members of RHAs were appointed by the Secretary of State (S of S) as were the Chairman of AHAs and DHAs. The members of these latter authorities were appointed by the S of S after full consultation with the RHA and the AHA, in the case of the DHAs.

Management was by consensus. Every RHA, AHA and DHA had a team of officers including administration, finance, medical, nursing and pharmaceutical officers. Effective liaison with and integration of the activities of the FPCs was a responsibility of the Regional and Area Authorities and their officers. In practice, for a variety of reasons, including the reluctance of primary care practitioners to have their practices and activities managed by those who managed and funded the hospital and community services, these latter objectives and ideals were seldom, if ever, acted upon with any real conviction.

The Department of Health and Social Security (DHSS) allocated resources on a population based formula to RHAs who in turn allocated resources to AHAs and in turn allocated resources to the DHAs. The DHSS directly funded FPCs to administer the payment and conditions of service of the primary care practitioners the terms of which had been negotiated and determined centrally by the Secretary of State.

In Scotland, there were no RHAs and no FPCs. AHAs were called Area Health Boards (AHB) and DHAs, District Health Boards (DHBs) and the primary care services were administered (not managed) by the primary care division of AHBs. This was an administrative division of the AHB with no separate controlling committee on board.

The consensus management structure was the same as in England, with the same officials as the English AHAs. Since there was no appointed committee or board for the primary care services, the AHB members and officials had a responsibility for the proper administration of the primary care service and a direct responsibility for the integration of this service with the hospital and community services. At about this time, retail pharmacies began to be called by the profession community pharmacies, and those who worked in and from them community pharmacists. However, they had no connection with the community services previously mentioned and were in NHS law, in funding and budgeting terms, primary care pharmacies and pharmacists.

AHBs were appointed like RHAs, and DHBs were appointed in a similar manner to DHAs in England.

AHBs were given two quite separate non-virable budgets, one to provide the hospital and community care services (the HCH budget) and the other the primary care services. The task of the latter was to administer the centrally determined payment and conditions of service arrangements. Public health was funded centrally and the management transferred from Local Government Authorities to AHBs, along with the duties of the Local Government Medical Officer of Public Health.

As there were no FPCs in Scotland the integration and liaison between the primary and community care sector and the primary care sector would appear to have been a relative straight forward task. For the same reasons as in England full integration was never

achieved (see above). Indeed, pharmacy disputes arose, for example, about whether the HCH budget or the primary budget should be responsible for the provision of certain medicines which were often expensive. The system gave no guidance as to which was the correct budget. AHAs and AHBs appointed community service pharmacists which disturbed the primary care pharmacists as they saw this as an attempt to take over or manage their activities. This reaction was based on a lack of knowledge of the budgeting system and on the insistence of the pharmaceutical profession to call primary care pharmacists, "Community Pharmacists", which had no basis whatsoever in NHS law.

The Scottish AHBs had professional advisory Committees elected by practitioners in the hospital and community services and those in the primary care sector. These were called Area Pharmaceutical Committees. The Chemist Contractor Committees continued with the same function as the advisory committees of the Executive Councils. However, they no longer had a hospital pharmacist as a member.

Integration of the various strands never, in fact, took place to any great extent.

CHANGES IN THE ORGANISATION OF THE NHS 1974 - 1984

Over these years (1974/84) various minor restructuring occurred. DHAs and DHBs were disbanded. In England, in order to introduce a degree of management into the function of FPCs, these latter were restructured as Family Health Service Authorities with a wider remit than simple administration.

There were no significant changes in the organisation which directly affected either the organisation or role of primary care (i.e.community) pharmacy.

There was continuing disquiet, in Government and public circles, about the consensus and functional management nature of the 1974 structure. A feeling grew that nobody was responsible for the total management of the service.

"General management" began to be the theme and in 1987, general management was introduced. Functional management at the Board level was eliminated. It was eventually eliminated from all levels of the service.

CHANGES IN THE ORGANISATION OF THE NHS 1984 -97

With the introduction of general management, each Health Board was required to appoint an official who was responsible for the total management of all four branches of the service namely, the hospital, community service, the primary care service and the public health service.

Functional managers, such as the Chief Administrative Pharmaceutical Officer, were removed from the consensus management team, though they continued to have an advisory role including advising on the primary care pharmaceutical service. However, the Chief Administrative Medical Officer became the Consultant in Public Health and remained a member of the management team.

The structure and membership of the Boards remained largely unaltered, although some professional members were replaced by lay members from a business management background.

This reorganisation was quickly followed by the establishment, in the late 1980s, of an NHS Management Executive (ME). There are separate MEs for England, Scotland, Northern Ireland and Wales.

The ME deals with all operational matters within the policy set by the Secretary of State (S of S). It is headed by a Chief Executive who reports directly to the S of S and has a financial responsibility to Parliament similar to that held by the senior civil servant of a Government Department. That is, the Chief Executive is responsible for how the funds allocated by Parliament are spent. The Chief Executive is responsible for the four branches of the NHS namely hospital, community, primary care and public health. It should be noted here that, with the Community Care Act of 1990[94], the administration of "Community Care" was transferred from Area Health Boards (now known, simply, as Health Boards) to local Government Authorities. To cover the care in the community of such patients as the mentally ill and retarded and the elderly, they received some of their funds from the Health Boards. The remainder is raised from local taxes. Social work services which care for such patients within the community (as distinct from treatment in a hospital) are provided

by the Local Government Authorities are funded also from local taxes with a contribution from central Government.

The primary care services required by these patients are, however, still provided by primary care practitioners under their normal NHS contract arrangements. Local authorities, however, have been demanding additional services, which they do not have the resources to fund. They have, therefore, relied on them being funded from the pharmaceutical global sum. This confusion has caused problems [95].

Whilst at first the establishment of the ME did not materially affect the primary care service nor the remuneration system for primary care practitioners, including pharmacists, the changes increasingly demonstrated the unsuitability of the current method of arriving at the global sum system for remunerating both the conventional pharmaceutical dispensing and the advisory services. Patients in the community required pharmaceutical services (some of which could be classified as cognitive services) which were not available under the primary care contract. There was no obvious separate budget to meet the resources these services required.

These were, and continue to be, funded from the global sum. The direct consequence of this is that payment for the other conventional ("core") services have been disproportionately reduced, since the global sum has not been augmented sufficiently to allow them to be retained at their previous levels in cash terms .

However, as the ME's philosophy developed, three significant changes occurred. Firstly Health Boards became "purchasing" authorities, buying from hospitals who became "providers." Fund-holding General Practitioners were established and HBs became increasingly involved in the management of primary care services. These GP fundholders provided primary care services and purchased some secondary and tertiary care services from other providers such as NHS hospitals and private hospitals. The purchaser/provider split was created. This change of philosophy began to have a profound effect on the management of the primary care services.

The next change was the establishment of NHS Trusts. The function of Trusts is to provide hospital and community services on behalf of the Government (i.e. the Secretary of

State for Scotland). NHS Trusts are self-governing, with their own Board of Directors (appointed by the S of S) with freedom to organise their own affairs, within certain limits, and subject to overall control of the ME representing the S of S. They are not managed by the Health Boards. They have to achieve currently a nominal return on capital invested of 6%.

GP fundholders are responsible for purchasing a number of services for their patients. They hold their own budgets and can place contracts with NHS providers (including NHS Trusts) for hospital services including out-patient services, diagnostic services and specific in-patient and day case treatments. They can also contract for services from community pharmacies which are outwith the primary care pharmaceutical contract. They also provide primary care medical services.

GP fundholders receive an annual drug budget to pay for their prescribing of drugs, prescribed dressings and appliances. This budget includes the basic cost of the medicines, and prescribed (by Statute) dressings and appliances at the national average discounted rate. The pharmacists' remuneration is not included in fundholding drug budget. The GP's budget, in addition, covers the staff costs, for example, of receptionists, practice nurses and, in dispensing practices, a proportion of the staff costs of dispensers. Since 1993, fundholders can purchase community services such as district nursing, health visiting, the services of dieticians and physiotherapists. Lastly the budget includes the funds to buy secondary and tertiary care from NHS Trusts and private hospitals.

Fundholders can retain any savings made on their budgets and use them for improvements and developments in their practice and can exercise virement of resources from, for example, their drug budgets to their hospital services budget.

The implication of GP fundholding for community pharmacy concerns primarily the drug budget. It is obviously in the financial interest of fundholding practices to carry out efficient prescribing practices. In most cases, this produced changes in prescribing trends. This affected, for example, the stockholding of the pharmacies which service the patients of GP fundholding practices. GP fundholders can also buy the services of the community pharmacists to assist them in rationalising their prescribing. The GPs negotiate the

remuneration package directly with the pharmacists involved . The funds do not come from the global sum.

CURRENT POSITION (1998)

Currently HBs have the powers and considerable freedom to purchase specific services relevant to the treatment of patients for whom they are responsible. Some of these services may be provided by pharmacies, the remuneration of which is not part of the NHS primary care pharmacy contract. This facility may be extended under the terms of the NHS (Primary Care) Act, 1997 [90].

Core dispensing, however, which will continue to be financed separately, is not included in this facility. However, five pharmaceutical services have been devolved financially and are now subject to local negotiations between HBs and the local pharmacy contractors. These are needle exchange schemes, disposal of unwanted patient's medicines, methadone dispensing, domicilliary oxygen supply and cognitive services to residential and nursing homes. The remuneration of these was, until March 1997, determined and resourced centrally (Appendix 1).

The resources for these services have been deducted from the centrally held "global sum" and is based on what was paid to pharmacies within each HB for these services over the previous fiscal year. HBs can vire monies between these services and can vire monies from other primary care and other services into these services. They cannot, however, use the monies for these services for any other services provided by or purchased by Health Boards (see Chapter 3).

The Government, elected in May 1997, has announced that NHS Trusts will not continue in their present form and that GP fundholding will be replaced by something similar but different.

The new Government has indicated that the nature of NHS Trusts will change and be reduced in number. If such changes do come about they should not on their own materially alter the practice and remuneration system of community pharmacy except that

in future they are likely to be contracted to Primary Care Trusts (PCTs) and not to Health Boards [92].

Some GP fundholders have purchased the time and expertise of pharmacists to work within their practices to assist with prescribing matters and to run specific clinics [86]and [96]. There is no reason to believe that any changes to GP fundholders will negate this facility though the funding will come from PCTs and not the GP fundholder. Indeed, with a primary care led NHS, the provisions of the new Primary Care Act 1997 [90] and the increase in so-called Consultant Pharmacy services [97] (similar to these in USA - see Chapter 8), there is every reason to believe that the purchase of cognitive services from community pharmacy will increase. There is no reason, as yet, to believe that the remuneration for these services will come directly or indirectly from other than the global sum. It could, however, come from other funds held by PCTs.

The role of the Chief Administrative Pharmaceutical Officer (CAPO) at HB level has changed [98]. The role now encompasses a public health dimension and is on the purchasing side of the purchaser/provider divide. The post-holders would also appear to have a greater role in the purchasing of primary care pharmaceutical services from community pharmacies. The role of the Chemist Contractors Committee is being strengthened to assist local contractors with local negotiations.

As previously explained (see Chapter 3) since 1987 there has been controlled entry into the NHS primary care pharmacy contract. To obtain a new contract a pharmacy has to demonstrate that it is necessary or desirable to have a pharmacy in the proposed location. Current pharmacies can only relocate to a new site if the move does not materially affect the existing arrangement for the provision of primary care pharmaceutical services. It is possible that the new flexibility and the primary care led NHS philosophy will result in changes in the current mechanism to locate pharmacies. New arrangements may be introduced by Government and PCTs in order to position pharmacies where they are most needed in order to provide a wider variety of cognitive services. This may also result in some perhaps limited form of patient registration with pharmacies and a change to a system, where not all pharmacies will provide a comprehensive service (see chapter 9, top down model three - fifth variation).

DISCUSSION

The current intention of the Government is to increase the role of primary care in the NHS, to have a more flexible system to purchase health care and to increase the facility of the new proposed PCTs to purchase cognitive services locally from community pharmacies. It is also the plan to devolve more current core services (except dispensing) to local budgets and local negotiations and for PCTs to be more pro-active in managing the provision of primary care services.

The present contract and its remuneration system could be changed by the Government. It has little incentive to do so since the current contract works in an orderly manner and an alternative which would improve patient care and which would be found acceptable to all contractors (including large multiples and independents) has not yet been arrived at. The more recent changes in the structure of NHS management and philosophy should provide a catalyst to devise such a new contract and a consequent revised remuneration system.

There would appear to be a natural, if not planned, drift towards the current global sum being used to remunerate dispensing and supply and a separate and perhaps different system (and resources) to remunerate cognitive services. This point is pursued in the following Chapters.

CHAPTER. 7

A HISTORY OF THE REMUNERATION OF COMMUNITY PHARMACY.

PREAMBLE

In Chapters 5 and 6 the development and changes in the practice of pharmacy and in the organisation and management of the health services are described. It is now pertinent to chart the history of the remuneration of community pharmacy with the objective of discovering if it has changed or how it has changed to accommodate these developments and changes. In doing so it is necessary to begin before the introduction of National Insurance in 1911, since how pharmacy evolved in these days set the pattern of how pharmacy was paid for the services provided when National Insurance was introduced and subsequently when the NHS commenced in 1948.

PHARMACY ORGANISATION AND REMUNERATION PRIOR TO THE NATIONAL INSURANCE ACT, 1911

The title Chemists and Druggists was the legal description of what we now call the Community Pharmacist and they emerged as a distinct branch of the medical profession during the eighteenth century. Their emergence was part of the commercialisation of Georgian society [99]. It is interesting to note that it was not until the late 1960s that the statutory title of pharmacist was changed from "Chemist and Druggist" to "Pharmaceutical Chemist" which remains the official registered title of a pharmacist in Great Britain today.

During this period noted above (i.e. the early eighteenth century), society particularly the middle and upper sections of the population, had benefited from a general increase in its disposable income. This increase was spent on consumer goods and services. In fact a consumer revolution had taken place. Producers and sellers of such goods and services did not just respond to these changes; they played a substantial part in bringing them about.

Chemists and Druggists were a product of this consumer revolution. Medicine, both orthodox and fringe, expanded as part of the general growth of the service sector. There is documentary evidence that instead of grannies brewing herbs to assist in health care, as was

the custom, the family now bought proprietary medicines and other medicines from the Chemist and Druggist for their ailments [100]. The remuneration of the emerging profession thus came from the sale of consumer products.

Chemists and Druggists were both medical practitioners and shopkeepers, hence the title often used of "apothecary" (from the Greek which meant, a "shopkeeper of drugs"). However, Apothecaries and Chemists and Druggists were quite separate branches of the medical community. Unlike other medical practitioners (including apothecaries), who relied on items of service fees for their income (sometimes with no products involved), the Chemists and Druggist's place of practice was visible to the public and, as traders, records of their transactions are available from many contemporary records. The rise of Chemists and Druggists, according to [19] and others, is inseparable from the introduction of new forms of retailing. To stave off competitors who were frequently itinerant, Chemists and Druggists set up a new form and type of retail establishment. The "shop" of the apothecaries of the 16th and 17th centuries was a workshop, storeroom, surgery and living room. In contrast, the Chemists and Druggists gave prominence to the retail side of the business. In fact, therefore, the immediate forefathers of present day community pharmacy were essentially retailers, and were remunerated accordingly.

As a result of other social changes, where the restrictions imposed by craft guilds were being eroded, the Chemists and Druggists discarded co-operation and regulation and joined with other retailers in a free market and an open competition. The fundamental tenet of this approach was the belief in the unrestricted right of every man to follow whatever occupation or profession was most suitable to his temperament, and at which he could best acquire money and other assets. Rules and regulations which created reserved occupations were regarded as repressive since they interfered with the rights of the individual. Regulation of trade must, they argued, be within the hands and authority of those who pursued it, and these traders subscribed to the philosophy of the absolute sovereignty of the consumer. The need to attract custom, rather than adherence to communal standards, was the prime driving force behind all the activities of the Chemist and Druggist. He, and he alone, created his own two fold freedom; the liberty to dispense whatever pharmaceutical preparation he may wish without interference from physicians or fellow traders; and the liberty of the public to purchase and use whatever medication it may choose [101].

Thus was founded the remuneration system which underpins how present day retail pharmacy is paid. The practitioner or trader receives a mark up on the products sold and profit is increased by creating increased and new demand. Drugs and medicines have changed dramatically since then, as have the demands and knowledge required of present day pharmacists. However, the market (and indeed the Government and its agencies) still regards them as profit seeking businessmen, and basically makes use of a payment system, which accepts and respects that.

Changes in society, in the potency of drugs, together with commercial and professional rivalry between apothecaries, and the need for some degree of control in all of these activities, led to radical changes in the control of medicines (drugs). It was not always the case that the control was needed to benefit the patient, but rather to control the activities of rival traders.

In the early nineteenth century, the shortage of small change (i.e. small coins) led many Chemists and Druggists to make available their own form of coinage, namely, tokens. These bound the customer to the particular Chemist and Druggist, just as surely as would the current move to have patients registered with NHS contracted pharmacies [102].

The level of commercial skill needed to excel, prosper and remain in business as a Chemist and Druggist was, and is, much higher than is often realised. John Howard (1726 - 1790) estimated that, in 1776, there were nearly 2,500 Englishmen in prison for debt and by far the greatest majority were shopkeepers, including a high proportion of Chemists and Druggists [99].

There was a distinction between the relatively secure wholesaler, cum manufacturer, cum retailer, type of Chemist and Druggist who made a very healthy living, and the relatively poor corner shopkeeper, who made a living little better than his working class customer. The former resembled in status and income more of the old apothecary than the new retailer.

Thus, the leading Chemists and Druggists were substantial businessmen making large profits and leaving considerable fortunes when they died. Their wills show that they were

capable of amassing fortunes as great, if not greater, than manufacturers, farmers and professionals like physicians and attorneys [103].

Many prominent physicians chose to learn their trade by first being apprenticed in an up to date pharmacy, rather than be a general practitioner's apprentice. In trade, in business, in education and in social status, leading Chemists and Druggists were not marginal. They were every bit a part of the greater medical profession as were physicians, surgeons and the old style apothecary.

Four of the nine Bills, introduced for the regulation of the medical profession in the years between 1840 and 1850 included Chemists and Druggists as part of the medical profession. Chemists and Druggists were not finally excluded from the medical profession until the 1858, Medical Act [104].

It should be noted that the high class Chemist and Druggist establishments were linked to the practice of physicians and surgeons by the dispensing of prescriptions. The majority of Chemists and Druggists in England, however, never saw a physician's prescription and had little, if any occasion to dispense them [105].

Thus, before the 1911 National Insurance scheme, ninety percent of dispensing in England took place in general practitioners' surgeries. This was not the case in Scotland where the Chemist and Druggist dispensed virtually all the prescriptions from the medical profession [106].

THE EMERGENCE OF THE PROFESSIONAL PHARMACIST CUM RETAILER. (The implementation of the 1911 NI Act).

Just as today, the Chemist and Druggist and his successor, the pharmacist, had to respond to the business opportunities in his own area in order to survive and prosper. He had to adopt a market strategy flexible enough to provide services and goods neglected by other practitioners and traders. He had to be prepared to practise a wide range of medical skills and to sell a diversity of products. In some respects this philosophy has not changed. What has changed is that medicines are more potent and potentially harmful and are, thus, extensively regulated and a high proportion of them are sold to only one customer, in

Scotland that is the NHS. Also, the nature of the product and the market has changed. The service which modern medicine requires from the pharmacist includes knowledge (i.e. cognitive skills) and not just manipulative, dispensing skills and the business involved in the supply of the product alone. In some situations no product is required to be supplied.

It has been clearly established that the predecessor of the modern pharmacist was a well respected, important, specialised retailer and traded as such on trader's terms Not all pharmacies dispensed prescriptions in England, although the incidence of doctor dispensing and the use of pharmacies for the dispensing of prescriptions was different in Scotland (see above). In England (and Scotland) the less well-off citizens used the pharmacy as a source of treatment. It is also relevant that because of the change in retailing - with price competition, low margins and an increase in multiple stores - a bitter war had to be fought at the beginning of the 20th Century, to retain retail price maintenance on pharmaceuticals to preserve the viability of all pharmacies [19].

Prior to the National Insurance Act of 1911 [4], the State was not involved directly in the payment of the Chemist and Druggist (the current community pharmacist). The rewards came directly from the customers or patients. The payment system was by means of a mark up on the wholesale cost of the product supplied or the cost of the sum of the ingredients used to make the product. A fee was sometimes added but this was used by Apothecaries more than Chemists and Druggists . With the implementation of that Act, the State indirectly paid for the prescriptions dispensed from specific hypothecated funds which were contributed partly by eligible citizens and partly by their employers.

The only perceptible change in the practice of pharmacy by the Chemist and Druggist was by their attempts to increase the number of prescriptions they dispensed in any given time.

The enactment of the 1911 National Health Insurance Act [4] created a new environment and a new payment source which resulted in a codification of the system of payment. The system also became national in that all were paid the same amount for the same service.

Prior to the enactment of the National Health Insurance Act, the very poor were assisted by the provisions of the Poor Law. Successive Governments encouraged mutual help by making the provisions of the Poor Law hideous. This resulted in the foundation of Friendly

Societies, which became major institutions for social security. These were social as well as social security institutions and were convivial groups as well as providing mutual help to members who were in need. By 1900, there were reported to be 24,000 such societies with 4.5 million members [19]. Membership was taken for granted by the better paid artisan and the middle classes and was a symbol of respectability and independence. The societies provided sick pay, medical care and a death benefit. Normally, the medical care was provided by a medical practitioner contracted to the Society. Contributions were between 1% and 2% of the average weekly wage. By 1911, a number of amalgamations had taken place and, although small societies still existed, there were three or four very large national societies [107].

Overlapping them were trade unions. These offered sickness benefit, death benefit and, in many cases, unemployment benefit to their members [107].

Half the population was covered by one or other of these two types of institutions. Neither, however, appealed to the lower middle classes or the working classes, who earned too little to pay even 1% of their wages per week. The best they could do was pay into industrial Assurance Societies, whose agents called at every member's home every week. What they paid for was a funeral grant only. Two of these, namely *The Prudential* and *The Pearl,* had substantial capital invested in property and stocks. There were a few collecting Friendly Societies, including *The Royal Liver* and *Liverpool Victoria*. They were, therefore, powerful institutions with vested interest in challenging any changes proposed by the Government which could reduce the number of their clients [107].

The National Insurance Act of 1911 [4] produced such a challenge. This Act, which became law on the 15th July 1912, was entirely different from that originally proposed by the Government in 1908. The changes which occurred were due to the powerful political pressures exerted by the aforementioned institutions. The Government wished to base the scheme on the non- contributory old age pensions scheme which became law in 1908, and on the then German scheme. It was proposed, however, that it would be, unlike the old age pension scheme, a contributory scheme, because of the greater costs involved. This latter type of scheme was competitive with the schemes run by the Friendly Societies who, therefore, opposed the proposed State scheme. The medical and pharmaceutical professions were opposed to medical and pharmaceutical schemes being run by the Friendly

Societies. All these parties, from their various positions, purported to regard self help as morally and socially preferable to a compulsory State provision and also, for good measure, they regarded State Welfare as being devised to enable employers to evade demands for higher wages and regular employment [108].

There were, in effect, two schemes proposed, namely medical and pharmaceutical services, and cash benefits such as sickness and death benefits. The original proposal had the Friendly Societies managing both these separate schemes. The Industrial Insurance companies and the collecting Friendly Societies did not wish to provide medical care, and they did not want local committees interfering with their marketing of insurance policies and the collection of the weekly premiums. They formed the "Combine" to fight the proposals. The British Medical Association (BMA) and the Pharmaceutical Society of Great Britain (PSGB) (it did not become Royal until the late1970s) were the Combine's ready allies, since neither the medical practitioners nor the pharmacists wished to work for the Friendly Societies, nor did they wish the proposed Approved Societies to administer the medical and pharmaceutical services. In some ways, the combination of the BMA and PSGB as an alliance was unexpected, since the BMA had long resented the independence of the medical consumer who used pharmacies for treatment rather than medical practitioners. The doctors had sought to gain control over the independently minded patient by curtailing the practice of self medication and prescribing by the Chemist and Druggist. The Friendly Societies, in the late 19th century, imposed a further threat to medical independence, since they contracted with doctors. The doctors were, in effect, employees of the Friendly Societies and under their control. The BMA resented the fact that 'medical gentlemen' could be hired and fired by committees of labouring men. They also believed that an increasing proportion of members of Friendly Societies could well afford private medical fees. However, the profession was overstretched and could not impose terms on the Friendly Societies [19].

In the first draft of the Bill in May 1911 [4] the Friendly Societies were to administer the medical care without any form of medical representation. The BMA listed six cardinal points as the minimum conditions under which it would recommend to medical practitioner, as a basis for co-operation with the Government's proposals on medical services. These included:-

(i) Administration by local health committees (and not by Friendly Societies).

(ii) Method of payment to be decided by the medical profession, and the discipline of the profession to be settled by medical committees composed entirely of doctors.

(iii) Payment to be adequate (this was defined as a capitation fee of 8/6d[42½p] per patient per year, excluding the cost of medicines, against a Government proposal of 4/-[20p]).

(iv) Only those earning less than £2 per week would be allowed to enter the scheme (anyone earning more would be required to make extra payment to the doctor).

(v) Free choice by patient of his doctor, subject to agreement of the doctor.

(vi) The medical profession had adequate representation on all committees of the scheme.

The Pharmaceutical Society acted at about the same time. As with the BMA, the PSGB was against the involvement of the Friendly Societies, particularly since Friendly Societies had indicated previously that they might not use the services of the Chemist and Druggist but instead establish dispensaries of their own; at least in the large conurbations. Indeed, they proposed providing manufacturing, wholesaling and dispensing services under their own ownership. The Editorials in the Pharmaceutical Journal (PJ) suggested that chemists did not wish to bargain or negotiate with Friendly Societies. They wished to bargain or negotiate directly with the Government [109-111]. It is an open question whether the recent proposals to decentralise negotiations and consultations from the Government level to the Health Boards will result in the same antagonism .

As with the BMA, a group representing all the interests of pharmacy, including multiple retailers such as Boots, presented their seven point plan to the Government. These seven points were as protectionist as were the six points of the BMA [112]. They included:-

(i) That all supply of medicines should be from the premises of statutory registered Chemist and Druggists under the 1908 Pharmacy Act (this included independent and corporate firms, as well as independently owned pharmacies).

(ii) All dispensing under the Act should be carried out by a pharmacist or under his supervision.

(iii) A local panel of Chemists and Druggists wishing to provide a service be drawn up enabling insured persons to choose their own pharmacy.

(iv) That remuneration should be on a 'scale system' and not (as they had been offered) on a per capita basis.

(v) That pharmacists, like doctors, should be represented on all local and on national insurance committees.

(vi) The scheme should only be available to persons earning less than £160 per annum.

(vii) The scheme should be handled by the Health Insurance Committees and not by the Friendly Societies;

£160 was the figure at which people became liable to pay income tax [113]. With regard to (iv) above, it is worthy of note that there is a current (1997) body of opinion in Government and professional circles which advocates a per capita payment system to be used to remunerate community pharmacy under the NHS [114-115].

The pharmaceutical profession clearly wished State insured persons to obtain their medicines in the same way as privately insured or independent persons obtained their medicines; that is from legally qualified Chemists and Druggists. The remuneration system should also be the same, namely a mark up on the cost of the products supplied. The per capita system, which would have tied the insured person and his family to one Chemist, was firmly rejected at this period of the discussions (i.e. early if 1911).

The Chemist and Druggist and medical professions did not wish to see selected practitioners being contracted to provide State services. It was believed that this would result in the Government using this section of the profession to dictate the method and quantity of remuneration for all even those outside the scheme. This, in turn, would (or could) set the going or market rate for the job in the private sector. [116-117] This is, in fact, the circumstance now pertaining in Denmark and other European countries and to a lesser extent in Scotland.

The medical profession wished to gain the poor patients, who had been unable or unwilling to join Friendly Societies, and who did not use doctors for their medical care. At the same time, they wished to retain their private patients. Pharmacists would still have the "poor" patients who had previously used their services, unless the Friendly Societies or the doctors found a way to divert them in another direction. Also, the qualified Chemist and Druggist would gain custom from the unregistered drug stores, which were run by unqualified staff.

Both the Chemist and Druggist and medical professions were opposed to a full time State salaried service, but they differed on how they wished to be paid. This is of some

significance to this thesis, since the indications are that, in contemporary terms, pharmacy is increasingly questioning the item- of service, "tiers payant", type of payment [5] and debating whether a capitation fee, professional allowance or similar "tiers garant" system is more acceptable. In 1910 and 1911 doctors believed that a system, such as the latter, would encourage preventative medicine, early diagnosis and treatment. It would appear that pharmacy is (in May,1997) coming round to that viewpoint. In 1911 the pharmacists wished to be paid per item of service since no one, they argued, could forecast what medicines would be required in advance, thus, it would be an imposition on the Chemist and Druggist and a restriction on the insured as to what treatment he/she could receive. It must be observed that hospitals in the public sector operates such a system with none of the suggested adverse effects. Also, the pharmacy profession rejected a per capita system because of its fear of the European system of tariff or scale payment used at that time in most countries on the continent. Another expressed fear was that, as with doctors, a per capita system would require registration with one pharmacy. However, in forcibly arguing the case, the profession assumed that the insurance fund would always be sufficient to cover the total costs of the medicines and other treatments which would be required. That was not and is not the case (see below).

In 1911, after all the discussions and debates, in the lead up to the implementation of a Health Insurance Scheme, the medical service benefits schemes (including pharmaceutical benefits) were to be managed by Health Insurance Committees which were composed of local doctors, pharmacists and representatives of the local authorities and of the insured. On the other hand, the administration of cash benefits, (e.g. sickness benefit, death benefits, disability benefit, childbirth benefit given to the wage earner and his family) was by what were called "Approved Societies". Friendly Societies became Approved Societies for this purpose [118].

As far as remuneration is concerned, what they eventually settled for has had a profound influence on how pharmacists have been and continue to be remunerated within the current State system.

What they settled for, or had imposed upon them was in today's jargon a "cash limit" of 2/- [10p] per person per annum on the cost of medicines, to include payment for the professional pharmaceutical service provided, since the 2/-[10p] included both the cost of

the medicines and the mark up and fee for dispensing. If the fund overspent, the excess eventually came from the payments to pharmacists, either by the fees being reduced or payment being suspended altogether. This is still, in some ways, the case with the present system. In some respects, this was a centrally decided de facto per capita allocation system, although it was not paid out in that way.

One of the reasons why the pharmacists accepted the payment system was the Government's intention to separate dispensing from prescribing. As Lloyd George stated, the intention was "to separate the drugs from the doctors," so that there ought to be no inducement for "underpaid doctors to take it out in drugs" [19]. It was also argued by the Government that by separating the two, doctors would be free to prescribe the best and not the cheapest drugs and indicated that the Government would accept the consequences of the increase in costs resulting from this. However, to encourage doctors to prescribe economically, they were given a financial inducement. Of the 9/- [45p] per person total medical benefit, 7/6d [37½p] would go to the doctors and 1/6d [7½p] to the cost of the pharmaceutical services. If the cost of medicines was more than 1/6d an extra sixpence [2½p] would be made available to pay the pharmacists for goods and services. If all or part of the 2/-[12½p] was not used, then the amount saved up to 6d[2½p] would be credited to the account of the doctors. This was known as the *floating sixpence* and has ghosts still appearing today. If the bill was over 2/-[10p] per person then the pharmacist would be held to account, (see below and Chapter 3). Thus, doctors could increase their income by denying patients necessary medicines, whilst pharmacists would be required to fully fund the service they provided if doctors prescribed excessively. Again, there are remnants of this in the current philosophy of pharmacists' remuneration. For example, the primary care pharmaceutical budget includes the cost of medicines and the remuneration of the pharmacists. When the budget is fixed (i.e. cash limited) it is inevitable that if the drug bill increases then the amount available for remuneration will be proportionally reduced.

The BMA fought against the separation of dispensing and prescribing, except in special circumstances (which were different in Scotland and England), but lost the battle [119].

The NI became law on 15 July 1912 and the first prescriptions began to be dispensed on or about 15 January 1913. The delay was because of the failure to arrive at an agreed capitation fee for doctors. An original offer of 4/- [20p] was increased to 4/6d [22.5p] per

patient per annum and was further increased to 7/6d [37.5p] (without drugs) in spite of an independent study which showed that the average income per patient of doctors, prior to the Act, was 4/2d [21p] including drugs. In a similar way to the ethics of the medical profession in France, the BMA made opposition to this an ethical issue. It required doctors to refuse to provide a general medical service unless the fees received had been approved by the BMA. The Government failed to move and, by the turn of the year (1912/13), 15,000 of 26,000 doctors had broken ranks and agreed to join the NI service [118].

One social point which pharmacists (and doctors) must bear in mind when entering into a State service, such as the NI scheme which was funded by the direct contributions of the public, particularly, as in this case the poor public, that it is a transfer of income from manual and other low paid workers to the professions. This is often done by applying a regressive poll tax, (i.e. a flat rate insurance contribution). It is not surprising, therefore, that the recipient of the service wishes a say in the quality and quantity of the service received. This is true even if it is funded by a progressive income tax, such as is the NHS, although in this case the high tax payers also wish a voice in the provision and the conditions of the service provided.

The first remuneration system for pharmacists, under the NI provisions and which had a national dimension, thus began in January 1913 [19]. The payment system was designed to pay for reimbursement of ingredients and a dispensing fee. However, only up to a level which the Government found acceptable. This has not changed.

There are several lessons to be learned from the run-up to the introduction of the service with regard to remuneration systems for pharmacists. For example, the pharmaceutical profession (at that time called the Chemists and Druggist profession) accepted that the contract for the provision of the services would be with the owner of the pharmacy, whether that be an independent owner or a corporate company [19]. It was normal for NI panel doctors to employ assistants to treat insured patients (whilst they treated their private patients). However, it was as normal for qualified pharmacy owners to employ managers and assistants as it was for unqualified owners, such as corporate companies and other unqualified owners. Besides, it was argued that the contract was not only for professional services, but for the supply of commercial goods. The latter required capital and replenishment of the costs of goods and the provision of premises, transport, equipment

and other overheads. This position is exactly as it is today, and the same arguments will have to be overcome if changes are to be made in this arrangement. Perhaps, this is one of the reasons that there has been an increase in the number of consultant pharmacists in the USA, (and, indeed, in the UK), who do not dispense medicines or sell or supply medicines as part of their professional services (see Chapter 8). In these circumstances, whilst they require capital to run their consultancy business, they do not need to fund the purchase, storing and supply of products nor the upkeep of retail style premises to enable their professional activities to be carried out in a safe and efficient manner. Also for business reasons, the Chemist and Druggist did not wish a capitation system since it was believed such a system would stunt the growth and expansion of the prescription dispensing side of the business.

THE NI REMUNERATION SYSTEM (1911 - 1948).

Initially, the NI dispensing was often a relatively low percentage of the turnover of the pharmacy, depending on the social class composition of the area serviced by the pharmacy. For example, in West London, one shop, in the first year, received £25.11s.1d, representing 0.98% of turnover, whereas another received £190.16s.1d, representing 7.83%; whilst in Canning Town, one had £616.9s.8d, representing 58% of turnover, and another £511.14s.1d, representing 44%. Pharmacies which previously dispensed only one or two prescriptions a week now received several hundreds, but their "counter" prescribing income fell. Pharmacies had to price their own prescriptions and often were on the panel of several Insurance Committees. All prescriptions had to be entered in the prescription book to satisfy Poison Regulations, and extemporaneous dispensing was just that, since there were no reputable formularies [120] and few proprietary medicines were available or included in the scheme.

It follows that the net profit arising from NI dispensing was negligible because the basis for remuneration was unsound. There was no substantive, objective reason for the 2/- per head, other than some hearsay evidence from Friendly Societies, and whilst the pharmacist was paid for the ingredients and a mark up plus a fee, the "capitation" payment which they had rejected was, in fact, imposed at a national level and was arbitrarily arrived at. It must be noted that the mark up allowed was 50%, which in todays terms would be regarded as acceptable.

The fee structure was as follows:

1. the cost price of the ingredients used;
2. 50% mark up on (1);
3. a fixed scale of dispensing fees for the more complex prescriptions.

(e.g. for an 8 fluid ounce mixture, (which in England accounted for 50% of the average dispensing of a Chemist and Druggist) the fee was 2d [1p]. The highest fee was 6d [2.5p] for an extemporaneously dispensed plaster. This system was known as the tariff system [121].

It should be noted that there was no dispensing fee for many simple preparations, such as solids, pills, capsules, tablets and ointments, which were included in the Drug Tariff.

It should also be noted that the contract under which Chemists and Druggists provided a NI service was for three months and no payment was made until the end of that period. In the first instance, many Insurance Committees did not know how many insured people they were catering for and, thus, they did not receive from the centre sufficient funds to pay the pharmacists in full. As a result a system of discounting all accounts was adopted. The Scottish pharmacists never accepted discounting nor the floating sixpence (see above). The latter was finally abandoned in the whole country in 1920 and discounting in 1926 [122].

Obviously, there was dissatisfaction and, after pressure from the PSGB, a Government Departmental Committee was set up. As a result of its enquiry, new fees and a new tariff were introduced in 1916 The new fees and the new tariff more accurately reflected the costs of providing the service [122].

However, the dissatisfaction was not enough to persuade the Chemist and Druggists that the National Insurance Scheme was not in their best interest and that they should withdraw. The reasons for this was that it ensured that dispensing was limited to pharmacies and it brought business, including extra commercial business, into the shop.

It is of note that over the first thirteen years, £9.25 million was spend on the NI, £2 million of which went to the pharmacists. (That is the pharmaceutical service's budget was 17.7% of the primary care budget) In 1937, it was reported that £11 million went to the doctors and £3 million on pharmaceutical services. That is the pharmaceutical service's budget was

21.4% of the primary care budget. In 1997/98, it was 12.12% in Scotland(see Chapter 3). (It is a matter only of comment that there was no dental or optical service included in the NI scheme).

There has always been a difference between the basis of the system and its effect in Scotland and England. Shops were larger in England. In 1937, the annual average number of prescriptions per shop was 5,000 in England and Wales, and 1,800 in Scotland. The average payment per shop was £175 in England and Wales, and £98 in Scotland [19].

Between 1916 and 1937, the Tariff was gradually improved but there was no change in principle on how the remuneration was made up. In 1937, the system was as follows:

1. Cost of ingredients were calculated according to a standard price list. This was the retail cost. (i.e. it included a mark up on the wholesale cost).

2. A dispensing fee was paid according to the nature of the article dispensed. There was still no fee for basic products.

The average figures in England in 1937 was 3.96d[1½p] for ingredients and 4.35d[2p] for fees. In Scotland, the "chemist" was paid an additional profit on the cost of the ingredients, giving an average in 1937 of 5.67d[2½p] for ingredients, 2.83d[1p] for profit and 5.23d[2½p] for the fees [19].

In 1948 when the new National Health Service Acts came into force, the average pharmacy in England and Wales dispensed 9,642 prescriptions per annum of which 7,433 [77%] were NI prescriptions. Only about 20% of prescriptions for private patients were sent to pharmacies. In Scotland, the average pharmacy dispensed 10,102 prescriptions, of which 6,553 [65%] were private prescriptions and only 3,549 [35%] were NI. 90% of doctors in Scotland sent their private prescriptions to pharmacies [123].

One of the consequences of this was, that the pharmacists in Scotland wished to continue to negotiate with the Government separately and not be part of the English negotiating machinery. The Working Party [123] concluded that the systems in the two countries were so

different that the negotiations could continue separately. This has remained unaltered until the present day.

In 1948, negotiations in England and Wales were completed by 18 June and, in Scotland, by 1 July.

The early fees for the new NHS (i.e. post 1948) had the same mixture of methods as there is in 1997. In 1948, the principle of a mixture of items of service fees for professional work done and mark up on the cost of medicines supplied was firmly reinforced. However, the NHS Act[91] and its subordinate regulations defined the pharmaceutical services as the supply of medicines and included only those professional practices directly involved in dispensing, which was defined as a supply activity. Subsequently, professional practices which were not associated with the supply of a product could not be remunerated. This remained unaltered until 1988 and was not totally changed until 1996 -97 [124]. In fact the new regulations still tie, to a degree, the new services which are now available to the supply of products.

THE DEVELOPMENT OF THE NHS REMUNERATION SYSTEM IMMEDIATELY POST 1948.

From 1948, payment was made in accordance with the Drug Tariff (which is, in fact, sub legislation). This legal document specifies the quality of the materials and the actual prices to be paid or the method of computing the prices. The Government prepared the Tariff with the intention of updating it frequently.

The payment system was thus:

1. Wholesale cost of ingredients or appliance, as provided for in the Drug Tariff. (NB The NI payment was based on the retail cost).

2. A mark up of $33^{1}/_{3}\%$ to cover all overhead expenses and to provide a profit margin.

3. An average dispensing fee of 1/- [5p] with separate, increased rates for specified special dispensing services.

4. A container allowance of 2½d [1p] per prescription item.

It should be noted that (1) and (2) did not alter the 1947/48 NI rates (except for the change from retail to wholesale cost), (3) increased the NI rate from 6d to 1/- and (4) was an entirely new payment since, under the NI, the patient had to supply his own container or pay the pharmacist a returnable deposit on a new one.

Assuming a constant cost of ingredients and the mark up, the average NHS rates were a considerable increase on the old NI rates. The former was 30½d[12½p] per item, compared with 22d[10p] per item in the latter.

In the early days of the NHS, there was no philisophical change in the payment system or in the practice of the profession. The only material change was that the NHS was funded from the general taxation and not from the national insurance contributions. The latter now funds sickness, unemployment and pension benefits.

THE SIGNIFICANCE OF CHANGES MADE IN REMUNERATION SYSTEMS 1950 -1995.

The remuneration of community pharmacies which are contracted to provide NHS services in Scotland, is negotiated separately between the Government in the shape of the Scottish Office Department of Health and the Scottish Pharmaceutical General Council. In 1948 a Working Party[123] was established to determine, whether the system under the NI where Scotland, England and Wales negotiated separately, should continue. There were major differences in the fee structure (but not in the principles which underpinned it) which represented the remuneration system. The Working Party observed and documented "differences in practice", which led to different levels of payments. For example, England received a 28½% mark up plus a dispensing fee, and Scotland received a $33^{1}/_{3}$% mark up and no dispensing fee. There were differences in the prescribing and dispensing of mixtures and to a lesser extent in ointments, creams, pastes and pills, which apparently justified the different approaches. The Working Party concluded that, though it would be possible to devise a single Tariff, the differences between the countries was such that separate negotiation should continue. And they have. It is for this reason that this study can

concentrate on the Scottish systems, whilst not ignoring the significant changes in England and Wales [123].

Whilst there has been little change in the principle systems used to remunerate community pharmacies, there have been trends in the systems. The most notable has been the gradual reduction in the percentage mark up payable. In Appendix 4, the fees and on cost payable are detailed for 1952. It will be noted that the mark up (on cost) is 25% of the total cost of ingredients (in 1948 this was $33^{1}/_{3}$%). In 1954 this had been further reduced so that in the Drug Tariff of March 1954 it was 22½%. By 1963 this had been further reduced by the appearance of a sliding scale of mark up. The first 500 items per calendar month resulted in an on cost of 25%, 20% for items 501 - 750 and 12½% for the remainder. This, no doubt, was based on the principle of economy of scale; the larger the turnover the lower would be the unit cost of dispensing each item/prescription (see Appendix 5).

It is of interest to digress here, to look at some of the details of the substance of arguments, between the representatives of the pharmacists and the Government in the 1950s and early 1960s, which resulted in these changes.

Dispensing doctors were treated more favourably, since they could choose to be paid on the same basis as "chemists", or receive a capitation fee (which chemists refused) and receive additional payments for expensive drugs and appliances [125]. This caused disatisfaction amongst pharmacists.

The number of prescriptions rose from 71 million in 1948 to 241 million in 1952, and because of this increase in work, full pricing was abandoned, and pricing was based on a 25% sample of prescriptions under 2/6d [12½p], with full costing of more expensive items. In spite of this, it took from 1948 to 1952 to clear the arrears. Full pricing was not introduced until 1959 [126].

From May 1950, the dispensing fee in England and Wales was increased to 1/1d [5½p] and in Scotland it was increased from 1/3d [6½p] to 1/6d [7½p] both back dated to 1/7/48. However, the first move to remove on cost (or mark up) was made by a reduction on this element, from $33^{1}/_{3}$% to 25%, and the container allowance from 2½d [1p] to 1¼d [½p].

The Hinchliffe Committee [127] (1959) suggested that what the Government paid to the 'chemists' for the medicines they dispensed was less than the price would have been if the medicines had been sold privately over the counter.

In 1951, when the pharmacists claimed that the fee was too low, the matter was referred to an arbitration tribunal. The pharmacist's case was based on a survey of the salaries paid to pharmacy managers, the number of items dispensed in a month and the number dispensed in an hour. They maintained, that the number of prescriptions dispensed in an hour, multiplied by the dispensing fee, plus a profit to cover overheads, should equal the hourly salary to the pharmacist, and that the mark up on the products dispensed should cover the other costs of the business, together with a profit; the latter reflecting a return on the capital invested in the business. To reflect this the remuneration was logically and correctly separated into fees and mark up. As we have seen the award was a dispensing fee of 1/6d [7.5p] and a 25% oncost, retrospective to the beginning of the NHS in 1948 [128].

There was thus a tacit agreement that there was a difference between payment for professional services and that for the retailing or dispensing of products. This was not only acceptable in the 1950s and 60s, it was an objective of the remuneration system.

In 1955, the Government was of the view that, because the cost of the ingredients had risen (giving the "chemist" uncovenanted profits), the percentage value of the oncost should be reduced, and further as the number of prescriptions dispensed in an hour had increased, there should be a reduction in the dispensing fee. The latter action emphasised that it was recognised that there is a relationship between the level of the fee and the work done. There is no such relationship in the current system.

In 1956. the profit to be included in the mark up paid was based on profit on turnover rather than return on capital invested or employed. At the same time, the principle of differential remuneration was accepted by both parties. It is notable that, at this time, the income generated from fees was greater than that generated from on cost (mark up) [129].

In 1958, the first seeds of a cost plus contract were sown, with the introduction of a fact finding exercise into the costs which the pharmacies incurred in providing the service. This

was done by examining the costs of a statistical sample of the pharmacy contractors. (They were at that time known as "Chemist Contractors").

It was not until 1959 that full pricing of every prescription dispensed was introduced (see above) and the concept of the Notional Salary of the Working Proprietor (NSWP) was accepted as a legitimate cost element, as well as the salary of the manager of the business, if one was employed.

In 1962, the Government returned to fixing profit based on return on capital invested or employed, rather than on turnover.

It was only after the cost plus contract was fully accepted and established, that the NSWP was to include all the duties performed and hours worked by the proprietor on the NHS side of the business [130].

The cost plus contract was a major innovation. From 1962 until 1988, pharmacies were grouped into six bands, based on the number of prescriptions dispensed each month. The costs incurred in providing the NHS service were measured frequently, using an agreed statistical sample. The aim was that in each size of practice (shop), the costs reimbursed would equate with the actual costs incurred by each practice within each band. To this would be added a negotiated return on capital invested which was termed profit. Since only supply could be remunerated, what are now termed as cognitive services were built into the dispensing or supply process and the cost of the time of staff, as well as other costs, were measured for each item dispensed. Thus the time and resource required to give advice and guidance to patients was considered a dispensing practice, as was advice to a patient when a product was asked for but not sold. The total resources required to fund these costs were then arrived at. Payment was made by means of a sliding scale of mark up, a sliding scale basic dispensing fee, plus special additional dispensing fees, where a complex dispensing technique was required. The intention was that every pharmacy, in each band, recovered the costs which they had actually incurred in providing the services plus a negotiated profit.

There is a history of disputes between the contractors and the Government about the mechanics of this system, and on the level of profit allowed. The pharmacists'

representatives argued that the costs arrived at by statistical sampling were not a true representation of the costs actually incurred in every pharmacy and that anomalies occurred at the margin of the bands . For example, a contractor, at the high end of a band, would frequently lose income if he moved to the lower end of the next higher band. Bands were based on the number of items dispensed every month. Also it was argued, that the profit arrived at was at the lower end of that which similar retail businesses could reasonably be expected to receive. The Government argued that the system had no inbuilt incentive to induce the contractors to be cost efficient (indeed the reverse was implied), and that the profit should be lower than other high street retail business, since there was little element of commercial risk involved in the NHS side of the business [131].

In 1977, there was a radical change in the amount allocated to the primary care pharmaceutical budget. The Department of Health and Social Services (DHSS) issued a planning document entitled *The Way Forward* [132]. This, together with a Priorities Document, represented new a direction in Government policy calling, as it did, for a relatively higher growth rates for some services than for others. These documents gave no rationale for the growth rate chosen, although it informally gave an unquantified reason for the proposed decrease in the growth rate of the pharmaceutical budget.

It was accepted by the Government and others that there are problems in conceptualising and measuring "need" [133] but it suggested that an arbitrary method for prioritising the allocation of resources was satisfactory at that time [134].

The review suggested that some of the services should have the resources which were allocated over the succeeding three year cycle increased and others decreased. Alternative 2, which decreased the growth rate of the pharmaceutical budget was the one chosen. It will be seen that from 1976-77, the pharmaceutical budget was one of the three which together would be reduced over the period, so that the projected spend in 1981-82 of £3295M (at 1976 prices) should become instead £3095M. The Scottish budget was similarly reduced (see Table 2 parts 1 and 2).

TABLE 2 (Part 1)

planned and recommended revenue expenditure on selected services (£m; November 1976 prices)

Services to be given higher priority than at present	1976-77 *actual*	1981-82 *DHSS projection* (1978)	1981-82 *Alternative 1*	1981-82 *Alternative 2*
1. *Health and Welfare of mothers and pre- school and school children*				
Midwives	24	24	26	28
Family planning	12	15	20	21
Health visiting	47	63	66	70
Day nurseries	33	37	60	63
School health	51	51	60	65
Welfare food	18	19	40	43
Boarding out	20	26	28	30
Sub-total	205	235	300	320
2. *Family practitioner* (other than pharmaceutical)	440	494	514	547
3. *Care of disabled in their own homes*				
Home nursing	81	108	116	124
Chiropody	11	13	13	14
Home help	105	131	160	170
Meals	12	15	20	21
Day care	57	76	90	96
Aids, adaptations	13	14	30	32
Services for disabled	42	40	50	53
Sub-total	321	397	479	510
4. *Other specific preventive measures*	14	17	50	53
Total selected "higher priority" services	980	1143	1343	1430

TABLE 2 (Part 2)

Planned and recommended revenue expenditure on selected services (£m; November 1976 prices)				
Services to be given smaller priority than at present	1976-77 *actual*	1981-82 DHSS *projection* (1978)	1981-82 *Alternative* 1	1981-82 *Alternative* 2
Recommended increases (Total 1,2,3 and 4)	—	—	+200	+287
5. *Acute in-patients and out-patients*				
6. *Mental handicap in-patients and out-patients*				
Mental illness in-patients and out-patients				
Residential care for elderly				
7. *Pharmaceutical services*				
Total selected "lesser priority" services (5+6+7)	2992	3295	3095	3295
Recommended decrease "lesser priority" services (5+6+7)	—	—	-200	0
Experimental ten-area programme			(30)	30

It was calculated by the Government, that the pharmaceutical contribution to the reduction could be accommodated by a fall in the price of drugs purchased by community pharmacies for the use of the NHS. This was based on the fact that the Voluntary Price Regulation scheme which the Government had re-negotiated with the Association of British Pharmaceutical Industry (ABPI) in 1976, was now the Pharmaceutical Price Regulation System (PPRS), and it was thought that the new terms of this voluntary agreement would decrease the profits of the pharmaceutical industry. The scheme was indeed aimed at reducing the profits the pharmaceutical companies received on sales to the NHS; and it

achieved that. It was thought by the Government that, as a consequence, this would bring about a reduction in the pharmaceutical budget and would have no material effect on the remuneration of community pharmacies [135].

In the event, the anticipated fall in the drug bill did not materialise even although prices did fall. Other factors, such as the introduction of new, potent and expensive products, and the increase in the proportion of elderly patients, ensured that the drug bill increased at a rate greater than the fall in the prices induced by the new terms of the PPRS. As a consequence, the remuneration of community pharmacies became under severe pressure. The settlements of the remuneration in the years 1981-82 and in 1982-83 reflected a fall in the pharmaceutical budget, and put the cost plus contract into deficit. This pressure resulted in the eventual removal of the cost plus contract (see Chapter 3). The global sum has never fully recovered from, in effect, a reduction of some £150M in England and Wales and £15M in Scotland (at 1976 prices) [136]. This reduction has never been made good.

Eventually, after an unilateral internal Government review of the consequences of this fall in allocated resources, the cost plus contract was stopped (NHS Circular No. 1988 (PCS) 27 see Appendix 6). A system of direct negotiations based on the Government's contemporary policies regarding total resources which could be made available, and on the continued viability of the services required, was substituted for a system which had at least an element of logic and fact, even if the facts were disputed on an annual basis.

At the same time as the cost plus contract was in existence a separate balance sheet was in existence for the reimbursement of the cost of ingredients and for the products supplied. In theory this system was intended to reimburse the contractors for the acquisition costs of these products and ingredients. The reimbursement cost was the wholesale cost less any discounts received by the contractors. Discount enquiries were held on a statistical sampling basis and the resulting discounts measured were contracted into a sliding scale which attempted to reflect the perceived facts that pharmacies with the larger volume of throughput would receive larger volume discounts than those with a smaller throughput. The costs of stocking and the work involved in achieving the discounts were taken into account in arriving at the net discount figure [136].

With the removal of the "cost plus contract", this separate balance sheet has also been discontinued, although the measurement and recovery of discounts received continues. The "global sum", therefore, covers all remuneration and reimbursement.

Since 1988, the mark up method of allocation of payments was first progressively reduced and finally eliminated and a three level basic fee system reduced to a single basic fee. A professional allowance based on the minimum number of prescriptions (items) dispensed each month together with differential extemporaneous fees and payments for cognitive services has been progressively introduced. The cash limited global sum has been made available by the Government, and the payment system is calculated to pay out this sum in each fiscal year. If the outcome results in an overpayment, the fees for the following year are set at a level to recover the overpayment. A similar arrangement in theory would result if there ever was an underpayment [137].

As far as the reimbursement of the cost of purchasing the ingredients and the products supplied is concerned the system remains largely as explained in Chapter 3.

The payment for some cognitive services (Appendix 3) introduced in the 1988 has continued and the amount increased over succeeding years. (Appendix 3). Also the patient medication record scheme and advice to residential homes have been extended (see Appendix 2). In 1996 the separate payment for the first of these services was disbanded and included in the professional allowance. In the case of the latter, payment was included amongst those services subject to local negotiations (Appendix 1).

DISCUSSION

As can be seen from the foregoing, the history of the remuneration system is long and the current system is still largely based on the old system of mark up and dispensing fees, although "on cost" (mark up) has now all but disappeared. This history demonstrates that change is slow and that progress in pharmacy practice, new philosophies of health care development and changes in NHS organisation and management and increased expectations of patients cannot be easily accommodated within the rigid system which was designed as long ago as 60 years. In spite of the radical changes in NHS organisation and management and in the practice of community pharmacy, the basis for remuneration has changed very

little. It follows, therefore, that although the remuneration system could be further adjusted to better accommodate these changes, a new contract which redefined the objects of the primary care pharmaceutical service and the patient outcomes which it is aimed at achieving is the more logical method to construct a more relevant and modern remuneration system. However, this study continues to address how the remuneration system could better be reconstructed within the current contract. It also attempts to suggest what a new contract should contain based on the difficulties encountered in such a reconstruction.

CHAPTER 8

THE ORGANISATION OF COMMUNITY PHARMACY AND REMUNERATION SYSTEMS ADOPTED BY SOME OTHER COUNTRIES

GENERAL INTRODUCTION

The organisation of community pharmacy and remuneration systems in some other countries are now described. The organisation of community pharmacy in the countries studied varies from total State control with accompanying rigid planned distribution of community pharmacies and the central fixing of prices and costs to a system where community pharmacies exist in a near free market involving corporations as well as pharmacist owned businesses. Equally the systems of remuneration vary from pharmacists being employed by the State, through pharmacist owners in contract to State Health Agencies, to owners contracted to insurance companies and to Managed Care organisations. The precise payment system for contracted pharmacies varies from a mark up system and nothing else, through a combinations of mark up and fees of various kinds, to a combination of mark up, fees, retainers and allowances. In some cases the community pharmacy service is closely integrated into the State Health Service, whilst in others there is a loose link, in others there is no link whatsoever and in others an arm-length contract for specific services. Although the vast majority either have only a mark up system or a mark up system with a rudimentary fee added, there is evidence that there is a move in virtually all countries studied towards a fee and /or allowance system. This is particularly so in those countries which are adopting the pharmaceutical care philosophy which has been introduced in the USA in the last ten years (see Chapter 5). Even in other countries there is evidence that patient orientated payment systems are emerging. However, there is also evidence that payment for that part of the service which involves dispensing and distribution the mark up system is not being totally removed or compromised. This apparently is causing some difficulty for providers of the service when a fixed upper limit on resources exists.

How various countries are coming to terms with the new practice requirement is considered in the next part of this Chapter. Also such details as there are from countries which have similarities of various types with Scotland are discussed in detail. The objective

of this is to give indications which could be used as a basis to construct new remuneration models and a revised organisational structure which may be appropriate for Scotland and which will meet the criteria discussed in Chapters 2 and 5. It is intended that how this could be achieved would form the basis for a subsequent study.

In some countries pharmacies have a sole monopoly on the sale of all medicines. In others they only have a monopoly on those medicines which require a prescription and those medicines which are classified to be sold or supplied from a pharmacy; other medicines being available from other outlets. In some dispensing doctors are allowed and in others dispensing doctors are only allowed in restricted circumstances. In others there are no dispensing doctors.

The countries which did not meet the criteria in Chapters 2 and 5, but which could be of interest, were briefly examined as follows:-

AUSTRALIA

Australia has been in a position where some States had registration control whilst others had a UK type system, where the professional body, i.e. the Pharmaceutical Society registers and control pharmacists and pharmacies. The remuneration system currently involves the reimbursement of the pharmacy owner with the cost of the products, a mark up, a dispensing fee (expressed as a percentage of the cost-price) and a container allowance for those products not dispensed in an original pack. Australian pharmacies do not have a total monopoly of the sale or supply of medicines. [138]. There are dispensing doctors in existence.

FRANCE

In France the law on pharmacy goes back to 1898. There is State control of the number and location of community and hospital pharmacies. Only a pharmacist, or partnerships of pharmacists, can own a pharmacy which is "open-to-the public" Other pharmacies owned by public or private health institutions, mutual benefit and miners' aid funds, for example, are for "internal-practice" and only open to those patients covered by the respective bodies. The need for a community to have a pharmacy is linked to the quantum and nature of the

population to be served. Remuneration is mainly by a mark up on the products supplied although a few fees are payable. The price of the products is state controlled, although the EU Directives on transparency in prices caused a recent re-think of this policy. This resulted in a change in 1994. In that year, the Government in France introduced a new drug pricing scheme. The population is covered by the social security system, funded by compulsory contributions from both employers and employees. Dispensed medicines are now reimbursed at several levels depending on the medicine and the nature of the illness. Very few are reimbursed at full cost, the balance being paid by the patient. This amount is frequently covered by supplementary private insurance which, in some cases, is paid for by employers. Pharmacists are linked by modem to the social security offices and receive accurate payments for dispensed medicines on a daily basis. [139]. Average annual turnover of pharmacies is £0.5 million to £0.6 million, with a gross profit of 35% and a net profit of 10%. Gross profit on dispensed medicines is 27%, but is declining. Approximately 80% of turnover comes from dispensing, 10% from sales of medicines and 10% from cosmetics. There is a legal requirement to employ one or more extra pharmacist(s) when turnover is £0.5 million and over. Pharmacies have a monopoly of sale and supply of medicines [139]. There are, consequently, no dispensing doctors.

GERMANY

There is State registration of pharmacists and pharmacies in Germany, although there has been unrestricted opening of pharmacies since 1960. The remuneration system is almost entirely by the mark up method, though some additional fees are paid. Pharmacies do not have a total monopoly of the sale and supply of medicines [139]. There are dispensing doctors.

ITALY

There is State control of the registration of pharmacists and pharmacies in Italy. The opening of a pharmacy is decided by a provincial medical officer and is operated in such a way that there is not more than one pharmacy per 5,000 population. Thus there is a population criteria for the location and distribution of pharmacies. There is a competitive examination for those who wish to open or take over a pharmacy. The remuneration system is basically the mark up system with some additional fees paid. Pharmacies do not

have a monopoly of the sale and supply of medicines [139]. There are, consequently, dispensing doctors.

NETHERLANDS

In the Netherlands pharmacists must provide services from an establishment owned by a pharmacist and which is a legal State registered pharmacy. There are a little over 900 pharmacies giving a ratio of one pharmacy to approximately 13,000 population. Control over the number and location of pharmacies is achieved by a voluntary agreement of pharmacists, although the State has recently stated an interest in making this control a legal requirement. The State does, however, inspect pharmacies. There is State registration of pharmacies and pharmacists. Insurance schemes reimburse and remunerate pharmacies. Each insured patient must register with a pharmacy. The pharmacist is paid a capitation payment for each registered patient. In addition the pharmacist is paid a small fee, a container allowance and is reimbursed the cost of the ingredients used. With private prescriptions there is a variable mark up (depending on the cost of the product) and a scale of fees for extemporaneously dispensed prescriptions. Pharmacies have a monopoly of the sale and supply of medicines, although there are a few dispensing doctors [139].

RUSSIA

Pharmacy in Russia is in the process of change, although progress from total State control and ownership to a much less centralised and market orientated system is slow. It is clear, however, that a degree of State control over the number, location and registration of pharmacies and pharmacists is likely to continue into a pseudo-market system. As in Denmark and other Scandinavian countries there are two levels of pharmacists. The first has a five years plus University education and the others a two year full-time technical high school education. On average a pharmacy serves 3-4000 of a population. Again there are 'branch' pharmacies as in Denmark, as well as the equivalent of the Danish "pharmacy shops" (termed "POST") (see below). All are required to be manned by those with a pharmaceutical education, and the main pharmacy has to be managed by a fully qualified professional pharmacist. The State sets the retail cost of medicines and, at present, all pharmacy staff are employees and receive either a wage or a salary. Before the changes

referred to, pharmacies had a monopoly of sale and supply of medicines. It is not yet clear whether this will continue [139].

SWEDEN

The pharmacies in Sweden were nationalised in 1970. A firm, termed the "Apotekesbolaget" (the National Corporation of Swedish Pharmacies), has the sole right to own and operate retail pharmacies. The Government holds the majority of shares in this firm, the remainder being held by the previous proprietors of Swedish pharmacies. Before this change was introduced the system was similar to that still operating in Denmark. There remain about 550 pharmacies in Sweden together with "sub-branches" and "pharmacy shops" (as in Denmark). All are owned by Apotekesbolaget. This company negotiates the retail price of the product. The price includes the manufacturer's, the wholesaler's and the retail mark up. The pharmacists are all employees of the company and are paid a salary. Also the location and number of pharmacies is regulated. The pharmacies have a monopoly of the sale and supply of medicines [139]. There are no dispensing doctors.

SWITZERLAND

The number and location of pharmacies is State controlled. Although the Department of the Interior has ultimate responsibility, the control is delegated to Cantons. The rules in some respects vary between Cantons. The number of pharmacies is related to the population covered. Only a pharmacist may own a pharmacy. The State inspects pharmacies. The payment system is by way of mark up with small variable additional fees for specific activities (e.g. extemporaneous dispensing). A high proportion of doctors dispense insurance prescriptions. Pharmacies do not have a monopoly of sale and supply[139].

REASONS FOR SELECTION OF COUNTRIES TO BE STUDIED IN GREATER DEPTH

Ireland, Denmark, Norway and USA were investigated in greater detail for various reasons.

The first criterion used in selecting countries to study was their population. Denmark with a population of 4.6M, Norway with one of 3.8M and Ireland with a population of 3.3M have similar populations to Scotland which has 4.9M.

The second criterion used was countries which have, or have had, similar remuneration systems to Scotland and have changed or intend to change. These are represented by Denmark and Ireland.

The third criterion is the use by the system of a combination of mark up, fees and allowances. This criterion is to be found in Ireland, Norway and Denmark.

The fourth criterion is that there is total or some degree of State or NHS control of the operation of pharmacies such as in Denmark, Norway and Ireland.

The fifth criterion is the study of those countries which have adopted (at least in part) a more radical system which recognises the gradual development of the pharmaceutical care and /or the clinical pharmacy philosophies (see Chapter 5). This criterion is represented by Ireland and USA.

IRELAND

HEALTH CARE SYSTEM AND COMMUNITY PHARMACY

Ireland has a similar population to Scotland and the pharmaceutical services provided by community pharmacy, together with its organisational structure, is similar to that in Scotland. The contract to provide primary care services was not, until comparatively recently, dissimilar to that in Scotland. In 1992 a comprehensive review was commenced of pharmacist's involvement with the Health Service. Negotiations and discussions, together with studies commissioned by Government and the representatives of pharmacy were undertaken, between 1992 and 1995. In 1995 the Government issued a radical change in health policy in a document on Health Strategy. The issue of this document was the catalyst which intensified negotiations with the representatives of the pharmacists. There was apparently a strong desire by both parties to reach an agreement on a future contract for primary care pharmaceutical services. However, there was "a need for

efficiency, flexibility and change....." as proscribed by a Government paper on a 'Programme for Competitiveness and Work. There was also pressure for increased accountability. Within these opportunities and constraints pharmacists sought a new contract which would make a "significant contribution to the long term economic well-being of members of the profession as well as public recognition of the professionalism of pharmacists" [140].

As a consequence of these changes a new contract was agreed in 1996 which satisfied the pharmacists that the "onerous professional responsibilities" of the pharmacists were recognised and compensated. The Government insisted on what it termed, "the requirement for third party verification" (that is a mechanism for ensuring accountability and quality). An agreement has been reached on the limitation of the number of health service contracts; and Regulations to enact stringent criteria for the award of any new community pharmacy contracts [141] have also been made (see Appendix 8 and below where details are confirmed). These latter are not dissimilar to the regulations for this activity in Scotland, except that the population to be covered by the pharmacy is a more important consideration than in Scotland.

In addition to the new contract on the provision of the basic services, some new facets have also been introduced covering;

- the distribution of so-called High Tech products,
- continuing education,
- the development of information technology,
- improved communications between Health Boards and community pharmacists.

Some long standing sources of dispute between the Government and the pharmacists have also been resolved. These issues are as follows:-

- The reimbursement of expensive medicines left in stock.
- A fee for phased (i.e. serial) dispensing.
- Extemporaneous fees for ointments and creams.
- A fee for "not dispensing".
- An extra fee for dispensing "Controlled Drugs" [141].

These strike a chord in Scotland since in all of these examples similar disputes between the pharmacists and the Government are currently on-going.

As there are very close similarities between the pre-new contract situation in Ireland and the current problems in Scotland, the remuneration models examined in this study take due cognisance of the new situation in Ireland.

Before discussing the new Irish pharmacy contract and relating this to the situation in Scotland it is necessary to explain briefly the Irish health care scheme as it pertains to pharmacy in order that the changes may be put in context.

In Ireland there are two categories of eligibility to receive State health and other benefits. Category 1 is where, in the opinion of the Chief Executive of the local Health Board, an individual is unable to afford general practitioner's services for himself and his dependants. Among the benefits such citizens and their dependants receive, free of charge, are prescribed medicines and medical and surgical appliances, including walking supports and wheelchairs. Income per week Government guidelines assist the Chief Executive in making his decision [142].

Category 2 eligibility relates to those who are not entitled to the Category 1 medical card. Category 2 patients are eligible for some free services (e.g. all in-patient hospital services in public wards). For a number of other services, the patient and his dependants have to make a contribution towards the cost of the services provided. In the case of pharmaceutical services the patient receives a refund from the Health Board of incurred expenditure in excess of I£90 on drugs and medicines prescribed for him and his dependants by a medical practitioner for use in the quarters commencing January, April, July and October [142].

In addition, citizens can benefit from the Drug Cost Subsidisation Scheme, if they or their dependants suffer from a long term condition and their expenditure on prescribed medicines exceeds I£32 each calendar month (see below). Patients registered on this scheme do not have to pay the pharmacist more than I£32 per month. The pharmacist recoups the balance from the State. There is one other relevant benefit available. This is where the patient and his dependants require drugs and medicines for the treatment of certain specified illnesses. This is termed the Long Term Illness Scheme (see below) [142].

There is one further scheme where patients are prescribed what are termed "High-Tech" medicines [141].

There are thus several payment systems for pharmacists under these various schemes namely:-

1. Normal category 1 patients and their dependants.
2. Normal category 2 patients and their dependants.
3. Category 2 patients and their dependants who incur expenditure in excess of I£90 per specified quarter.
4. Category 2 patients and their dependants who suffer from a long-term condition where medicines cost more than I£32 per month.
5. Category 2 patients (Drug Cost Subsidisation Scheme, etc.),who suffer from other specified illnesses. This is termed the Long Term Illness Scheme, and
6. Patients either Category 1 or 2 who receive specified "High Tech" medicines.

REMUNERATION OF COMMUNITY PHARMACY IN IRELAND

The pharmacies' remunerations for each is considered individually [141].

1. Category 1, Normal Patients.
   The various arrangements under this scheme are fully detailed in Appendix 8. Note there is no mark up allowed, except for meeting the stock orders of general practitioners. The current fees are detailed in Appendix 9.
2. The fees are as for system (1) above.
3. The fees are as for system (1) above.
4. The fees are different for this scheme. The payment comprises the ingredient cost, plus a 50% mark up, plus a fee of I£1.49 at 1/9/96. (See Appendix 10). This is inclusive of a broken bulk and container allowance and is increased annually in line with Public Service Pay awards. Claims have to be made by the pharmacist for each individual patient treated. The payment for extemporaneously dispensed preparations are made in accordance with the Irish Pharmaceutical Union's extemporaneous dispensing price list as agreed between the Union and the Department of Health.
5. The fees paid for this scheme as for scheme (4) above.

6. With "High Tech" medicines, the patients register with a pharmacy of their choice The list of 'High Tech' medicines is drawn up on a regular basis by agreement between the Health Department, the Pharmaceutical Contractors' Committee and the Irish Pharmaceutical Health Care Association. The current list is in Appendix 11 and the criteria used in Appendix 12. The Health Board pay the supplier for the products, and not the pharmacist. The pharmacist receives a capitation fee currently of I£28.33 per patient per month. Fees allowable are as for Category 1 patients. Patients remain registered with the one pharmacy only for the duration of their treatment with one of the specified products.

The regulations covering the new contract define the professional services which are to be provided by the pharmacist. These are detailed in Appendix 13. As far as "High Tech" medicines are concerned, the professional input required is detailed in Appendix 14. There are similarities in these conditions to the ten items detailed in Chapter 5 page 59-60. Thus the introduction of clinical pharmacy procedures into the contract has been achieved. This is not yet the case in Scotland.

The criteria for planned distribution is set out in Appendix 15. As in Scotland, a committee (in Ireland it is called an "assessment panel") assesses the applications against criteria detailed in the Regulations. This panel makes recommendations to the Chief Executive Officer (CEO) of the Health Board who makes the decision. In the case of a refusal by the CEO, appeals to the Minister are permitted. It should also be noted that when a contractor is offered a "new opening" contract he is required to enter into a bond of I£5,000 in favour of the Health Board. This bond is redeemable by the Health Board in the event of the contractor not entering into contract within the prescibed period. In coming to a decision as to whether or not to grant a licence, the qualifications and experience of the supervising pharmacist is a factor taken into account by the assessment panel [141]. This is not the case in Scotland.

Another radical step which is relevant to this study is that there is a population criteria used in defining catchment areas (see Appendix 15). In urban and large towns an existing pharmacy is entitled to a catchment area with a population not less than 4,000 and a distance of at least 250 metres door to door from other pharmacies. In rural areas, the

catchment area must have at least a population of 2,500 and a distance between pharmacies of 5 Kilometres.

INDICATIONS FOR SCOTLAND REGARDING THE SITUATION IN IRELAND

Thus the new contract for community pharmacies in Ireland [141] has many factors incorporated which could form the basis for improved arrangements in Scotland. These are detailed as follows:-

1. The location of pharmacies is based on public health need and is related to the population served.
2. Cognitive professional services are detailed in Regulations and must be carried out. These contain components which fall within the currently accepted definitions of "clinical pharmacy" and "pharmaceutical care".
3. There is no mark up in the main fees, although there remains an element of this in stock-orders (i.e. supplies to general practitioners) and in payment for some patients who do not receive totally free pharmaceutical services.
4. There are no allowances or retainers paid (except see 5).
5. A capitation fee and rudimentary registration of some patients are in place with the pharmacy of their choice for one particular service.
6. No discounts on products are offered or accepted.
7. There are fees available for not dispensing a product when, in the professional judgement of the pharmacist, such dispensing would be inappropriate, subject to satisfactory evidence being supplied to support a claim for such a fee.
8. Successful applicants for a "new opening" contract have to lodge a bond of I£5,000 which is forfeited if the contract is not taken up within the prescribed time limit.
9. There is provision for the appointment of community pharmacists to work in GP units.
10. The development of IT and telematic linkage between pharmacies and Health Boards have been agreed. When these become available the Regulations will require them to be used by pharmacists for the communication of listed information, including the arrangements for the paying of fees and allowances.

11. A significant budget has been allocated by the Government for the clinical pharmacy education and the training of community pharmacists.

DENMARK

HEALTH CARE SYSTEM AND COMMUNITY PHARMACY

Community pharmacy in Denmark is provided by private businesses, owned by pharmacists. The location of every pharmacy is determined by a Government agency and the decision, as to which pharmacist is given the ownership of a vacant or new pharmacy, is also determined by that Government Agency. There are representatives of the profession on the relevant committees of the agency. The profession is paid by a mark up system, the quantity of which is also determined by a Government agency. This mark up, and thus the selling price, of medicines applies to all class of products (GSL, P and POM) and to all sellers including hospital pharmacies selling to hospitals. Technically Denmark does not have medicines classified as GSL.

The community pharmacies have a total monopoly of sales, including veterinary sales, although as will be explained further, outlets such as branch pharmacies, pharmacy shops, other retailers (such as supermarkets) and delivery facilities exist. These outlets have to obtain the relevant products from the mother pharmacy. They are policed and monitored by the mother pharmacy. Community pharmacies and their subsidiary outlets provide a service to the Danish health service with the supply of POMs, but are not fully integrated into the current hierarchical health service bureaucracy (see below).

There is State registration of pharmacists and pharmacies. The Danish Pharmaceutical Association represents the interests of pharmacists and pharmacies, but has no direct role in registration. This organisation also incorporates the Danish College of Pharmacy Practice [143].

The (Consolidated) Pharmacy Act of 1984 [144] - the most recent - fully regulates all the aforementioned activities, including hospital pharmacies. The Act also regulates the layout, equipping and operating of pharmacies, how the accounts should be prepared and presented and the amounts which are included in the turnover. These accounts are used by

the Government agency to calculate the mark up and subsidies, which are to be paid. The Act also regulates an equalisation of the earnings of proprietor pharmacists. It further regulates the opening hours and stocks to be carried by pharmacies.

The organisation of the Danish health services works on the principle which has been the recently stated objective of the Government in Scotland. The principle is that the administrative structure should allow as much administration and management to be carried out as near to the patient as possible. In Denmark, the family doctor is usually the first point of contact, except in an emergency when the patient may go directly to a hospital [145].

There are three levels of administration and management, namely the State, the regions ("counties") and the local authorities ("municipalities"). These are either central Government (the State) or local Government (the regions and local authorities). The tasks and division of responsibilities amongst the three levels is based on two main principles, namely

(1) tasks and services which directly involve citizens must be placed as closely as possible to the individual person within the system i.e. as much as possible at the local (municipal) level. Only those services which require such a large population that they could not be economically conducted at the local level are placed at the regional level or, in very exceptional cases, State level:

(2) responsibility for the provision of the service must also include economic responsibility. Thus the State, the regions and the local authorities each levy independent taxes for financing the services which are their respective responsibilities. The State levels taxes via a direct and progressive tax system whereby those on a high income pay a relatively greater percentage in tax. There are also various consumer taxes (e.g. VAT). The regional and local authorities levy direct taxes which are proportionally calculated and taxes on property.

At State level the Ministry of Health, assisted and supported by the Danish National Board of Health (under the leadership of the Director General of Health), carries out the tasks associated with the high level planning and supervision of the health care system. The duties and responsibilities of the Danish National Board of Health is not dissimilar to the NHS Management Executive in this country (see Chapters 3 and 6). The highest number of tasks and services are assigned to the regional and local bodies, but certain direct

functions fall to the State itself. For example the management of the two largest teaching hospitals and the provision of the pharmacy service, the latter of which is provided by private pharmacies under State control. The State, by means of the Danish National Board of Health, licenses and categorises all medicines [145].

The regional authorities have the responsibility to ensure that the general population has access to comprehensive free medical care, not only in the hospitals but also from general practitioners and practising specialists outside the hospital system. The regions also have the responsibility to ensure the availability of economic support so that population can secure a relatively inexpensive treatment from, for example, physiotherapists, dentists and chiropractors.

The population of Denmark is virtually the same as that of Scotland at circa 5M. The regional authorities serve a population of between 60,000 and 610,000 (the latter is the municipal county of Copenhagen) and the local authorities a population of between 3,000 and 200,000. The regional and local authorities are directly elected and elect their own mayor and chairman. Each has relevant functional committees including a health committee. Nursing homes and residential homes for the elderly are run by the local authorities.

The earnings or remuneration of pharmacies does not, in theory, come directly from the State. The remuneration comes directly from those who purchase the medicines, including prescription only medicines. However, the State, by way of the Minister of Health, advised by the Board of Health publishes a list of medicines recognised for a subsidy. Only POM's are eligible for a subsidy. This subsidy is 75% or 50% of the retail sale price depending on the essential nature of the medicine. For generic medicines the subsidy is not applied to the actual retail sale price but to the average retail sale price of the two lowest priced generic medicines in the therapeutic group. The patient pays the pharmacist the agreed price and the patient submits a bill to the regional authority for the difference. It is notable that the subsidy is provided by the region and not the State, even though it is the State which decides the level of subsidy and the list of medicines which attracts a subsidy. In addition to the regional subsidy of 75% or 50% the local authorities, from their own resources, can provide an additional subsidy up to 100% for those in need including the elderly. This arrangement entails a sharp deviation from the normal main rule in the Danish system (both

for health care and other services such as education) where the sector responsible for a given service must also have full economic responsibility [145].

In other ways pharmacy also has a unique divergent position from the normal within the Danish system. This arrangement is discussed below.

Pharmacy is a privately run business under considerable State control (see above). The State authorises when and where pharmacies are required and controls who the owner is of new pharmacies and to whom the ownership is transferred on death or retirement. Population served is the main criteria in arriving at the approval by the State of the number and location of pharmacies. When an authorised (licensed) pharmacy becomes vacant, pharmacists apply for the ownership and are judged as to their suitability on their past records including education, professional attainments and previous senior posts held. Thus, former hospital Chief Pharmacists, Professors of Pharmacy, prominent employed community pharmacists and owners of small pharmacies can compete for the larger, more prestigious pharmacies. Those granted the "Kings Privilege" (King Christian V signed the first Pharmacy Act in 1672) have to pay the former owner the actual cost price of the stock and equipment and the market value of the property (which more often than not contains a large, integrated house for the owner). No goodwill is paid, emphasising that the licence does not belong to the proprietor pharmacist but to the Government. [143].

Only a fully qualified pharmacist (six year undergraduate course) can own a pharmacy. There is no provision for partnerships or corporate ownership.

Pharmacy business may only be carried out by licensed pharmacies (termed "mother pharmacies") and affiliated branch pharmacies, pharmacy shops, retailers shops and delivery facilities. Only a person with a pharmacy license, or who is employed as head of a hospital pharmacy, may use the title of "proprietor pharmacist". Thus the term "proprietor pharmacist" is a legal title and is restricted to the holders of a pharmacy licence and to a small number of Chief Pharmacists of specific hospitals.

Before 1970 all medicines were manufactured in pharmacies. Now pharmacies are not permitted to manufacture medicines unless they have the approval of the National Board of Health.

There are currently 297 licensed pharmacies covering a population of 4.6M (cf. Scotland with circa 1100 pharmacies for a similar population). That is one pharmacy per 15,000 citizens compared with one to 4,500 in Scotland.

These licensed pharmacies are, as explained, termed "mother pharmacies" since all other outlets are by law affiliated to them.

The other outlets comprise of (in order of status and their ability to provide a comprehensive service) -

1). Pharmacy branches,

2). Pharmacy shops,

3). Retailer's shops,

4). Delivery facilities which will be considered later (Table 3).

1). Pharmacy Branches

These work in a similar manner and provide the same services as the licensed mother pharmacy, except that they must be affiliated to a mother pharmacy, and so do not have a proprietor pharmacist. The pharmacist who manage a branch is an employee of the relevant proprietor. The number of branches is fairly constant, 41 in 1992 and 43 in 1995.

2). Pharmacy Shops.

Pharmacy shops have a staff of one or two pharmacy technicians who have undergone a three year full time University education. These pharmacy shops can sell non-POM medicines. Patients can hand in a prescription to these shops By law they have to be transported to the mother pharmacy for dispensing. It is dispensed in that pharmacy and sent back to the pharmacy shop, where the dispensed medicine is issued to the patient. There is a guaranteed same-day service. The name and address of the responsible proprietor pharmacist is made known to the patient. In 1995 there were 145 pharmacy shops (cf. 130 in 1992) (see Table 5). There has been a gradual increase in the number of pharmacy shops in the last decade compensating for a fall in the numbers of retailer's shops (see (3) below).

3). Retailer's Shops.

The law permits the establishment of retailer's shops selling medicines. The law requires that a legal agreement between a normal retailer (including supermarkets) and the mother pharmacies is put in place. The pharmacy delivers a limited selection of non-prescription medicines to the retailers shop. These can be sold to customers. The pharmacy supervises the distribution by various means, including regular and random inspections. Prescriptions can be handed in to these shops. They are dispensed in the mother pharmacy. The dispensed medicines are returned to the retailer's shop in sealed packages for collection by the patient. The responsible proprietor pharmacist and mother pharmacy is made known to the patient. The number of such outlets is decreasing in favour of pharmacy shops since both the profession and the public apparently prefer to deal with staff educated for the sale and supply of medicines. Thus there were 829 such establishments in 1995 compared with 856 in 1992 (see Tables 3 and 4).

(4). Delivery Facilities.

These outlets are similar to the collection and delivery arrangements in Scotland. These facilities, where a normal shop collects prescriptions and has them sent to a pharmacy for dispensing, are available in rural, low population areas. Prescriptions are handed in to the delivery point and dispensed, pre-packed by the pharmacy. The sealed packages of the dispensed medicines are returned to patients by the delivery facility. The patients are made aware of the name of the responsible proprietor pharmacist. No medicines at all are sold from these establishments. It will be recalled that there are no GSL medicines in Denmark. In 1995 there were 445 such establishments/facilities compared with 455 in 1992. (see Table 4).

There are no dispensing doctors in Denmark.

TABLE 3

OUTLETS WHICH SELL AND SUPPLY MEDICINES IN DENMARK	
Pharmacies	294
Pharmacy sub-branches	43
Pharmacy shops	145
Retailers shops	829
Delivery facilities	445

(from Danish Pharmaceutical Association 1996)

TABLE 4

DISTRIBUTION OF PHARMACY OUTLETS (1992 - 1995)				
	1992	1993	1994	1995
Pharmacies	299	297	295	294
Pharmacy sub-branches	41	41	42	43
Pharmacy shops	130	135	144	145
Retailer's shops	856	859	848	829
Delivery facilities	455	501	461	445

(from Danish Pharmaceutical Association 1996)

The total work force of all Danish pharmacies was almost 5,500 in 1995, of which pharmacists comprised 14% and pharmacy technicians 56% (see Tables 5 and 6). The Danish Pharmaceutical Association maintain, that the progressive reduction in the value of the mark up from 1992 to 1995 has resulted in the fall in the number of staff employed (see Table 7) [143].

TABLE 5

STAFF EMPLOYED IN DANISH PHARMACY OUTLETS IN 1995		
	Number	Converted into full time
Employed pharmacists	749	640
Pharmacy technicians	3,073	2,464
Trainees *	263	263
Others	1,393	597
Total	5,478	3,963
*Pharmacy technician trainees		

(from Danish Pharmaceutical Association 1996)

TABLE 6

STAFF EMPLOYED IN AN AVERAGE DANISH PHARMACY		
	Number	Converted into full time
Employed pharmacists	2.7	2.2
Pharmacy technicians	11	8.4
Trainees *	0.9	0.9
Others	4.7	2
Total	19	14
*Pharmacy technician trainees		

(from Danish Pharmaceutical Association 1996)

TABLE 7

COMPARISON OF THE STAFF BETWEEN 1992-1995 CONVERTED INTO FULL TIME WORK IN DANISH PHARMACIES				
	1992	1993	1994	1995
Employed pharmacists	678	667	653	640
Pharmacy technicians	2,568	2,553	2,471	2,464
Trainees *	208	205	224	263
Others	704	683	648	597
Total	4,158	4,108	3,996	3,963
*Pharmacy technician trainees				

(from Danish Pharmaceutical Association 1996)

The Minister of Health determines who shall hold a pharmacy licence and where the pharmacists are to be located. The applications are processed by the National Board of Health who also announce the availability of licence and stipulate a time limit for applications (Appendix 16). The Ministry, on the advice of the National Board, can terminate licences for a variety of reasons including the absence of the proprietor for whatever reason for two years. The taking over of a pharmacy by the appointed/approved applicant is also laid down in national law which stipulates the responsibilities of the proprietor and the services which must be provided. In the latter case the law stipulates that only these services and no others can be provided by the pharmacy (Appendix 17).

The law also regulates how and where branches may be located and the opening, closing and moving of the location of pharmacy shops. The proprietor pharmacist can, by law, establish and close down retailer's shops and delivery facilities within the pharmacy's natural supply area although he has to inform the National Board about such actions(Appendix16). He can also be persuaded to make the arrangements to open new shops or relocate existing ones if the Board of Health perceives that to do so will meet the needs of citizens.

Thus, to ensure adequate distribution of medicinal products the National Board retains the

right to order the establishment, moving and closing down of retailer's shops and delivery facilities. The layout of and the equipment used by a pharmacy is regulated by the National Board and pharmacies are inspected to ensure compliance with the regulations. Hospital pharmacies are regulated in the same way and are owned by licensed proprietor pharmacists. (Appendix 16). This pharmacist is the hospital's Chief Pharmacist.

In all of the licensing activities mentioned above the National Board must take advice from three consultants. (Appendix 18). These consultants are appointed for four years by the Ministry following the recommendation of the Danish Pharmacists' Association, the Association of Danish Pharmacy Technicians and the Danish Pharmaceutical Association. In the case of hospital pharmacies, advice on the location of a pharmacy department and the appointment of the chief pharmacist is taken from two of the aforementioned consultants together with one consultant who is employed at a hospital pharmacy and has been appointed for this consultancy task by the Ministry for a period of four years following the recommendation of the owners of hospital pharmacies.

REMUNERATION OF COMMUNITY PHARMACY IN DENMARK

The pharmacies in Denmark are, in theory, reimbursed directly by the patient. Thus the negotiations as to the level of remuneration is based on the fixing by the Government of the retail price at which all medicines are sold. Pharmacies have a monopoly of sales of all medicines, because there are no GSL medicines. In addition, pharmacy law specifically prohibits manufacturers and wholesalers from offering pharmacies discounts except at the very margin. In effect discounts are not available on 99% of products.

The method of fixing the retail price of medicines is laid down in part 8 of the (Consolidated) Pharmacy Act, 1984 [144]. It is the responsibility of the Ministry of Health, after consultation with the National Board of Health, to fix the prices. The quantum of the total amount which constitutes the gross profit of the pharmacies from the sale of medicinal products and related products is determined by agreement between the Minister and the recognised organisation of proprietor pharmacists (currently the Danish Pharmaceutical Association). The agreement lasts for a period of two years and stipulates the conditions for re-negotiation during the agreement period. If no new agreement has been entered into at the expiry of the agreement period, the Minister can extend the existing agreement by a

maximum of one year. Where no agreement can be reached, the Minister introduces a special Bill to Parliament. This happened in 1992 and 1993. Consequently the gross profit of pharmacies for these two years was decided by Act of Parliament.

Pharmacists must by law keep accounts in a specified manner and submit them to the National Board of Health within a stipulated time limit (Part 9 Consolidated Pharmacy Act, 1984) [144].

Also the Minister, following negotiations with the Danish Pharmacist's Association, lays down Regulations on the equalisation of earnings of proprietor pharmacists. Those with a gross income over an agreed amount pay a fee, expressed as a percentage of gross turnover, to the Ministry. The Ministry distributed this sum to those whose gross earnings are below a specified level (Part 10 Consolidated Pharmacy Act, 1984) [144].

Where the Minister, for whatever reason, closes down a pharmacy, he is obliged by law to pay compensation to the proprietor pharmacist. This also applies where the Minister orders a pharmacy or a branch pharmacy to move and the proprietor suffers loss on the sale of the vacated premises. The level of compensation is set by the National Board of Health. The State provides loans to proprietor pharmacists who take over an old pharmacy or establish a new pharmacy, branch pharmacy, pharmacy shop or move the location of an old pharmacy, branch pharmacy or pharmacy shop. A loan is guaranteed where it is considered necessary to keep a pharmacy (or its dependencies) open. The State, of course, has a lien of the pharmacists furniture, etc. as security for the loan.

The Minister of Health arranges for the State to provide pensions for the proprietor pharmacists.

On average each pharmacy dispenses 137,548 prescriptions per annum (Table 8). The average price of an item on a prescription for primary care patients was 131DKK (£13) excluding VAT in 1995.

TABLE 8

NUMBER OF PRESCRIPTIONS DISPENSED BY DANISH PHARMACIES	
Number of prescriptions, the whole country	40,4 mill. prescriptions
Average per pharmacy	137,548 prescriptions
Items per prescription form, approx.	1.6 items per prescription form

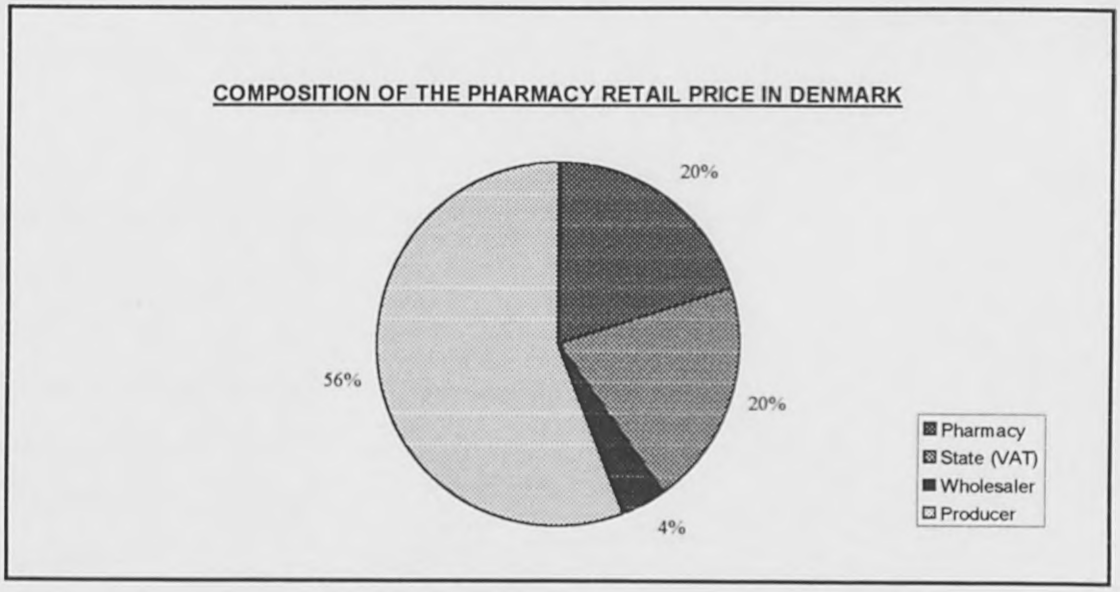
(from Danish Pharmaceutical Association 1996)

The pharmacy retail price in 1996 was made up as follows:-

Pharmacy	20.00%
State (VAT)	20.00%
Wholesaler	4.00%
Producer	56.00%

(see Figure 19)

FIGURE 19



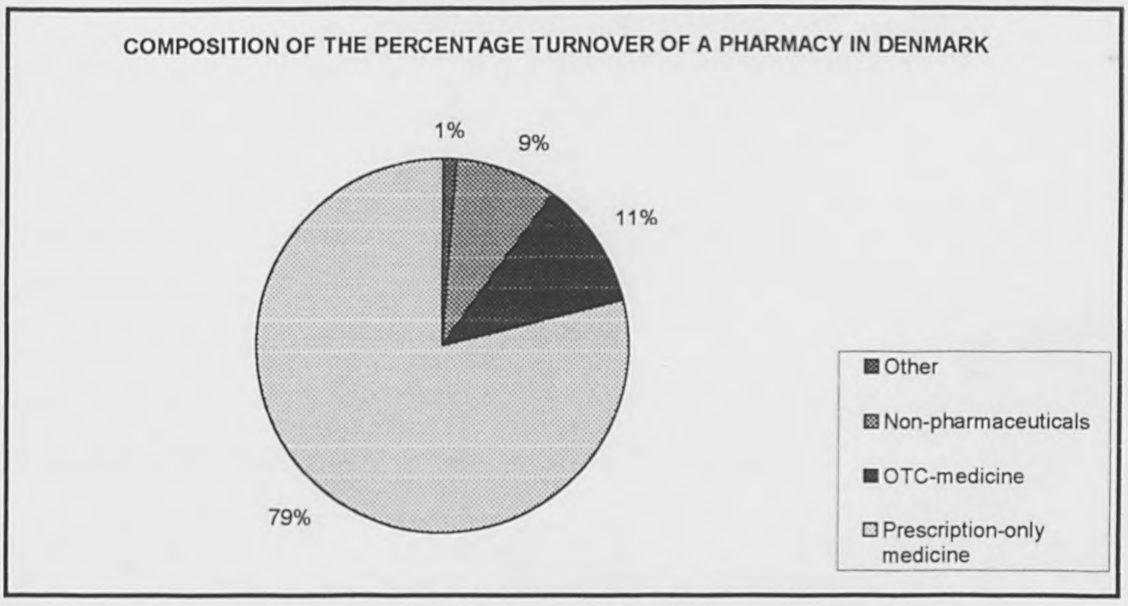
(from Danish Pharmaceutical Association 1996)

The turnover of the average pharmacy has the following sources.

"Other"	0.9%
Non-pharmaceuticals	8.8%
OTC medicines	10.7%
POM medicines	79.6%

(see Figure 20)

FIGURE 20



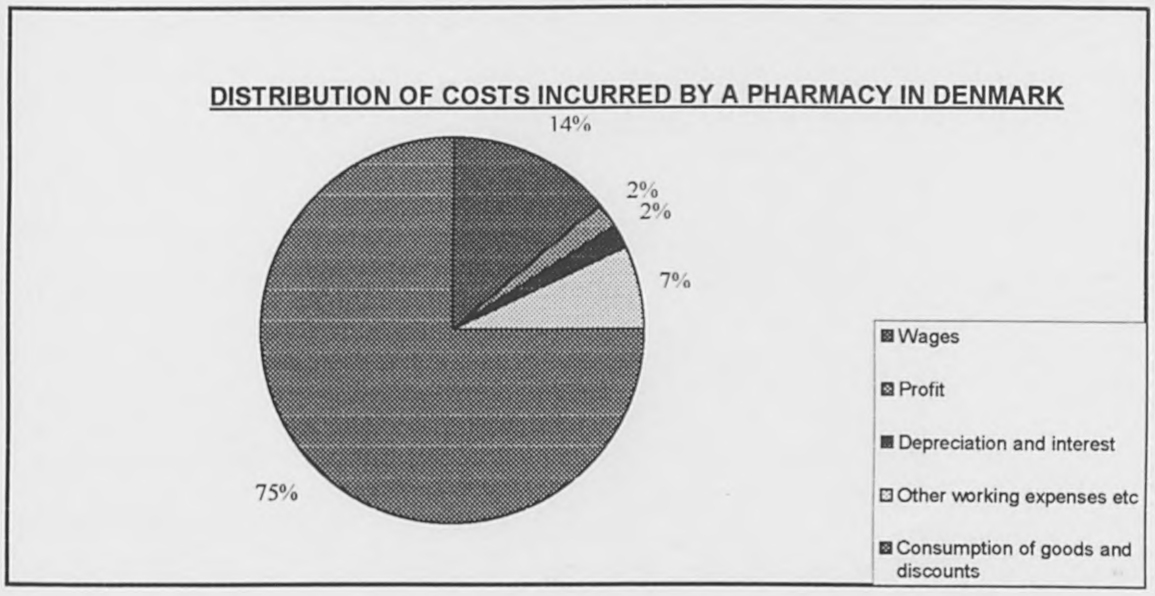
(from Danish Pharmaceutical Association 1996)

The distribution of the costs of an average pharmacy is as follows:-

Wages	14.44%
Profit	2.30%
Depreciation and interest	1.61%
Other working expenses	6.77%
Consumption of goods and discounts	74.88%

(see Figure 21)

FIGURE 21

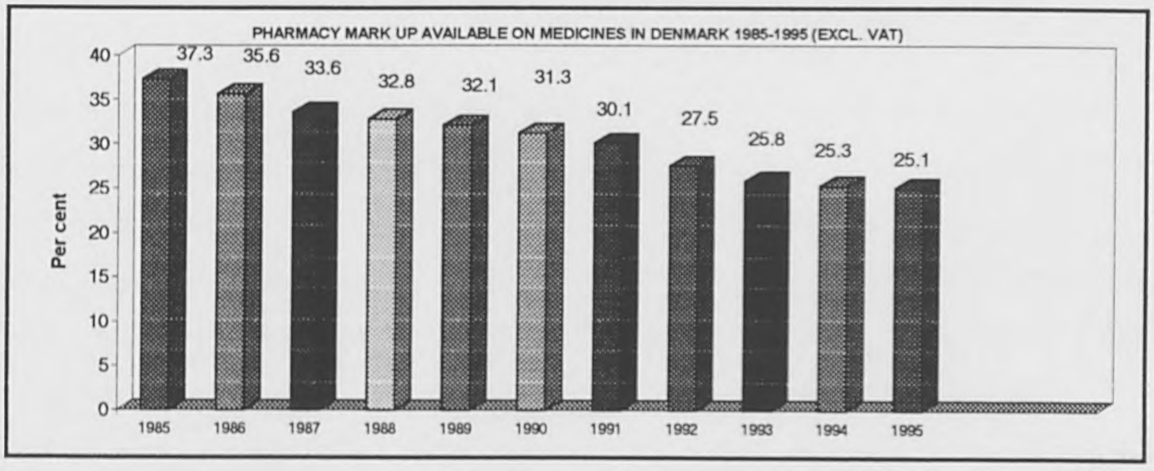


(from Danish Pharmaceutical Association 1996)

In January 1995 the level at which a fee subsidy was payable was set at 4% over the specified amount.

There has been a gradual reduction in the agreed margin. In 1985 the gross margin was 37.3% and by 1995 that had been reduced to 25.1% (Figure 22).

FIGURE 22



(from Danish Pharmaceutical Association 1996)

The turnover of the various pharmacy outlets is given in Table 9. It is worthy of note that the maximum number of retailer's shops is 16 per pharmacy, and the maximum number of delivery outlets is 12 per pharmacy. Some pharmacies are linked to neither of these.

TABLE 9

TURNOVER OF DANISH PHARMACIES

	Number	Average Turnover in DKK	Max. Turnover in DKK	Min. Turnover in DKK
Pharmacies in total	294	23,415,119	69,971,062	6,087,759
Pharmacies excl. sub-units*	294	18,049,550	55,353,474	1,723,064
Pharmacy branches	43	10,685,123	21,659,735	3,212,725
Pharmacy shops	145	3,970,005	7,901,428	1,239,362
			Max.Number	Min. Number
Retailer's shops	829	616,222	16	0
Delivery facilities	445	68,112	12	0

* Results appear by reducing possible turnover from Pharmacy branches, Pharmacy shops, Retailer's shops, Delivery facilities.

(from Danish Pharmaceutical Association 1996)

It should also be noted that by law the proprietor pharmacist is paid a fee in addition to the mark up for those medicines which are dispensed on a prescription raised by a medical practitioner. By law this fee is not greater than the cost of providing the service.

Only POMs are subject to subsidies from the regional and local authorities. In the early 1990s about one hundred medicines were removed from the list of POMs making them no longer eligible for a subsidy from the health service. The pharmacist was also professionally required to give more pharmaceutical care to those patients who requested these products, since a medical practitioner was no longer involved in the process. This, together with the progressive reduction in the mark up, has occasioned the Danish pharmacists to become interested in a remuneration system which would depend less on a mark up and more on a fee for the care services provided including the care provided when OTC medicines are prescribed by pharmacists [143].

INDICATIONS FOR SCOTLAND REGARDING THE SITUATION IN DENMARK

The Danish system uses population figures to express the need for a pharmacy.

Although the licensed pharmacy has a total monopoly of the sale and supply of medicines, the responsibility can be devolved within limited parameters to other outlets which are under the control of a pharmacy. These latter outlets are thus controlled by the proprietor of the mother pharmacy and the proprietor pharmacist in law carries the full responsibility for the devolved activities.

The main remuneration comes from the patient who may receive a subsidy from the regional and/or local authority (see above). The Government sets the retail price of all medicines. Virtually no discounts are available, so that there is, in effect, retail price maintenance. The retail price is negotiated by the interested parties. Failure to reach agreement results in the price being fixed by Act of Parliament.

Hospital pharmacies are controlled in virtually the same way as community pharmacies.

The State provides loans and pensions to proprietor pharmacists. There is no goodwill element in the sale to the pharmacy.

Only those pharmacists who have a proven track record are granted a licence as a proprietor pharmacist. The better the record the more prestigious the pharmacy they are licensed to own.

Only a pharmacist can own a pharmacy and he/she can only own one together with its associated branches, pharmacy shops, retailer's shops and delivery facilities. .

There is wide use of technicians who have undergone the equivalent of a three year University course of study and training.

Those pharmacies with a total income over a specified and negotiated amount subsidise those pharmacies with a total income below a negotiated, specified amount.

All of the conditions which currently exist in Denmark have at one time or another been the subject of discussion in Scotland. Some have found favour; others have been rejected out of hand. Those which have not found favour in general include the fact that in Denmark only a pharmacist can own a pharmacy and obtain a health service contract (though independent pharmacists favour this). Almost all pharmacy contractors do not favour the situation where the Government rather than the market determines the number and location of pharmacies and that it is unacceptable to have large pharmacies subsidising the smaller ones. It should be noted, however, that Scotland does in fact have a scheme to subsidise the smaller pharmacies. Scottish contractors believe that the subsidy should be resourced by the Government and not by the larger pharmacies as at present.

NORWAY

HEALTH CARE SYSTEM AND COMMUNITY PHARMACY

Norway has a similar population to Scotland (i.e. 3.8M) and has a pharmacy service organised in a similar way to that in Denmark. There is State control of numbers and location, and State setting of retail prices. There are also branch pharmacies in existence.

In Norway, all medicines are paid for by the State. In public hospitals, the medicines are paid for by the hospitals who, in turn, receive funding from either or both the Government and the Counties. Non-hospital patients must receive a "blue prescription" in order for the medicine to be paid by the Rikstryg-Deverbet (RTV) - the equivalent of the United Kingdom NHS. There is a list of 38 diseases or groups of diseases (termed "points" of a standard character where the medicine can be prescribed on a "blue prescription". For each of the 38 "points", there is a positive list of drugs that can be prescribed for the disease or diseases covered by that "point" [146].

On a "blue prescription" the patient is required to make a co-payment of 30%, this is limited to 300 NOK (£30) for a three month supply. Patients requiring several medicines, pay only one co-payment charge if all the medicines are on the same prescription form, even if the medicines are for different diagnoses. There is no co-payment required of children under 7 years of age. For those between 7 and 16, those over 67, and the

disabled, the co-payment required is 10%. This contribution has an upper limit of 75 NOK (£7.50) for a three month supply.

In addition to the limit of 300 NOK mentioned above, the patient has to pay an overall limit of 1190 NOK per calendar year for co-payments for medicines, consultations with medical practitioners and some transport expenses in connection with consultations. The patients can recover, or not pay, any costs above these limits.

Although the 38 "points" mentioned above do not cover all diseases, they do cover the vast majority. There is also in place an appeal system, which, if successful, allows patients to receive a medicine on the negative drug list and medicines for non-listed diseases [139]. Reimbursement is not automatic, however, and each case is considered individually on its own merits. The patient pays the pharmacist the full price and then submits receipts with a claim form to the RTV. Note that this is different from Denmark where the patients make the appropriate contribution to the pharmacist, the difference being claimed by the pharmacist.

In Norway, there are 334 privately-owned community pharmacies. These are run on a concessionary basis, and the concession is granted by the Government. In effect, there are 248 prime pharmacies (comparable with the Danish mother pharmacies), and 86 branch pharmacies. The Health Authorities decide the number of pharmacies and who should be allowed to buy a vacant pharmacy. Thus, a concession is granted by the Health Authority on behalf of the Government. The branch pharmacy is owned by the proprietor of the main pharmacy. The term "proprietor pharmacist" refers to the person who holds the concession and has the same legal restrictions and privileges as the equivalent position in Denmark.

In addition, there are 27 hospital pharmacies, two of which are owned by the State (i.e. the central Government). Most of the remainder are owned by the respective County administrations (i.e. local Government). These hospital pharmacies sell medicines to the hospital. Unlike this country, the hospital pharmacies actually sell to the hospitals on a commercial basis and charge the full Government agreed price. A few hospital pharmacies are mixed community and hospital pharmacies and sell also to the general public These are owned by proprietor pharmacists. All the others can only sell to the hospital and to patients using the hospital (i.e. staff and out-patients).

Community pharmacies, on average, service circa 12,000 of a population. Approximately 75% of the sales of private pharmacies are prescription medicines, 10% OTC medicines and 15% non medicinal products (e.g. vitamins, dressings, cosmetics, toothbrushes)(Table 10) [146].

TABLE 10

THE STRUCTURE OF THE COSTS OF NORWEGIAN COMMUNITY PHARMACIES		
Cost structure 1995	1,000 KR	%
Net Sales	6,257.412	100.00
Cost of goods sold	4,627.373	73.95
Personnel costs	1,019.044	16.29
Rent and housing	134.350	2.15
Other expenses	104.061	1.66
Depreciation	45.429	0.73
Pharmacy sales tax	83.956	1.34
Financial costs	3.898	0.06
Result (profit)	239.301	3.82

(from Norwegian Associate of Proprietor Pharmacies)

In Norway, both graduate and diploma holders (prescriptionists) are termed "pharmacists". The diploma awarded to prescriptionists is not recognised as that required for registration as a pharmacist by the European Union (EU). Only graduate pharmacists can own pharmacies and corporate or limited liability companies cannot own pharmacies. Pharmacists can only own one pharmacy and its associated branch(es).

The minimum basic monthly salary of graduate pharmacists in 1996 was 25,324 NOK and of prescriptionists 19,893 NOK. Additional allowances include:-

1) leader of a branch pharmacy 3,171 / 4,751 / 6,222 NOK per month, according to size:
2) first pharmacist (not owner) - an extra 12.5%;
3) information pharmacist - an extra 10%;
4) 'sole' pharmacist (in adddition to the owner) - an extra 7.5%;
5) supply and demand situation - higher salaries acceptable where there is a shortage of staff in any pharmacy.

TABLE 11

STAFFING STRUCTURE OF NORWEGIAN PHARMACIES IN 1995	
Average staff per pharmacy	1.75 graduate pharmacists (including owner)
	1.85 prescriptionist (diploma pharmacists)
	7.50 'shop assistants'

(from Norwegian Associate of Proprietor Pharmacists)

NB There is currently 10 NOK Norwegian crowns to £1 sterling.

REMUNERATION OF COMMUNITY PHARMACY IN NORWAY

The only remuneration received on all items, sold or supplied including prescription medicines, is the mark up on the medicines. Approximately 50% of the turnover of prescription medicines in these private pharmacies is paid by the National Insurance Administration (i.e. Rikstrygdeverbet - RTV).

The RTV prescriptions are blue in colour (colloquially known as "blue prescriptions"). The maximum mark up on prescription medicines, whether for "blue prescriptions" or private prescriptions, is decided by the Ministry of Social Affairs and Health under the National Insurance Act of 1966 and specifically based of the "*Regulations on the reimbursement of expenses for more important medicines*" The current Regulations date from 1984, although there have been minor amendments in the intervening years. These are not relevant to this exercise [146].

Since September 1996, the mark up has been 19% on the first 200 NOK, 12% on the next 200 NOK and 7% on the remainder based on the wholesale cost (ex-VAT). There has been in addition a mark up of 15 NOK per pack dispensed (not per item on a prescription). If a medicine is classified as a narcotic or a potentially habit-forming medicine (e.g. tranquillisers and painkillers), an additional mark up of currently 5% has been applied.

Thus, a pack of a non narcotic drugs, costing 500 NOK (ex VAT) from the wholesaler, receives a mark up of 19% of 200 + 12% of 200 + 7% of 100 + 15 NOK = 84 NOK. The price to the consumer or to the RTV would be 718.30 NOK, comprising 584 NOK plus 23% VAT.

Thus, on a product costing 500 NOK (£50) which is not a narcotic or habit-forming product, the pharmacy receives £8.40 "profit". This represents 16.8% gross profit.

For the pack of a product costing double this, 1000 NOK (£100), the calculation would be 19% of 200 + 12% of 200 + 7% of 600 + 15 NOK = 119 NOK or £11.90 sterling profit, giving a gross percentage profit of 11.9%.

It must be emphasised, when comparing this remuneration with that of Scotland, that this is the sole and only remuneration, whether from a private consumer or from the RTV. There are no additional fees, for example, for extemporaneously dispensed medicines. It should also be noted that 'private' pharmacies and hospital pharmacies charge the same price for packs of products sold directly to the public or to a hospital.

There is a marginal degree of price competition between pharmacies represented by the following facts;

- wholesalers offer inducements (i.e. discounts) to pharmacies; these are very small and really exist in theory only as there is negligible price competition between wholesalers;
- by the pharmacy selling a cheaper product such as a parallel import.

In theory, the maximum mark up is set by the RTV after negotiations between the Government Department and the Norwegian Association of Proprietor Pharmacies (NAPP), which currently represents 100% of the pharmacies. However, in recent times, the Government Department with overall control (the Ministry of Social Affairs and Health) has overruled the recommendations of the administrative body (the RTV) after its negotiations with the NAPP resulted in an agreement. This Ministry, in effect, determined the remuneration of the pharmacies [146].

There is no Pharmacy Benefit Scheme or Managed Care scheme in Norway. However, the manner in which the retail price is set by the State through the RTV is not dissimilar to that used by managed care organisations in the USA. The RTV does not negotiate the prices of products, but it applies a reference pricing system to the products on their positive lists (e.g. "white list", that is the products available from the State Health service). If the product costs more than the reference price, the patient must pay the difference in addition to the co-payment triggered by the reference price. Generic substitution is not yet allowed.

The total pharmacies turnover in 1996 was 5,600 million NOK = £560 million sterling. Thus, on average, each pharmacy turns over £1.6 million per annum.

Each pharmacy claims its payment from the local branch office of RTV, usually twice per month. Reimbursement is normally received within one week from the claim being submitted.

Average profit of a pharmacy is 3.82% net, pre-tax. (1996)

Sales to the RTV (i.e. NHS) average 48.2% of turnover. (1996)
Average net sales per pharmacy is 19M NOK (1996)
Average wholesale cost of item is 450 NOK (inclusive of VAT). N.B. 2 x 100 tablets is one item. This is where a pack is bought at maximum wholesale price. If bought at less than maximum price (i.e. at discount) the pharmacy keeps half of saving, giving a larger mark up [146].

INDICATIONS FOR SCOTLAND REGARDING SITUATION IN NORWAY

Norway relies totally on the mark up system of remuneration. Pharmacy has a virtual monopoly of the sale and supply of medicines and there is State control of the gross retail price of all medicines. As in Norway, the patient pays the retail price but receives a reimbursed subsidy from the Government and/or the country in which he resides. The amount of the reimbursement varies with the nature of the medicine supplied.

There is State control of the value of the mark up and there is a maximum mark up. The percentage value of the mark up is reduced as the basic wholesale price of the product increases.

The number and location of all pharmacies is regulated by the State and the State has the power to overrule negotiated settlements of the mark up and thus the gross income of pharmacies.

Only a graduate pharmacist can own a pharmacy and he/she can only own one.

Apart from the attractive elements in the Norwegian system, which are also to be found in Denmark, there is nothing extra in the Norwegian system which would likely be acceptable to Scotland.

USA

HEALTH CARE SYSTEM AND COMMUNITY PHARMACY

The USA has gone through the stages necessary to introduce clinical pharmacy services to the community pharmacy services, which are defined or understood as cognitive services. They have been represented as a total professional service, now frequently called "pharmaceutical care". Some of the elements of this total service have been explored in Chapter 4 . These services are classed as "non-distributive" (i.e. they do not directly involve the dispensing of medicines nor the sale or supply of medicines). Those pharmacists who continue to dispense are paid on a mark up basis with some added fees. Usually these extra fees are for extemporaneously dispensed products. Both elements of practice (i.e. provision of dispensing services and the provision of cognitive services) are competitive in the market place. With insurance schemes (both private and public), the level of financial rewards for both types of service are negotiated and fixed [147]. Pharmacists who do not wish to accept the fees offered by public and private insurance organisations decline to be contracted to the relevant organisations involved.

Because of the diversity and size of the USA market, and the absence of a comprehensive, all embracing national health care system, community pharmacists have a wide choice of systems and markets within which to practice. This contrasts with Scotland, where over 95% of community pharmacists have little choice but be contracted to the NHS.

There is a large market for private dispensing and for the provision of cognitive services. Some of the market is served by private health care insurance schemes, for those who can afford private insurance [8]. For those who cannot, there are State and National medical insurance systems, such as Medicare, with which the pharmacies can contract to provide services. Medicare covers only about 20% of the population. Increasingly there are systems which provide Managed Care [7]. Managed Care is an American term for organisations which purchase care for those citizens who choose to join the organisation. There are now many Managed Care organisations [148] which compete for the custom of citizens. Community pharmacies can, if they wish, agree to provide services to these organisations on terms largely dictated by the organisation [149].

There is no discernible single structure for the provision of what in Scotland is known as community pharmacy services in the USA, other than a diverse variety of large chain retail pharmacies (sometimes called drug stores) and small independent practitioners. The latter represent a minority.

REMUNERATION OF COMMUNITY PHARMACY IN USA

The dispensing of medicines under all of these schemes is paid for by the traditional trade orientated systems. That is remuneration is by a mark up on the product. Sometimes a single, fixed dispensing fee is added to the price of the product. The value of this is negotiated directly with the patient or his third party payer. There is no uniform, national or State rate for either. With the gradual acceptance of the need for the provision of cognitive pharmaceutical services in the community, as well as in the hospital services, a range of diverse arrangements to provide for and pay for these services is emerging [148].

This is to be expected, since clinical pharmacy practice and pharmaceutical care was born, nurtured and developed in the institutional setting of large, mainly teaching hospitals. It spread to all hospitals before moving on to smaller, less formal institutions and only recently has it spread to the community. In the first instance, therefore, it would appear that the cognitive services are being paid for only where these services are provided for patients in groups located in nursing homes, residential homes and similar institutions.

The provision of the pharmaceutical care services in these homes is not confined to the conventional retail pharmacy businesses. Indeed, new types of community pharmacy businesses are being set up to provide these services. Some of these new type businesses do not provide a dispensing or supply service. One of the reasons for this is that Managed Care organisations arrange to purchase and supply the medicines for their members and do not avail themselves of the supply services of retail pharmacies (i.e. the supply by mail order). Another reason is that State and National law requires that nursing homes and residential homes receive specified cognitive services, including specified and specialised cognitive pharmaceutical services.

These new type community pharmacy businesses call themselves Consultant Pharmacies, are office based and are staffed by consultant pharmacists and other specialised staff.

There is very little that is directly relevant to Scotland and therefore nothing to be learned from USA, as to the trade side of retail pharmacy and how dispensing is rewarded. The area which requires to be examined, in some detail, is the nature of these emerging new type consultant pharmacy businesses and how they are structured and rewarded. An attempt is made to do this in the following pages.

There are several agreed schemes for the payment of cognitive services already in operation in the USA[148]. These are separate from payment for dispensing and include PACIFICARE (for formulary management), VALUE Rx and American Airlines (ORDUR), BRAVELL CLAIMS MANAGEMENT (POS - DUR), and PAID PRESCRIPTIONS (CO - ORDINATED CARE NETWORK). These are considered in turn.

PACIFICARE. This organisation pays pharmacists for formulary management. The system works with electronic point of sale (EPOS) messages on what the organisation refers to as "preferred products". These products are those which the system allows it's contracted medical practitioners to prescribe and it's members to receive. The pharmacists are paid a fee of between $4 to $10 for interventions which result in a therapeutic change. However, the change is rarely a true therapeutic change, but it is,in fact, a change from a non allowed to an allowed product.

VALUE Rx. In this system the pharmacist is paid a $2 clinical services fee for intervening in response to several classes of problems for which the Value Rx's ODUR system routinely screens. This is a Drug Use Review (DUR) method. This fee is not paid when the prescriptions originate in the pharmacy where the intervention occurs. The reason for this is that a State law of 1990, implemented in 1993, which amongst other things requires a pharmacist to perform POS-DUR (i.e. point of sale, drug use review) on every prescription dispensed. Therefore it is assumed that this has happened with those prescriptions the pharmacy dispenses itself and so no extra payment is made.

BREVELL CLAIMS MANAGEMENT. This system pays the pharmacist a fee of $7 for intervening in a drug interaction or allergy if the prescription is changed or rescinded. Two things in this scheme are worthy of note. The first is that the pharmacist must document the intervention and the document must be signed by the patient. Thus the pharmacist cannot resolve an issue with the prescriber without the knowledge of the patient. Secondly the reward is for a procedural outcome only. The pharmacist is paid only where things are changed and not for optimising care. This, therefore, is not truly a payment for the provision of pharmaceutical care, as defined.

PAID PRESCRIPTIONS. This is a large prescription supply company which dispenses the prescriptions centrally and sends the medicines to the patient by mail. It has created a "Co-ordinated Care Network" programme to pay pharmacists for cognitive services. Phase 2 pays the pharmacists for a variety of services including patient monitoring and compliance counselling. PAID PRESCRIPTIONS is owned by a mail order company which in turn is owned by a pharmaceutical manufacturer. It is suspected by the pharmacists in the USA that since mail order is not popular with the profession, this system is an attempt to involve pharmacists in the cognitive aspects of the service, as a compensation for the loss of income from dispensing.

Similar schemes classed as "formulary management" have been introduced by Managed Care organisations and companies. The criticism of them all is that the pharmacist is being paid as an agent of another party (i.e. the Managed Care, the Mail Order, or the insurance organisation). These organisations have an agenda to either maximise the use of their contracted products, and/or to minimise the use of other products. In these cases the

service is not regarded by the profession as a true "cognitive service", or an adequate provision of pharmaceutical care.

In negotiating fees or mark up with third parties in the USA and in Scotland, pharmacists in the past have used the well established "UCR system". This means Usual, Customary and Reasonable. It is a way of expressing the market approach. That is "if the market is willing to pay a certain amount then third parties should pay the same". Third parties in the USA are now taking the view that what may be usual and customary in the market, is not reasonable when the provider has no, or minimal, financial risk [150].

In the place of the UCR system in the USA, a series of research based approaches for calculating the value of services are being persued. The most widely researched and applied is the Rescource Based Value Scale approach which is used to set physician's fees in the Government sponsored Medicare programme [150]. This system is discussed and adapted in one of the theoretical models which is detailed in Chapter 9. It is not a radical system, since such a system has been widely used in Europe for over 50 years, in one form or another, to pay medical and pharmaceutical practitioners. It is more commonly called a tariff system.

Managed Care systems in the USA have tended to marginalise the dispensing/supply role of pharmacists. A need has therefore arisen to address the opportunities which these organisations present for the payment of cognitive services.

One of the avenues which has been developed in the USA is the role of "Consultant Pharmacists" (see above) who have come into existence specifically to provide such services, mostly without dispensing or supply services being included.

In the USA there have been institutional (mainly hospitals) consultant pharmacists since 1968/69, but the numbers have grown considerably since the middle 1980s. A group of pharmacists, working in what is called in Scotland "community pharmacy" (servicing ambulatory patients as well as those in nursing homes and residential care), are now providing pharmaceutical care services which totally or partly exclude the dispensing of medicines. These pharmacists only get paid for their intellectual input and the so called

cognitive services they provide. They are not salaried, and their method and level of payment and the services they provide are of interest to this study.

This is particularly of interest since the recent Government White Papers [88, 89] and the new Primary Care Act [40] could precipitate the growth of such services in Scotland. Indeed the discussion paper [89] suggested that there should be a target of 10% of GP's surgeries receiving these types of services by 1999. Another factor is that these USA consultant pharmacists have encountered the problems of local negotiations which are also to be progressively introduced under the provisions in the NHS pharmaceutical primary care service in Scotland. This is typified by the question, how does one deal with the competitor down the road who is "giving away" consulting services in return for dispensing for patients in, for example, a residential home [151]?

An initial survey was carried out using a random sample of members of the American Society of Consultant Pharmacists in 1990. This was to obtain a more complete picture of what was happening in the market place. The results of this study have been used extensively in the USA to begin to formalise a structure for the provision of these pharmaceutical care services by the new, self classified, consultant pharmacists. In 1996, these new type businesses were accepted by the American Pharmaceutical Association, as within the mainstream of pharmacy practice [152]. This conclusion also drew on a study into the effects of Managed Care on pharmacy practice [153] and long deliberations thereafter.

The following questions were asked by those carrying out this study:--

1. What method do you use to charge for your consultant services?
2. How much do you charge ?
3. What services are provided, and are they included under the fee reported in the answer to Q2.
4. How much time is spent in providing these services - by pharmacists, clerical workers and technicians ?

Consultant services were defined as "*the periodic drug regimen reviews and related services to individual patients and to skilled - nursery or intermediate -care facilities*". 78% of those who responded were involved in providing the services defined. A mix of 'tiers payant' and "tiers garant" systems were apparently used. 22% used an hourly rate

(salary), 17% used an item of service fee at a flat rate fee per bed or per prescription sheet reviewed, 12% used a flat rate per month (a retainer), and a further 12% used a combination of these three methods.

It was found that a broad range of actual fees was used. Bills ranged from $100 to $1,000 per month; charging per bed or per prescription sheet was within a range from $1.00 to $5.00, and per hour rates were from $12 to $60 (1990). The services provided were not restricted to reviewing prescription sheets and charts and a very large majority of respondents did not charge an additional fee for extra services. These extra services included serving on committees, providing quarterly reports, providing medication administration records, carrying out a survey of adverse responses and the provision of physician order forms. It was reported that a pharmacist could review just under five charts per hour. This puts the value of the fee into some sort of quantitative perspective. Technicians and clerks also had an input into this work, with the clerical worker spending about the same time as the pharmacist on the work involved in these activities.

It must be noted and commented upon that the methods of charging a flat rate fee per month or per bed or per chart reviewed, leads to a monthly invoice of a predictable, perhaps even fixed, negotiated amount. This suits the business managers of the homes or the providers of services to patients as well as the pharmacists involved. This in spite of the fact that charging retrospectively for every hour actually involved, would be a more stable method from the viewpoint of the pharmacist.

In principle, therefore, all the methods which emerged from this survey were based on the time spent by the pharmacists and their staff on serving the home, or the patients in the residential home, or in their own home, plus business overheads and what one respondent termed the "headache factor".

It is of interest that the pharmacists who were charging at the high end of the range were providing services to homes which had trouble with the State inspectors concerning their inability to reach the necessary level of State determined standards. It should be noted that failure to reach such standards can result in the removal from the nursing or residential home of the licence to provide the service and receive an income from Medicare and other insurance organisations. It is also interesting to note that, in the survey, there are reports

of pharmacists reviewing their fee rates because they were "losing money" and, when increased by a factor of four, they found the homes had no objection to paying the increase.

The study referred to, brought attention to the fact that technicians were used to check stock dates, the refrigerators where medicines were stored, medication "carts" and maintaining patient profiles. Clerical workers, on the other hand, typed reports, operated computers, and other similar equipment.

There has been a growth in the number of consultant pharmacists and the actual services provided by them. Services, such as preparing reports to assist in the choice of product prescribed and literature searches have increased as has the use of support staff to assist the pharmacist in providing the increased level of cognitive services [154].

Almost all consultant pharmacists, who are members of the American Association of Consultant Pharmacists (ASCP), were by 1993, charging on a per hour basis. The minority charged per bed, per patient, or combined these two methods. The number of beds in homes is within a narrow range, and so where the service provided involved basically the same input from the consultant pharmacists and their staff, this has resulted in a reasonable basis for setting a bed rate the outturn from which differed little from that of an hourly rate.

The hourly rate apparently varied according to the "level of care needed by patients". It is not clear how this was arrived at, which is unfortunate, since it would seem to be crucial in establishing a true rate for the individual care provided.

When the hourly rate is charged retrospectively, it creates difficulties for the purchaser of the service in forecasting a budget for the pharmaceutical care service. Since the pharmacist is the sole judge of the pharmaceutical care which each patient requires and how long this will take, the purchaser is faced with having in place an open-ended budget. This problem seems to have been overcome by real acquired experience of providing the services, making it easier to assess the number of hours which are likely to be required per patient. It is not, therefore, an unacceptable way of arriving at an hourly rate. The consultant pharmacists say that, knowing the disease and age mix of the patients, they can predict the time involved per month to as near as + or - 5% [155].

An alternative method of charging is a flat rate per month with a provisional addition of 10% to 20% to manage implementing the changes in regulations dealing with the new medication problems and meeting the need for extra lay assistance for the pharmacist. Where homes insist on a fixed monthly or yearly rate, the consultant pharmacists now have enough experience to base this on the number of hours per patient that will be required for the nature of the home and its patients and also use the experience gained by providing the service over a period of time.

Some consultant pharmacists are asked to dispense. It would seem that the income and profit from this activity influences the fees charged for the cognitive services provided.

For example where dispensing was involved in 1990, the average hourly rate was $40, and where it was not involved, it was as high as $75 per hour.

Many consultant pharmacists who also provide a dispensing service maintain that, even at $40 per hour, the consultancy services do no more than break even as it is the dispensing service which produces the profit.

Yet another variation of the payment system involves a flat rate fee plus an amount derived from the average daily census of the number of occupied beds in the facility, or the number of patients at home within a defined geographical area or neighbourhood area.

It is surprising that in no case studied were such things as "expenses", (for example travelling and office overheads) charged or calculated as a separate issue. Such a method is common in professional law and accountancy practices in the UK and it must be a factor in arriving at a fee, which is based on the costs of providing the services.

A more analytical method is to devise a formula which can be consistently transformed from one home to another as required. There are several research projects engaged in this work at present [150].

An example of such a formula is to calculate, from experience, how many days per month are actually engaged in providing cognitive services. The fee charged is the pharmacist's mean monthly salary, divided by the number of days spent in the home, plus the cost of

insurance and other benefits which are received by the the pharmacist (e.g. holiday pay, pensions and bonuses). This figure is then multiplied by 2.5. This factor is based on a professional fee calculation protocol used for similar calculations by lawyers and accountants in the USA. (NB The pharmacist's monthly salary is based on 22 working days per month; the days in which he does not work in the home or directly with patients, he is engaged in writing reports, continuing education and other pharmacy activities).

It is difficult to be precise about the services provided to all homes since the customer requests particular specialised services. For example, drug regimen reviews (DRRs) which are performed on lap top computers for speed and efficiency are normally included in the overall hourly rate, but are sometimes contracted for as a separate service. Similarly, attendance at quality assurance committee meetings and in-service educational programmes, including teaching nurses and other carers on side-effects and certain potentially medication- induced behavioural patterns, are not.

Some pharmacists also sub-contract to train nurses to provide intravenous therapy.

The daily "census" fee (see above) frequently takes account of contracted services, such as;-

- developing policies and procedures; supervising the process for storage, controls and accountability;
- reviewing standard drug regimens on a monthly basis and preparing reports for the owners and the attending physicians,
- monitoring nursing stations for the safe storage of medicines,
- attending drugs and therapeutics committee meetings,
- performing audits and preparing reports,
- conducting and reporting on drug-use evaluations and conducting in-service training programmes.

As a consequence of all these variations of what can be provided, many consultant pharmacists have produced a menu of services on offer. Frequently, the basic services on offer include;-

- drug dosage review (DDR),

- troubleshooting individual patient's problems and problems encountered by the home,
- irregular quality assurance problems and
- preparing a report on the possible reduction of the dose of anti-psychotic drugs.

Extra services, such as in-service programmes, a mini or maxi review of the standards of the facility, destruction of out-of-date drugs, provision of enteral and parenteral feeding, and similar procedures are charged extra. A fee per each item of service is contained in the menu given to the purchaser.

Revised or new innovative State legislation frequently provides pointers for the new services which might be offered. For example, Massachusetts State recently required training programmes for members of the Boards of Management of homes and their care personnel. This was provided by consultant pharmacists. However, when all the officials and staff had been trained, the facility had been unwilling to pay for the spasmodic training of individual, new employees. To counter this the consultant pharmacists developed an interactive video training programme. New employees study, using the tapes, and then sit a test. The use of the video was invoiced to the owners of the home [152].

Yet another service, frequently offered, is computer analysis of therapeutic problems. Customers pay a fee for the answer to complex and complicated questions about everything from drug interactions to pharmacokinetic dosing. One particular consultant provides a nation-wide service for the monitoring of up to 500 patients per year who must be monitored for agranulocytosis as a result of taking Clozapine. Providers of this service, can fax dosing information within minutes of receiving the sample and the request by using expensive computer assisted tests.

The study referred to indicated a general consensus that DDRs take between 6 and 10 minutes per patient, and that this is the core around which other services revolve. Drug Use Monitoring of all patients in a home, and of individual patients in their own home, is the next most common service and requires from 2 to 16 hours per week, depending on the drugs in use and the size of the facility.

It emerges, as would be expected, that the individual patient-care requirements dictate the time and expertise which has to be extended.

A useful statistic is that an "average" facility with a normal mix of patients and diseases requires 13 hours per 100 beds per month, or per 100 patients in their own home for these core services. (This, of course, excludes the provision of other services such as education programmes).

Consultant pharmacists who provide a full range of services employ, as well as pharmacists, nurses, activity and social staff, occupational therapists, dieticians, nutritionists and various administrators and clerical staff. There is an increase in companies who provide these consultant pharmacy services and who employ the relevant pharmacist and other staff. An example is SUNSCRIPT INC., who are now operating on a similar basis in the UK.

In an environment where the number of services, costs and inflation is rising their is the danger that unless the contract terms are reviewed annually pharmacists would be locked into an unsatisfactory situation. Therefore the contract terms should ideally be reviewed every year or at least every second year.

Significant quotes from the published report are that the biggest lesson learned by consultant pharmacists is to ask the question, *"what is the client's perception of your worth*? and it is common to find that *"pharmacists as a rule don't value their services for what they are really worth"*.

The experience of the evolution of payment for consultant pharmacy services is of value to this study, since it attempts to separate the payment for supply and the dispensing of prescriptions, and develop a payment solely for cognitive services. The former problem of separating the costs involved in these separate services has resulted in Scotland in the payment of a professional allowance related to the number of items dispensed (Appendix 1) rather than price the services individually.

In the USA standards for pharmaceutical and related services are set in each State by the State legislature. These standards have to be met if the home is to retain its licence to provide care to its clients and receive Medicare and other payments where these are appropriate. The consultant pharmacist have found that it is important that the services

provided are detailed accurately and that their relevance to the meeting of the standards is made clear.

These services by consultant pharmacists are now being provided to patients in their own homes, and a separate, and a similar, standard of care is required to be met.

These developments have influenced the models which will be studied in this thesis.

It is important to recognise that countries, which have followed the USA in providing consultant cognitive pharmaceutical care services, have all encountered similar problems and proposed similar solutions in order to remunerate pharmacists for providing pharmaceutical care. For example, in Canada similar diverse solutions to the problems outlined in this section were implemented in 1992 [156].

INDICATIONS FOR SCOTLAND REGARDING THE SITUATION IN USA

The vast majority of community pharmacies (i.e. "Drug Stores") in the USA are remunerated by the mark up system, with some add on fees mostly for extemporaneous dispensing. There is a near perfect market for the dispensing of prescriptions for patients who do not rely on a third party payment system (see above). It is, of course, not a perfect market since the supplier of the goods and services (i.e. the pharmacy) has more knowledge and information than the purchaser, although this is changing. In other respects there is a near perfect market since in the large private market the fee charged and the mark up is a competitive contract between the patient and the pharmacy. This does not exist where a third party payer is involved. In this latter case the third party payer has to compete with the fees paid with the private sector.

However, with the increased application of clinical pharmacy, and more recently the application of the philosophy of total pharmaceutical care in the primary care setting, payments are increasingly made for cognitive services which are not directly allied to the dispensing process.

This latter development has been accelerated by National and State laws which require third party payers and institutions, which rely on third party payments for the bulk of their

income, to be accountable for the safety and efficiency of treatments. Such laws and regulations frequently demand whole or partial Drug Use Monitoring, Drug Dosage Reviews, setting the standards for the monitoring of storage conditions, the training of care staff and the audit of care. Similar changes are occurring in Scotland and the various tentative remuneration methods adopted in the USA must be considered by Scotland in the near future. Some, if not all , are capable of being incorporated into the NHS system in Scotland..

SUMMARY OF THE REMUNERATION OF PHARMACISTS IN THE COUNTRIES STUDIED

A summary of the relevant position in all the above countries is given in the attached Tables 12 and 13. It is evident that the more State control there is the more likely that comparative figures can be determined. In most of the countries no reliable data presented in a common form was available. Also where some data is available, it is not presented in a form which can be used with data from other countries. This reflects the organisational and status of community pharmacy practice in a large number of countries.

It is clear from the methods used by the countries studied in this Chapter that the mark up system is the most widely used remuneration system for traditional community (retail) pharmacy services. Where additional fees are also paid, they tend to be associated with extemporaneous dispensing. In this latter case such fees are weighted to the complexity of the procedure.

It is also clear that there has been a move towards payment for cognitive services which are unrelated, or only marginally related, to the dispensing process (e.g. Ireland and USA).

In all countries, but particularly in Ireland and USA, there is evidence that research is being used to develop models which are then gradually introduced into the negotiating process. New ways are being developed to pay for cognitive services.

This is particularly apparent in the USA where Managed Care has reduced and even eliminated the mark up on the products sold or supplied. In all other countries there is evidence of a progressive reduction in the mark up allowed.

TABLE 12

COMPARISON OF CIRCUMSTANCES IN COUNTRIES STUDIED (1)

COUNTRY	POPULATION	NO OF [2] PHARMACIES (APPROX) [1]	POPULATION/ PHARMACY	REMUNERATION SYSTEM (SEE KEY) [2]	PHARMACY MONOPOLY	LEGAL CONTROLS OF DISTRIBUTORS OF PHARMACIES	PATIENT CHARGES
AUSTRALIA	12M	19,300	[1]	MDS	NO	NO	YES
FRANCE	48M	22,000	[1]	MD	YES	YES	YES
GERMANY (OLD WEST)	58M	21,000	[1]	MD	NO	NO	YES
ITALY	52M	30,000	[1]	MDS	NO	YES	YES
NETHERLANDS	13M	1,600 (900 in community)	13,000	MDSC	YES	NO (being considered)	YES
RUSSIA	230M	22,000 (19,000 in community)		SL	YES	YES (maybe change)	NO
SWEDEN	8M	2,800 (2,400 in community)		SL	YES	YES	YES
SWITZERLAND	6M	1,600 (1,300 in community)		MD	NO	YES (by cantons)	YES
IRELAND	3.3M	2,000 (1,800 in community)		MDCP	NO	YES	YES
DENMARK	4.6M	1,6000 (640 in community)		MD	YES	YES	YES
NORWAY	3.8M		15,000	MD	YES	YES	YES
USA	210M	121,000 (110,000 in community)	12,000	MDSCSL	NO	NO	YES
SCOTLAND	5M	3,300 (1,700 in community)	4,750	MDS	NO	YES (only for NHS purposes)	YES
NOTES	[1] Total number of community pharmacists not known; [2] Pharmacies owned by public/private insurance institutions, mutual benefit and miner's aid funds permitted						
KEY	M Mark up; D Dispensing fee; S Special dispensing fee; C Capitation whole; CP Capitation part; SL Salaried.						

TABLE 13

COMPARISON OF CIRCUMSTANCIES IN COUNTRIES STUDIED (2)

COUNTRY	EXISTENCE OF MULTIPLES	AVERAGE (APPROX) TURNOVER OF PHARMACIES (MEDICINES)	GROSS PROFIT ON NHS	NET PROFIT ON NHS	% FROM DISPENSING (APPROX)	STATE CONTROL OF PRICES OF MEDICINES	% FROM OTC SALE OF MEDICINES (APPROX)
AUSTRALIA	YES	Not available	Not available	Not available	Not available	NO	Not available
FRANCE	NO[1]	£0.6M	27% (declining)	2%	80%	YES	10%
GERMANY (OLD WEST)	YES	Not available	32% (declining)	3%	75%	NO	20%
ITALY	NO	,,	30% (declining	2.5%	82%	NO	15%
NETHERLANDS	NO	,,	35%	3%	80%	NO	10%
RUSSIA	NO	,,	Not available	Not available	90%	NO	7.5%
SWEDEN	NO	£2.5M	,,	,,	80%	YES	10%
SWITZERLAND	NO	Not available	35%	3.2%	70%	YES	10%
IRELAND	YES	,,	Not avaklable	Not available	70%	NO	10%
DENMARK	YES	£2.4M	25%	2%	80%	YES	11%
NORWAY	NO	£1.6M	28% (declining	3.82%	75%	YES	15%
USA	YES	Not available	Not available	Not available	60%	NO	18%
SCOTLAND	YES	£97,000	18%	>2%	70%	NO	12%
NOTE	[1] Pharmacies owned by public/private insurance institutions, mutual benefit and miner's aid funds permitted.						

In the USA there is now a National Council for Prescription Drug Programmes (NCPDP). This is a non profit making organisation with an extensive membership including independent and chain pharmacy providers, consultant pharmacists, public and private health insurers, computer companies, software suppliers, pharmaceutical wholesalers, mail order prescription drug companies, so-called claim processors and virtually every other relevant player in the prescription drug industry in the USA. The fact is recognised that in the latter business the prescribers and the pharmacists are not the sole players.

The increased activities of consultant pharmacists in the USA, together with the fact that they provide a large number of cognitive services, while not dispensing for their patients, has resulted in changes in the payment system. The use of a mark up on defined products and dispensing fees is no longer appropriate. Payment systems such as capitation fees and fee for items of cognitive services have been adopted. Outcome based payments are being introduced . Thus payments are increasingly being linked to desired patient outcomes being achieved and/or avoidance of undesired outcomes. It has been suggested by Rupp [150] that an outcome, or resource based but outcome adjusted approach to valuing pharmaceutical care and its related professional services, may represent the ideal way forward.

The problem which is currently being addressed in the USA is whether or not it is realistic to expect that a workable fee setting system (i.e. a remuneration system) can be created by such a researched based approach. Rupp [150] has suggested that it is not realistic to expect a workable model to emerge from research which would entirely eliminate negotiations. He believes that this is because purchasers, whether private payers or third party payers, are all faced with an upper limit being placed on the available resources. Such resources, from whichever source, are finite and so prioritisation of the use of available resources is essential if a fair and manageable health care service is to work in the interests of all parties. Such prioritisation ultimately requires a degree of bargaining or negotiation.

It is obvious, therefore, that negotiations must continue since, with limited resources, prioritisation must be a factor in arriving at the quantity of resources made available for pharmaceutical services. There will continue to be negotiations between those who purchase and those who provide the required services. Thus, whilst the presently discredited "global sum" system in Scotland could be changed, any new system must by definition have an upper limit of resources available or made available for pharmaceutical care services. In Scotland this latter fact is not disputed in this study. What will be debated below is that the present "global sum" system could be improved to allow a more flexible and patient orientated (pharmaceutical care) system to be introduced.

DISCUSSION OF SYSTEMS IN SOME OTHER COUNTRIES AND THEIR RELEVANCE TO SCOTLAND

There are a number of lessons to be learned from the remuneration systems used by the countries studied in this thesis. These are summarised below:-

1. Where the community pharmacy service is State run or is a State monopoly as in Sweden, those who provide the service are employees and remunerated by a salary as in the NHS hospital service in Scotland, This has several consequences. For example, the resources made available to pay for the products supplied can be uplifted by a on-cost or mark up on the net cost of the products. The resources for providing the cognitive services can then be used by managers in a flexible manner to determine and to provide the cognitive services which are made available. If the State determines these services and how they are to be provided, the level of the mark up allowed must clearly be sufficient to pay for these services. It follows that the staffing and other costs of providing these services must be arrived at factually. If this is not done then the services cannot be provided in the desired manner to the required standard. Arbitrary assigned mark ups will not result in the provision of consistent cognitive services of the desired quality.

2. Where the income of private businesses contracted to provide State health services depends on a mark up or on-cost onto the net cost of medicines then there is a tendency for the cost of medicines (not necessarily the price) to increase. Also unless the cognitive services to be provided and their standards and level of provision are clearly defined the level and quality of such services will be determined by the pharmacy business managers and not by the health service or the profession.

3. Changes in the contract for the provision of community pharmacy services and the consequent change in the remuneration system frequently and logically follow the change in health service policies and priorities (e.g. in Ireland and the USA).

4. State health services managers are unlikely to alter current contracts purely to satisfy the aspiration of a single professional group. Changes are more likely be made when there

are fundamental changes made in relevant health service policies (e.g. in Ireland and the USA).

5. The method used by the health service to include patient contributions to the provision of pharmaceutical services can influence the remuneration system. However, in Scotland where the prescription charges raised by the Government are set against the "drug bill" and not against the remuneration of the service provider [157], the influence they have is limited to the cost of medicines and on the demand for products and not at all on the cognitive services which are determined to be necessary. The policy of assigning the patient's co-payments to the cost of products and not to the remuneration of the provider is in line with the policy of common drug prices across the European Union [158].

6. The arguments against total patient registration with one pharmacy and the payment of total capitation payments can be partly countered by the introduction of need-specified-registration coupled with capitation fees for patients so registered (e.g. Ireland and The Netherlands).

9. Where there is a large market for the sale of medicines without prescriptions and medicines available from other than pharmacies, the remuneration system used by the State health service becomes more complex. Systems which ensure that a monopoly or near monopoly of the provision of services by large multiple suppliers does not deprive small communities of State pharmaceutical services have frequently to be adopted. On the other hand, where pharmacies have a monopoly of the supply of products and services, the State has to ensure that systems are in place which avoid the generation of excessive profits or fees.

10. It is clear that the philosophies, organisation and policy of the State health service is a highly influential factor in determining both the system and level of remuneration for the provision of community pharmacy services. For example, though there may be attractions to the profession of the introduction of systems used in Denmark, The Netherlands, Norway and some of the newer system in the USA to Scotland, the current organisation and philosophy of the NHS makes this difficult. In some cases (e.g. Denmark and Norway) it will be impossible.

11. It is clear that acceptable arrangements which provide a satisfactory service to patients and the public can be provided by the profession with far fewer pharmacies providing State services than exist in Scotland. Virtually every country in Europe has a lower ratio of pharmacies to population than Scotland.

12. The provision of the concept of pharmaceutical care requires a more detailed costing of the tasks involved if such a service is to be cost efficient. If pharmaceutical care is to be introduced more widely, then appropriate remuneration systems which are not related in a direct way to drug prices must be used. However, they could be related to the drug costs which the population generates. For example, the fees could at least in part be related to the saving in drug costs achieved by the application of pharmaceutical care. It is unlikely pharmaceutical care fees related to services provided will be introduced into a State system, unless payment systems which are related to the cost of the services provided are introduced.

13. Where there exist a high degree of State intervention in the provision of community pharmacy services, the higher the quality and availability of transparent data which can be used to determine a fair and acceptable system and level of remuneration.

CHAPTER 9

AN EXPLORATION OF POSSIBLE REMUNERATION MODELS

In the current circumstances in Scotland there are two approaches available for devising possible models of remuneration that would be different from the current system. The first is to examine models which work within the current global sum philosophy. The second is to explore models which do not rely on the use of a global sum in its present form but take into account the NHS organisation structure and philosophies.

In the present arrangement, the total remuneration paid and the rate at which it is paid, is constrained by the existence of a global sum. This means that each year, there is a maximum amount of money available, and the fees and allowances have to be set at a level which results in this sum not being overspent. Thus the fees paid frequently do not bear a direct relationship with the true cost of providing individual specific services. Further, the number of such services and the level to which they are to be provided are ill defined in the NHS Pharmaceutical Regulations [36].

The setting of the fees and allowances could be altered to reflect the change in pharmacy practice, from a product orientated profession to a profession increasingly dependant on the provision of cognitive services within the constraints of the current global sum. This would require a new contract to be defined in the NHS Regulations

However, with the global sum philosophy, any changes which result in new or higher payments for some or all of the latter services will result in lower or no payments for some or all of the product orientated services currently provided. It is clear that whilst a different method of allocating the global sum could change the behaviour of NHS contracted pharmacies, it is not clear how they would directly influence the behaviour of the pharmacists who provide the service. Those who are employed by NHS contracted pharmacies would be unlikely to receive a change in their salary unless the owners contract with the NHS was changed..

There are more employed pharmacists in the community than there are pharmacists who are owners. Thus what would change would be business practices. For the profession and/or

the Government to ensure that any such changes fed through to changes in patient care would require to be driven by the aforementioned changes in the NHS Pharmaceutical Regulations. Changes in remuneration alone would not achieve changes in the type of patient care services which the profession and the Government may desire. Ireland and the USA gives a reasonable example of this.

In a practical sense, the effect of changes could be ameliorated over a period, if annual inflationary increases in the global sum were used solely to introduce new fees for new cognitive services, or uplift current fees for such services. However, the period of change could be protracted, and the quantum of the fee set would have to be at a level which would not necessarily be commensurate with the resources required to provide the service. This outcome is likely since it is probable that the inflationary increase over the next few years will be barely enough to pay for the increase in the number of dispensings. Pharmacy contractors would then be providing the specified cognitive services at a financial loss. This is unlikely to be acceptable.

There are many ways in which the resources represented by the global sum could be distributed. Models are explored here which incorporate the desire to move away from product orientated payment to patient orientated payment, and yet are within the current global sum. These have been called, "Top Down" Models.

The model which resulted in a salaried service is excluded for the reasons given in Chapter 2, page 22. A salaried service would mean the dismantling of the present contractor service, and although that may appear as a possibility for reducing administration costs, the compensation and other costs to the large and small private companies are unlikely to find favour with the Government or the companies concerned. In addition in making any changes in the remuneration system the Government would have to ensure that it is acting in a reasonable manner. If one or more contractors received less reward for providing the same services as before the changes, they would be in a position to mount a legal challenge against the action of the Government. This would still be possible when the majority of the contractors agreed with the changes. The effect of changes on their profit and/or loss incurred by individual contractors in providing NHS services (as opposed to contractors as a whole) would be judged in such a legal challenge by a test of the equity and fairness of the changes. It is for this reason that the profession has maintained that changes which

could improve the services and care of patients and which are aimed at improving the outcome of treatment with medicines should come from an increase in resources and not from an adjustment on how the current global sum is allocated. The reason for this is that the current global sum is allocated to resource the execution of the current contract. It is for this reason that a new contract would be desirable. The new contract would re-define the services to be provided.

All this was taken into consideration when the models were constructed.

The measures which could alter the behaviour of the pharmacists which provide the service are not necessarily or likely to be those which would alter the behaviour of contractors (see Chapters 4 and 5). For example, measures which improved education and training, increased direct patient involvement with a view to improving patient care, rewards related to achieving outcome of treatment and reduction in the use and abuse of medicines, a decrease in number of prescription dispensed and rewards which encouraged this could motivate pharmacists. These would not, however, necessarily find favour with contractors unless they were at least cost neutral. Smith [159] demonstrated that the only factor which motivated contractors was an increase in the unit profit margin on the supply of products.

Therefore models are explored where the current level and philosophy of the global sum would not exist although an upper limit would still be used. The basic costings for the services provided are translated into a remuneration system aimed at supporting a continuous, uniform service to patients, which is consistent in both urban and rural areas. In addition, the costs to be reimbursed and the return-on-capital invested which are used are similar to and are based on those allowed in the other branches of the NHS and in other professions providing a service to the NHS. These models have been entitled "Bottom Up" Models.

The models explored under this heading conclude with a compromise model using lessons learned in studying the earlier top down and bottom up models. Systems used in other countries have been taken into account (e.g. Ireland and the USA), as have the current organisation of the NHS, the suggested changes which appear in the most recent Government publications, and the proposals for change emanating from the profession.

This compromise is aimed at satisfying the aspirations of pharmacists and contractors and achieving the objectives of the NHS in Scotland as far as these are known.

All of the models studied are to an extent exemplar and to a degree descriptive, since they have yet to be piloted. The next stage in this area of research would be to develop computer assisted models of the models which obtain general approval in order to develop them in situ.

The costings in the models are based upon the standard profit and loss system, suggested by Maguire [160]. A description of the system used appears in Appendix 19 .

In "Top Down" models one and two the staff numbers are constant whether the pharmacy carries out 10,000, 20,000 or 40,000 dispensings per annum since the law and ethics require that staff are present at all times no matter how many NHS dispensings are carried out. In real situations there might be slight changes in staff and other costs with an increase or decrease in dispensings, although the variation will be so small as to be discounted for the purpose of this exercise. The other costs used (except professional fees) are proportional to the throughput. All the costings used were obtained from a small sample of pharmacies of the specific sizes and from [160] (see Tables 12, 13 and 14). A small sample of community pharmacies provided in confidence and in anonymity their costs in relation to rent and rates, insurance, motor expenses, light and heat, telephone, accountancy and general expenses to the author. They are, of course, not necessarily representative but are used for comparative purposes only.

The list of costs used are those which were recorded for the cost plus contract (see Chapter 7). Twelve contracted pharmacies carrying out the number of dispensings previously mentioned in this paragraph (namely 10,000, 20,000 and 40,000 per annum) were contracted and their costs under the heading previously detailed in this paragraph and in Tables 13,14, and 15 were requested for the relevant year (3 from each throughput). These co-related with those cost details suggested Maguire [160] and a compromise figure was arrived at which appears in the Tables 13,14,and 15. Such a composite, average or compromise figure is all that could be used since it would be impossible to acquire the actual real costs of every contracted pharmacy in Scotland. All those involved in supplying

the data regard them as commercial in confidence. These costings were provided for this study on a non-attributable basis.

The use of the profit and loss and the income and costs method of comparison is, of course, limiting. It is appreciated that from an economic perspective a focus on resources employed and the best use of these resources would come into play. However, the resources available are not provided by the Government; they have to be provided as commercial investment in a commercial business and the judgement on how best they can be utilised is a matter of judgement for the shareholders (where relevant) or for the other owners. The NHS Pharmaceutical Regulations [36] determine what NHS services are to be provided and how they will be rewarded. The provision of new cognitive services which do not appear in the Regulations will not be directly rewarded. Therefore, if new services are requested and the rewards are to come from the global sum then the rewards would have to be changed in such a manner that would result in the profit (or loss) being at least neutral before contractors would provide them. A policy which aims at forcing costs down by reducing available resources without changes in Regulations and by introducing new services without increasing resources is questionable.

In Tables 12,13, and 14 the sum of the other fees and allowances divided by the number of dispensings each exemplar pharmacy dispenses results in an average fee per dispensing of

$$88p + [£10{,}127 \div 10{,}000] = £1.893$$

$$88p + [£19{,}404 \div 20{,}000] = £1.850$$

$$88p + [£34{,}606 \div 40{,}000] = £1.745$$

It should be emphasised that there is a significant difference between "dispensings", "prescriptions" and "items" (see glossary of terms for an explanation). The figures £10,127, £19,404 and £34,606 are the difference between the total income in Table 12 and the fees which are attributable to dispensings income (i.e. 10,000 at 88p etc)

TABLE 12

PRESENT SYSTEM EXEMPLAR FOR PHARMACY DISPENSING 10,000 ITEMS PER ANNUM (based on 1995/96) (equivalent to serving 1,000 patients with 833 dispensings per month)				
Income	**£**	**Expenditure**		**£**
Items(dispensings)10,000 x 88p	8,800	Wages and NIC(70% of gross)		35,000
Pre-reg allowance	4,600	Rent and rates	"	660
Professional allowance	3,088	Insurance	"	280
Other fees (inc. appliances, extemporaneous, etc.)	724	Motor expenses	"	700
		Light and heat	"	420
Other allowances (PMRs Residential Homes)	250	Telephone	"	210
		Replace/renew	"	210
Stock orders	25	Postage/advertising	"	210
O_2 fees	1,440	Prof. subs.	"	240
		Accountancy	"	210
Gross NHS income	20,927	General expenses	"	350
		Depreciation	"	560
		Total		39,050
		Net Income (loss)		(18,003)
NHS reimbursement of 10,000 dispensings at £8.11 per dispensing = £81,000				

TABLE 13

PRESENT SYSTEM EXEMPLAR FOR PHARMACY DISPENSING 20,000 ITEMS PER ANNUM (equivalent to serving 2,000 patients with 1,666 dispensings per month)				
Income	**£**	**Expenditure**		**£**
Items(dispensings)20,000 x 88p	17,600	Wages and NIC(70% of gross)		35,000
Pre-reg allowance	4,600	Rent and rates	"	1,320
Professional allowance	10,176	Insurance	"	560
Other fees (inc. appliances, extemporaneous, etc.)	1,448	Motor expenses	"	1,400
		Light and heat	"	840
Other allowances (PMRs Residential Homes)	250	Telephone	"	420
		Replace/renew	"	420
Stock orders	50	Postage/advertising	"	420
O_2 fees	2,880	Prof. subs.	"	240
		Accountancy	"	420
Gross NHS income	37,004	General expenses	"	700
		Depreciation	"	1,120
		Total		42,860
		Net Income (loss)		(6,410)
NHS reimbursement of 20,000 dispensings at £8.11 per dispensing = £162,200				

TABLE 14

PRESENT SYSTEM EXEMPLAR FOR PHARMACY DISPENSING 40,000 ITEMS PER ANNUM (equivalent to serving 4,000 patients with 3,250 dispensings per month)				
Income	**£**	**Expenditure**		**£**
Items(dispensings)40,000 x 88p	35,200	Wages and NIC(70% of gross)		35,000
Pre-reg allowance	4,600	Rent and rates	"	2,640
Professional allowance	21,000	Insurance	"	1,220
Other fees (inc. appliances,		Motor expenses	"	2,800
extemporaneous, etc.)	2,896	Light and heat	"	1,680
Other allowances (PMRs		Telephone	"	840
Residential Homes)	250	Replace/renew	"	840
Stock orders	100	Postage/advertising	"	840
O_2 fees	5,760	Prof. subs.	"	240
		Accountancy	"	840
Gross NHS income	69,806	General expenses	"	1,400
		Depreciation	"	2,240
		Total		50,580
		Net Income/loss		19,806
NHS reimbursement of 40,000 dispensings at £8.11 per dispensing = £324,400				

In the fiscal year 1995/96, the number of dispensings nationally was 54M, and the global sum was £72M. Both these figures have been rounded (see Chapter 3). This gives an average total dispensing fee of £1.34 per item. The reason why this is lower than any of the examples (see above) is that the quantum of the average total fee per dispensing falls under the present remuneration system as the number of dispensings per annum increases, and there are significant numbers of pharmacies in Scotland with more than 40,000 dispensings per annum [161].

Where it is relevant and appropriate in the models, the actual average fee per specified pharmacy is used. However, in experimenting with alternative systems, as in Top Down models 1 to 3, it has not been possible to calculate a new definitive fee for pharmacies of specific sizes since the variables in the models are different and fewer than in the current remuneration system. In most cases, therefore, it has been necessary to use the national average of £1.34 calculated as above.

In 1995/96, the net ingredient cost (NIC) of all of the products dispensed was £438M. This included dressings, appliances and oxygen, as well as medicinal products and diagnostic agents. Given 54M dispensings an average NIC for each dispensing of £8.11 results (i.e. Pharmaceutical vote is £510M less global sum of £72M see Chapter 3, Figure 2).

The Top Down models and their outcomes on the remuneration of exemplar pharmacies are based on comparisons of income under the present system and possible incomes under the specific model which is being considered. The example income and costs of these pharmacies appear in Tables 12,13 and 14 respectively. As previously stated it is not possible to be precise about the exact total income of each pharmacy in Scotland in any given year. Therefore, an estimated income has been used as explained above. Costs have been worked out in a similar way. Therefore in the models, the income before and after should not be taken as actual for a given size of pharmacy. Both are notional figures used here for the stated purposes of comparison.

The evidence from the profession in Scotland over the last thirty years is that the costs incurred in providing the NHS service and the income derived from it account for, on average, 70% of the total costs and income from the average business. The 30% is from the other diverse business activities. This study has used this split in the source of costs and income [162].

In some of the models, certain assumptions are made. These are noted at the appropriate place in the text.

TOP DOWN MODEL ONE - A MARK UP

This model is a simple conversion of all the current fees and allowances to a single mark up payment method and has been included in this study only because many pharmacy contractors in this and other countries believe it is the fairest way to remunerate retail pharmacies. The arithmetic in this study demonstrated that within the current global sum philosophy it would not be advantageous to pharmacies carrying out the detailed dispensing as listed. Details are given in Appendix 21. In 1995/96 the exemplar global sum was

£72M and the "drug bill" was £438M . These together form the primary care pharmaceutical vote (see Chapter 3). This latter is what is commonly known as the "drug bill" and includes both the NIC of the products supplied and the remuneration of community pharmacies. Therefore, the pharmaceutical vote was £510M. The proportion of this amount which was allocated to remuneration was £72. The percentage of the pharmaceutical vote which this represents is therefore the percentage mark up available to contracted pharmacies. If the total global sum was paid as a mark up of the total pharmaceutical vote this would involve a mark up of the proportion of the vote which each pharmacy received under the present system. All fees currently paid would be included in this figure. The percentage mark up would be;-

$$£72M \div £510M \times 100 = 14.1\%$$

The relative income and expenditure for the exemplar pharmacies is given in tables 12,13, and 14. The average net ingredient cost (NIC) of each dispensing in the year in question was £8.11 (see above).

DISCUSSION ON TOP DOWN MODEL ONE

This model would not satisfy the criteria for an improved remuneration system (see Chapter 3 and 5) as:-

1. It would not accurately (or directly) the costs incurred in purchasing, storing and distribution of the products involved.
2. It does not make adequate provision for the replenishment of capital or provide new capital to improve the service.
3. The income would make it difficult to engage the necessary legal number of pharmacists and technicians at current salary levels.
4. As a consequence, the competitive salaries (or income to an individual owner pharmacist) compared with, say the NHS hospital service could not be paid without cross subsidy from other parts of the (non-NHS) part of the service.
5. The Government would continue to be satisfied that the amount made available was affordable under the public expenditure allocation.
6. If, as a consequence of the foregoing, the level and availability of the service was less than at present, the patients would be disadvantaged.

7. For continued viability contracted pharmacies would have to increase the level of cross subsidy from the non-NHS and non-care aspects of the business.
8. It would not made a positive contribution to the appropriate level and number of contracted NHS pharmacies.

This remuneration model does not relate directly with the cognitive and other services required to be provided. It only relates directly to the total value of the products supplied. In addition this model does nothing to improve the pharmaceutical care service given to patients. Lastly it is fair and equitable only in the sense that those with a higher throughput of dispensings of high value receive a higher income than those with the reverse conditions. It does not reward at all the provision of cognitive services (i.e. the model does not satisfy criterion 9).

TOP DOWN MODEL TWO

In this model all fees and allowances would be discontinued to be replaced by a single standard fee. It has been included here only because there is a school of thought that it is a simpler method and is compatible with how other professions are paid. The detailed arithmetic is contained in Appendix 21.

DISCUSSION ON TOP DOWN MODEL TWO

If this model was introduced, it is possible that there would be a drive by pharmacies to reduce costs. This could be considered by the Government to have advantages.

The considerations of this model against the nine criteria in Chapter 3 is given as follows:-

1. This model would not improve the performance in regard to the handling of the products. In most cases the position would be worsened unless the contractor could reduce costs significantly. This would not be possible without a change in NHS regulations.
2. There would be no improvement in the servicing of capital invested.
3. There would be no improvement or change in the resources available to increase the input of the professional pharmacist.
4. This model would not divert resources from the product to pharmaceutical care.
5. It does not change the resources required. This criteria is, therefore, satisfied.

6. There is no reason to believe that it would improve the accessibility, safety, efficiency and effectiveness of the service and would not positively motivate the change of location of any pharmacies.
7. This model would still require cross subsidy from the non-NHS part of the business where this already exists.
8. This model may reduce the number of pharmacies in contract to the NHS. Those who close, however, would be the smaller ones and would thus leave gaps in the service to the less mobile members of the public.
9. This model does not in anyway relate the costs of providing cognitive services and the rewards paid for providing them.

None of the patient orientated criteria in Chapter 5 are met by this model.

TOP DOWN MODEL THREE (FIRST VERSION)

In this model, the method used to underpin the payment of general medical practitioners is here tentatively explored as a possible model for remunerating the pharmaceutical service. This is the capitation system. A weighted capitation system was proposed by the current Chief Pharmacist at the Scottish Office in a paper presented to the FIP in 1996 [115]. There is evidence that other community pharmacists are of the same mind and are advocating a capitation system [163]. Other countries have experimented with capitation payments with little success [164, 165]. Though patient care was thought to be improved, there was no significant financial advantage to the participating pharmacies, in fact they incurred a loss. Therefore, the system was unacceptable at least to those who incurred a loss. Whilst this is in theory not a major obstacle, particularly if it can be shown to improve patient care (i.e. meet the patient criteria in Chapter 5), it would require a change in the NHS Pharmaceutical Regulations before it could be implemented. That is a new contract would be essential.. Before exploring various methods of weighting the capitation, this model looks at a straightforward unweighted version.

Strand [2] and her colleagues suggested that when extensive cost and clinical data from the provision of pharmaceutical care was collected a capitation system may be possible. In the meantime, she implied it was not an effective manner to pay for pharmaceutical care.

As explained in Chapter 2, the capitation system has been used in this country to pay general medical practitioners since 1912.

It has continued since then, and has been commended in the latest Government discussion paper on the future of the NHS Primary Care service in Scotland [89]. On average in Scotland, in the year 1995/96, each patient received ten dispensings (see above). If it is accepted that the number of dispensings is a satisfactory proxy for the number of patients treated, the pharmaceutical professional allowance introduced in 1992 could be regarded as a proxy capitation system. However, this latter differs from a true capitation system. For example, the professional allowance payment does not require patients to register with one pharmacy.

In Scotland, an unweighted capitation system would allow a basic capitation allowance of £14.40 per annum based on a global sum of £72M and a population of 5M. These figures are used as exemplars only.

The effect of this on the three model pharmacies dispensing 10,000, 20,000 and 40,000 items per annum (which equates to 1000, 2,000 and 4,000 patients per pharmacy) results in a gross NHS income of £14,400, £28,800 and £57,600 per annum respectively compared with the current total fee etc income (see Tables 12,13, and 14). If the global sum increases and the population remains static the capitation sum would increase.

The reimbursement of the NIC of the products supplied would be unaltered.

The consequence of the gross (and net) NHS income follows a similar pattern to the results from models one and two. In all cases used, the pharmacies serving 1,000, 2,000 and 4,000 patients would suffer a loss in gross income. To benefit from this system, the pharmacy would have to serve something in the order of at least 20,000 patients or significantly reduce their costs which is unlikely as previously explained.

DISCUSSION ON TOP DOWN MODEL TWO (FIRST VERSION)

This model does not satisfy any of the criteria used to judge these models (Chapter 2, page 30) except that it does not require the Government to increase resources, nor does it meet

any of the patient criteria in Chapter 5, page 68 except that greater continuity of care may result. Whilst, in theory, those pharmacies providing a better service than others could attract new patients, this is not likely to occur since the level of service to be provided is laid down in the NHS Pharmaceutical Regulations [18] and all pharmacies are required to abide by them. Also vulnerable patients such as young children and their mothers and the elderly are not likely to travel long distances to receive a "better" service since their local pharmacy is obliged by the terms of their contract to provide an adequate service.

An unweighted capitation system would not improve the income of any contracted pharmacies and the benefit to patients is minimal. Indeed if the system, as it would, required registration with one pharmacy to the exclusion of all others, patients could be inconvenienced if that pharmacy was not always in the most accessible place to meet their home and work location requirements. The fact that the pharmacy would apparently be aware of all drug treatments including non-NHS provided drugs does not stand up to close scrutiny. Patients would still be able to purchase GSL medicines from other pharmacies without the knowledge of the pharmacy with which they were registered. A system of IT networking between pharmacies of all such purchases would not improve the situation since such products are also available from outlets other than pharmacies.

In summary this version compared with the criteria in Chapter 2 performs as follows:-

1. It is not certain that the un-weighted capitation model would accurately reimburse the costs involved in the purchase, storage and distribution of products.

2. This model does not guarantee that the cost of servicing the capital invested in the business would be recouped.

3. If the capitation fee was at a high enough level then it is possible that the costs of employing staff with correct level of expertise would be recovered. The current level of the global sum, however, makes this doubtful.

4. The current resources available in the present global sum would not ensure that this criterion would be met.

5. If the true costs incurred were met it is unlikely that the current global sum would be sufficient to meet all legitimate costs. Unless Parliament was prepared to meet the additional sums involved (i.e. the increased global sum was still affordable), this model would be deficient in this respect.

6. This criterion could be met provided the resources allocated were sufficient.

7. Unless the resources were sufficient to reimburse all the legitimate costs involved in providing the service, this criterion would not be met.

8. This criterion is unlikely to be satisfied with the current resources.

9. This criterion would not be met within the current resources if this model was adopted.

TOP DOWN MODEL THREE (SECOND VERSION)

In this model an attempt is made to examine a crude weighting system, using age as the weighing factor.

There is some evidence that the provision of pharmaceutical services for the very young and the very old is more complex than for the remainder of patients in the primary care sector [166, 167, 168, 169, 170, 171, 172]. There is ample literature detailing how the old and young require more medicines than the remainder of the population. This is because they have more diseases, multiple disease conditions and physiologically and biochemically they handle medicines in a less efficient manner. These factors are now accepted wisdom that these age groups require a higher level of pharmaceutical care than the remainder of the population. It would, therefore, be more equitable if their care resulted in a higher reward than the treatment of patients in the other age groups. There is currently underway a Pan European project to measure the outcome benefits (humanistic, patient satisfaction and clinical) which pharmaceutical care provides for such patients. There are two years of the study to run but Professor McElnay (the project co-ordinator) [173] reports that the early results are promising. The indications are that pharmaceutical care for the elderly improves the outcome of treatment with medicines.

The age distribution of patients in Scotland is easily obtained from published census data (see Table 15), [174] The data is also available from the Census publications for populations within specific postal code areas. If it were possible to ensure that there was a good correlation between the patients served by a pharmacy and the post code areas of their habitats, then the age mix of patients served by every pharmacy could be ascertained. It has been suggested informally to the author by a few community pharmacists that their patient medication records (PMRs) would also give this information. This is not so since the patient's medical records (PMRs) only hold information on the proportion of patients served who have used the pharmacy to obtain prescribed medication. The purchase of GSL medicines and in some cases P medicines is not recorded.

The study of the distribution of pharmacies and the population served by them in the Mersey Region of the NHS was carried out in 1991/92 by the Urban Research and Policy Evaluation Regional Research Laboratory (ERPERRL) of the University of Liverpool, together with the Mersey Academic Practice Unit [175]. These researchers used geodemographic methods of analysis. The study suggested that this system could be used to identify the age mix of the population served by individual pharmacies. It was also suggested that it could identify the affluent and underprivileged areas provided these descriptions were well defined by social conditions for which good data was available (see above). If this model was favoured, therefore, a basic method would appear to be available which could be used to indicate the age and degree of affluence or otherwise of the population served by each and every pharmacy.

From the figures in Table 15, the percentage of those whose age is above 60/65 is 18.2% and below 16 is 20.2% in Scotland. In the Highland Region the respective percentages are 17.4% and 21.4% and in Tayside 20.4% and 19.4% respectively (In the census the age for 'the elderly' is 60 for women and 65 for men). Need is not necessarily measured by the number of prescriptions presented. Some GPs prescribe for six months or even a year at a time whereas others prescribe for only a month. The present system of payment is based on number of items dispensed; not need.

If it is assumed with some substantive research support [2], that patients over 60/65 and under 16 require an increased level of pharmaceutical care input than those between 16 and 60/65, then the results of a weighted capitation system on the income of the pharmacies

used as exemplars in this study can be calculated. The increased level of care required is expressed as a factor. However, more detailed outcome research is required to confirm the level of the factor which is necessary to produce the necessary care. It is hoped that Professor Mc Elnay's work will provide the necessary evidence.

TABLE 15

AGE DISTRIBUTION OF POPULATION OF SCOTLAND 1992									
	0 - 4	5 - 15	16 - 17	18 -29	30 - 44	45 - 59/64	60/65 - 74	75 - 85	over85
Scotland	6.3%	13.9%	2.6%	18.1%	21.4%	19.5%	11.6%	5.2%	1.4%
Borders	5.8%	13.1%	2.5%	15.9%	20.9%	20.1%	13.2%	6.6%	1.8%
Central	6.1%	14.0%	2.8%	17.9%	21.6%	20.1%	11.3%	4.9%	1.2%
D and G	6.0%	13.5%	2.6%	16.4%	20.3%	20.9%	13.2%	5.7%	1.5%
Fife	6.5%	14.3%	2.5%	17.7%	21.6%	19.1%	11.8%	5.3%	1.3%
Grampian	6.4%	14.0%	2.6%	18.5%	22.8%	18.7%	10.6%	4.9%	1.4%
Highland	6.4%	15.0%	2.7%	16.9%	21.7%	19.8%	11.1%	5.0%	1.4%
Lothian	6.3%	12.6%	2.4%	19.4%	22.3%	19.0%	11.4%	5.3%	1.5%
Strathclyde	6.5%	14.2%	2.6%	18.3%	21.0%	19.6%	11.7%	5.0%	1.2%
Tayside	6.0%	13.4%	2.4%	17.1%	20.7%	20.0%	12.8%	6.0%	1.6%
Orkney	6.6%	14.5%	2.8%	16.0%	21.0%	20.2%	11.3%	5.9%	1.7%
Shetland	7.2%	16.0%	2.9%	17.4%	22.6%	18.1%	9.2%	5.0%	1.5%
Western Isles	5.9%	15.2%	3.0%	16.1%	19.2%	19.7%	12.1%	6.6%	2.2%

(from 1991 Census reported 1992)

It is emphasised that there is at present no authoritative research to indicate a precise factor to indicate the extra work, expertise and time involved. Therefore, arbitrary factors of × 1.5, ×2 and ×3 were used for comparative purposes. The result of using a factor of x1.5 to represent the increased care required appears in Table 16. The calculations are based on the following:-

- 38.4% of patients are over 60/65 or under 16.
- For a pharmacy dispensing for 2,000 patients per annum, 768 patients are in the specific age groups leaving 1,232 other patients between 16 and 60/65.
- With a factor of x1.5 these 768 patients represent 1,152 units of work (i.e. 1.5 × 768), whilst the 1,232 patients represent 1,232 units of work(i.e.1,232 × 1).
- This gives a total of 2,384 units of work.

- With a gross average capitation of £14.40 per head of population, this results in one unit of work representing £12.07 (£14.40 x 2,000 ÷ 2,384 = £12.07 per unit of work).

  The calculation for the gross income is as follows:-

- 768 (patients in the weighed age category) x the factor (1.5) x the unit of work capitation amount (£12.07) + 1,232 x the unit of work capitation amount (£12.07) = gross NHS income.

Thus, the gross NHS income of this pharmacy, where the weighted population was the same percentage as for Scotland as a whole would be:-

768 x 1.5 x £12.07 = £13,922
1,232 x 1 x £12.07 = £14,858
£28,780

TABLE 16

WEIGHTED CAPITATION ALLOWANCE USING A FACTOR OF X 1.5 AND AN AGE DISCRIMINATION OF UNDER 16 AND OVER 60/65						
Dispensings pa	Patients	Annual Gross Income based on Scottish average	Annual Gross Income based on Highland average	Annual Gross Income based on Tayside average	Unweight Capitation Allowance	Present System
10,000	1,000	£14,387	£14,410	£14,571	£15,000	£20,927
20,000	2,000	£28,780	£27,917	£28,943	£30,000	£37,004
40,000	4,000	£57,549	£57,645	£57,887	£60,000	£69,806

The figure is then calculated for Highland and Tayside using the same method. In the former the percentage of the defined specific population is 38.8% and the latter 39.8% (compare Scotland 38.4%). This results in a gross NHS income in Highland of £27,917 and Tayside £28,943 (see Table 16).

Similar calculations were carried out for pharmacies with 1,000 patients (10,000 items per annum) and with 4,000 patients (40,000 items per annum). The results are also in Table 16.

The calculations were repeated using a x2 factor and a x3 factor. The results appear in Tables 17 and 18 respectively.

TABLE 17

WEIGHTED CAPITATION ALLOWANCE USING A FACTOR OF X 2 AND AN AGE DISCRIMINATION OF UNDER 16 AND OVER 60/65						
Dispensings pa	Patients	Annual Gross Income based on Scottish average	Annual Gross Income based on Highland average	Annual Gross Income based on Tayside average	Unweight Capitation Allowance	Present System
10,000	1,000	£14,393	£14,493	£14,595	£15,000	£20,927
20,000	2,000	£28,797	£28,900	£29,017	£30,000	£37,004
40,000	4,000	£57,574	£57,784	£58,280	£60,000	£69,806

TABLE 18

WEIGHTED CAPITATION ALLOWANCE USING A FACTOR OF X 3 AND AN AGE DISCRIMINATION OF UNDER 16 AND OVER 60/65						
Dispensings pa	Patients	Annual Gross Income based on Scottish average	Annual Gross Income based on Highland average	Annual Gross Income based on Tayside average	Unweight Capitation Allowance	Present System
10,000	1,000	£14,3 91	£14,460	£14,682	£15,000	£20,927
20,000	2,000	£28,888	£29,001	£29,358	£30,000	£37,004
40,000	4,000	£57,566	£57,890	£58,476	£60,000	£69,806

The difference in remuneration is marginal where pharmacies have patients in the same national or local proportions. Even using a factor of x 10, this would be the case.

Some other weighting system using, for example, disease states or social conditions, which was more sensitive to the differentiation of patients needs will be required if any significant

income differentiation (based on expertise and intensity, complexity and volume of work involved) between patients treated is to be achieved.

If a differentiation of fees (i.e. a different fee for a different level of treatment), instead of a capitation payment, was used to reflect the suggested increase in care requirement of patients in these specified age groups, it is possible that a different result could be achieved. This is tested by using the following method.

Given that there were 54M dispensings in 1994/95, then the proportion of these dispensings in Scotland for the specified age group of under 16 and over 60/65 would be 20,736,000. This would result in 33,264,000 dispensings for the remainder of the patients (i.e.38.4% of 54M in specified age groups). There is an assumption that the proportion of patients in these age groups will generate the same proportion of dispensings

Using a factor of x1.5 for the increased care required for the specified patients would result in (translated into extra work with each dispensing):-

- 20,736,000 x 1.5 + 33,264,000 units of work.
- This results in a total of 64,368,000 units of work.
- and a global sum of £75M, a basic fee per unit of work of £1.12 would result. N.B. The average fee was calculated earlier in this Chapter at £1.34 (i.e. £72M ÷ 54M).

It has thus been demonstrated that the unweighted fee income for a pharmacy with 10,000 dispensing per annum (1,000 patients) would be £13,400 (i.e. 10,000 dispensings times an average fee of £1.34). The weighted version, with a factor of x1.5, would result in an income of £13,350 on average in Scotland for this size of pharmacy (The calculation follows the principles used in above).

The income for a pharmacy serving a 2,000 population (20,000 dispensings per annum) would be £31,000 and a 4,000 population (40,000 dispensings per annum) would be £79,720 compared with an unweighted income of £26,800 and £53,600 respectively. In carrying out the calculations for the Highland and Tayside regions the results were of a similar nature.

If the factor was increased to x3, the pharmacy with 10,000 dispensings (1,000 population) would have an income of £17,680 (against an unweighted fee income of £13,400), one with 20,000 dispensings (4,000 population) an income of £34,360 (unweighted fee income of £26,800) and with 40,000 dispensings (4,000 population) an income of £79,206 (unweighted fee income of £53,600).

Thus there is no significant difference between the unweighted income and a weighted fee using a factor of x3. This is to be expected, since when the weighting is based on the average (whether that be national or regional), then the amount available must be dictated by the fact that the national and regional total sum remains fixed.

The income from a pharmacy serving a population of 2,000 (20,000 dispensings a year) and one serving a population of 4,000 (40,000 dispensings a year) would alter by a similar proportion. The variation in others with a greater or less population in the specific age groups would also result in a similar proportion of the unweighted income.

Using a factor of $\times 2$ and a factor of $\times 3$ would result in a similar outcome since the weighting is based on an average basic fee and the amount available from the global sum remains constant.

If the main criteria of contractors was to increase the level of income for increased work and expertise associated with the specified patients then this could only be accomplished where a pharmacy dispensed for a greater than average (either national or local) number of patients in the at risk category; namely those over 60/65 and those under 16. Nationally these over 60/65 receive a greater number of dispensings per annum than any other age group. At present, the figure for localities is difficult to obtain. To simulate such an approach would require a complex study, possibly based on the work of Hirschfield and his colleagues [175] would be required. Also research into quantifying the increase in expertise and complexity of care compared with the present would also be required, if the results are to be credible and a reliable and acceptable factor determined.

However, if for instance, a pharmacy with 20,000 dispensings per annum, where 14,000 (70%) of these are for patients in the at risk category and using a factor for increased complexity of care of x3 the income would be £41,520 against an unweighted income of

£30,587. It follows, that pharmacies with a lower than average number in this category would have a large, compensating decrease in income if the maximum of the global sum was not to be breached.

A similar result would be achieved if the weighted capitation system described above. is used.

TOP DOWN MODEL THREE (THIRD VERSION)

In this version, the weighting of the capitation fee would be calculated to reflect the patients residing in designated deprived areas.

Professor Jarman, in the late 1980s carried out extensive and detailed studies [176] and [177]into the required enhancement of general medical services to meet the needs of patients in deprived areas. The definition of "deprived" was based on several social measures, such as mortality rates, morbidity rates, income per household, the existence of bathrooms in houses, ethnic minorities, elderly living alone and single parent households. From these and other measures, a factor for deprivation was calculated [177]. A separate Scottish study [178] produced a set of factors for areas in Scotland, based on similar social and medical indicators.

These studies established that, as a consequence of the deprivation, a more complex and intensive general medical service is required to maintain and improve the health of patients in such areas. General medical practitioners are now paid an enhanced capitation allowance in these deprived areas; the amount paid depends on the value of the Carstairs's Deprivation Factor [178] for a specific area.

As has been seen in the study of [175] an experimental method has been developed to identify pharmacies which serve underprivileged areas. It is by no means certain that these areas require a higher level of pharmaceutical care or accessibility to such care - as distinct from medical care - than other areas. It would, however, appear possible to define the pharmaceutical care required and using this method, identify areas which require enhanced pharmaceutical care.

At present it is, therefore, impossible to do other than give a general comparative picture by applying a similar formula to the remuneration of community pharmacies as to that for general medical practitioners.

If the standard capitation level was £14.40 per person, and a deprived area had a deprivation factor of x2, then the capitation level would increase to £28.80. Such a result would significantly increase the income of pharmacies in areas designated as deprived with a factor of x 2. There would be a consequent reduction in income in non-deprived areas unless the global sum was increased.

It is difficult to see how this would not necessitate an increase in the global sum, since it could not be argued that, because the need in such areas was greater, the need in non deprived areas would be less than at present. As a consequence the present income is not too generous. As previously explained the current fees and other payments are calculated in such a way to avoid an overspend of the global sum and are not related to the volume of work or expertise required for each dispensing. However, if such a reduction in income from each dispensing was to be contemplated then a revision of the NHS Regulations would be required (i.e. a new contract negotiated) since a unilateral reduction in income for each dispensing by the Secretary of State would almost certainly be challenged in law as an unreasonable act since the work involved would not decrease. Only the Government's value of it would. This would have to be justified and since the value in the first place is arbitrary it would be difficult to justify a reduction for factual reasons (see also Chapter 6, page 71).

However, it could be possible to arbitrarily set a normal capitation fee of, say, £12 instead of the arithmetical average of £14.40. This would result in all pharmacies, in other than deprived areas, suffering a significant fall in the current income. This fall would be greater than the fall which would result from the application of a non-weighted capitation fee of £14.40 (see above) when compared with the present system. It is possible that in such a situation a number of pharmacies, which are currently viable, would become unviable and cease to trade. Some, of course, would be able to continue to trade by a cross subsidy from non-NHS income. Such a situation, however, is against one of the main criteria of an acceptable remuneration system.

A basic figure of £12 would release £12M (i.e. £2.40 x 5M population) which could be distributed to the pharmacies in deprived areas, by increasing the basic figure of £12 by an appropriate factor.

It has been suggested that such a policy would work if the number of contracted pharmacies in Scotland was considerably reduced, while retaining the current level of the global sum [109]. In such a case the impact on the incomes of the pharmacies may not be so great, but it still would not greatly improve the net income of those in the non designated areas. However, it would likely result in a higher proportion of pharmacies being in deprived areas which would in turn put pressure on a fixed global sum.

A figure weighted to take account of the extra care required to improve the service to patients in deprived areas, therefore, does not seem viable unless the global sum was enhanced or a radical new contract was negotiated and expressed in a new set of NHS Pharmaceutical Regulations.

DISCUSSION ON TOP DOWN MODEL THREE (SECOND AND THIRD VERSIONS)

1. Provided the resources allocated to the global sum were sufficient then neither of these versions of this model would meet this criterion. Those pharmacies which have a higher proportion of patients in the vulnerable age groups (version two) and in the deprived areas (version three) could with present resources recover the costs involved in providing the services specified. This would, however, result in others being in a worse position than at present. This in itself is not necessarily an impediment to the introduction of these versions of this model. However, it would lead to consequences such as the closing of some if not all of the affected pharmacies (putting in jeopardy the meeting of criteria 6,7, and 8), a reduction in the standard of service available from these pharmacies by their inability to meet criteria 2,3, and 4 or the requirement of these pharmacies to cross subsidy NHS services from non-NHS services (see criteria 7)
2. Only those pharmacies who benefited from these versions of this model would meet this criterion.
3. See (2) above
4. See (2) above
5. This criterion could be met.

6. See (1) and (2) above.
7. See (1) above.
8. See (1) and (2) above.
9. This criterion could be met if the services to be provided were clearly defined in the NHS Pharmaceutical Regulations.

TOP DOWN MODEL THREE (FOURTH VERSION)

This version of a weighted capitation model is based on the presumption that all patients do not require the same level of pharmaceutical care. The level required is related to the conditions and diseases being treated. It is well documented that in hospitals, the level of clinical pharmacy provided is proportional to the disease being treated [62]. Patients with different diagnoses (and, therefore, receiving different medicinal products) require different levels of clinical pharmacy input. The hospital pharmacy budgets pay some attention to this since the number and grade of pharmacists employed bears some relationship to the quantum of patient need. The present remuneration system in community pharmacy uses a payment system based on averages and to the number of dispensings carried out. Therefore, it does not give a greater reward to those community pharmacies which have a higher level of patients in the higher risk or needs category than the average. However, the system continues to reward more complex dispensing techniques and a greater numbers of dispensings, but not the more complex cognitive services. This is an anachronism since the number of complex dispensing techniques required of community pharmacies is now negligible [179].

This model would address this anomaly. In the community pharmacy environment, there is no substantive research in Scotland to measure the relative clinical pharmacy needs of patients with common ailments. However, there is research being undertaken in the USA. It is not translatable into the Scottish system because the research instruments used are not sufficiently common to enable this to done. From the experience in hospitals and from recent studies in the community it would seem that diabetes, hypertension and asthma patients require different and higher levels of pharmaceutical care, as do patients who have multiple pathology [180, 181, 182]. Patients on long term therapy may also require a greater clinical pharmacy input than those who have short term, self limiting diseases.

The research to provided evidence of degrees of difference between the pharmaceutical care needs, and the consequent resources to meet these needs, is not yet extensive enough to quantify the required increases. Research projects on evidence based medicine and on the outcome of providing pharmaceutical care are on the increase [183]. Therefore, this information may become available soon.

The bureaucracy involved in keeping track of patients with specified diseases without compulsory patient registration with one pharmacy, would be considerable.

It would be possible to devise a system which weighted the standard dispensing fee towards the more complex care needs. The Pharmacy Practice Division (PPD) of the Common Service Agency, which, in Scotland, codes and prices all prescriptions, has a record of all medicines dispensed in the community. The PPD uses the classification of British National Formulary (BNF) to code medicines according to their therapeutic use and can distinguish between proprietary and generic products containing the same active ingredients.

Consequently it would be possible, as a proxy for a targeted disease (such as asthma) to specify medicines which relate to the chosen diseases, and pay either a weighted prescription fee or a weighted capitation payment for the dispensings or patients treated respectively. The specific clinical pharmacy services, which have to be provided for such patients, would appear in the NHS Pharmaceutical Regulations in a way similar to the one in Ireland (Chapter 8). That an amendment of the current contract between the Government and the pharmacy contractors would be necessary.

A factor to indicate the increased pharmaceutical care which specified diseases or patients require is not, at present, available. Until such a factor, or factors, become available only speculative calculations can be carried out. The system being developed in Minnesota [184] to arrive at the work involved with different disease states may be capable of adapting to the Scottish service (see Bottom up Model One below).

In this model as an exemplar the diagnosis of asthma could be used. It is estimated that there are 300,000 patients in Scotland diagnosed as having the medical condition classified as asthma. It is also estimated that these patients receive approximately 30 dispensings per

year [185]. If it is presumed that all of these patients would require the same level of pharmaceutical care, and that each of the patients visit a pharmacy 12 times a year then, 12 x 300,000 premium payments would be required. (It is expected that the GP would assess each patient every month. Therefore a new or repeat prescription would be issued every month. If the patient was assessed more or less frequently the arithmetic would be altered but the principle would remain the same).

There are several ways this could be tackled. For example, asthma patients could register with one pharmacy only which would be paid a capitation fee for each patient receiving the service.

Another option would be to pay a premium on each item dispensed for these patients. That would result in 9M dispensings per annum, each receiving an additional fee.

If the method used was to increase the capitation allowance, and the increase in the annual capitation fee over the average unweighted allowance (of say an arbitrary chosen £15) was £5 then a sum of £1.5M would be required to finance this change (i.e. 300,000 x £5). Given the existence of the cash limited global sum, other fees and allowances would have to be reduced by whatever this amount was.

If the method was to pay a specific premium fee to the pharmacy each time an asthmatic visited the pharmacy, the fee would be £1.5M ÷ 12 x 300,000 = £0.42 per patient per visit over and above all other fees and allowances.

If the method chosen was to pay an increased dispensing fee, then this would be £1.5M ÷ 9M = £0.2 (20p). If the normal fee remained at 88p, this would give a fee for each dispensing for an asthmatic patient of £1.08.

No matter which method was chosen, only those pharmacies with a high proportion of asthmatics would benefit. All other pharmacies would lose to some degree.

The extent of the loss would, of course, vary but the standard fee would have to be reduced by approximately 3p (to 85p), or the professional allowance by approximately £1350 per annum to generate the £1.5M necessary to finance this model based on the

exemplar figures used. As previously referred to such a reduction would perhaps be required to be argued in a court of law, if the losers challenged the Secretary of State.

DISCUSSION ON MODEL THREE (FOURTH VERSION)

The first criterion could be met by the pharmacies who provide the higher level or more complex care required by the specified vulnerable patients. The pharmacies which have a lower proportion of such patients would not be able to meet this criterion. As with the previous versions of this model this is not in itself an insurmountable objection. It does, however, mean that all the other criteria (except number 5) would not likely be able to be met by the NHS pharmaceutical service as a whole. Therefore, it is a reasonable conclusion that there would be an improvement in the pharmaceutical care of the specified patients and/or in the treatment of the specified diseases the overall pharmaceutical care of the community would be of a lower standard than at present. This is likely to be unacceptable.

A general discussion and summary of how the criteria could be met for all of the versions of this model is to be found below.

TOP DOWN MODEL THREE (FIFTH VERSION)

This variation of a weighted capitation fee system identifies (as in Ireland) a group of "high tech drugs" associated with treatments which at present are only carried out in hospitals. The patients receiving these treatments require a high level of pharmaceutical care input and the products themselves are normally expensive. Expensive medicines cause problems for community pharmacists when the payment is delayed under the present system for up to two months and where there is no mark up to compensate for the outlay required to purchase them (see Chapter 3).

In this version of model three, patients who require treatment with specified "high tech" medicinal products would be given a certificate from the local health authority, as in Ireland (see Chapter 8). The patient would chose which pharmacy received his certificate. The pharmacy chosen would undertake to provide the prescribed products and would receive the normal dispensing fee, each time the product was supplied. The patient would remain

registered with the same pharmacy during the whole course of the treatment. The pharmacist would each month submit the patients certificates to the Health Authority and receive a capitation fee for each patient for every month the patient remained registered.

Each month the pharmacy would submit to the health authority the invoices and prescriptions for the products supplied. The invoices would be paid directly by the health authority. As the health authority is normally party to national contract rates for the products specified, in much the same way as national hospital contract prices are available a discounted price is likely to be obtained. With these particular products the price would be normally much less than the price available to community pharmacies.

The list of medicines would be constantly reviewed and the pharmacies randomly monitored to ensure that the specified clinical pharmacy services continued to be provided. (See Appendix 14).

The current list of products, the clinical pharmacy services and the criteria for selection of the products, which have to be provided would be similar to that in Ireland as at present (see Appendices 11 and 13).

It should be noted that the capitation fee paid and the cost of the products would fall on the hospital budget (i.e. the HCH budget in Scotland, see Chapter 2) and not on the global sum. The estimated saving on hospital pharmacy time in Scotland would probably enable a 'capitation' or retainer' allowance of £35 per month per patient based on the following calculation. It is estimated that there would be approximately 1,000 patients and 12,000 prescriptions for the medicines on the current Irish list [186]. The salary and the overhead costs which hospital authorities would incur in the mechanics of purchasing, storing and dispensing these would be of the order of £420,000 [187]. This gives a figure of £35 per patient per month as a capitation fee.

This version of this model has some if not all the limitations of this model. However, because it relies on resources other than those from the current global sum for successful implementation, it could be implemented in such a way that the effect on the nine criteria would be neutral. It would certainly meet the clinical criteria in Chapter 5 for the specific patients involved.

GENERAL DISCUSSION OF WEIGHTED CAPITATION AND OTHER FEES

All of the weighted capitation and other fee systems studied here are aimed at making the provision of pharmaceutical services more on-going and have the objective of bonding a link between the pharmacist and the patient. Such an on-going responsibility also, however, provides the opportunity for fees and other payments of a differential nature to be paid. These differential capitation or other fee payments could be targeted at patients who are at risk or patients with diseases or other circumstances which required a higher level of pharmaceutical care than was possible under the demands and restrictions of this present system. The age of the patient is an important criteria in this respect and it could be to the benefit of such patients if they were given a higher level of service than was currently available. Equally the Irish system of paying capition fees to pharmacists providing clinical pharmacy services to those receiving complex expensive medicines could improve and/or safeguard against adverse effects to the patients receiving such treatments.

Therefore, an assessment of weighted capitation fees or dispensing fees system is as follows (see Chapter 2, page 30 and Chapter 5, page 68).

1. The payment of weighted capitation fees or dispensing fees would necessitate the clear separation of payment for cognitive services and payment and reimbursement for the supply of products if it were to work sucessfully. Combining of these separate payment systems would not allow transparency in the fees for cognitive services. This could seem as an advantage.
2. If the fees were set at the correct level this criterion would be met.
3. If the additional care required by the chosen target group was measured accurately then this criterion could be met.
4. If (3) above was achieved then the professional staff could be given financial incentives to gain the desired clinical outcomes which were within the expertise of the pharmacist to influence. It has to be made clear that the payment of capitation fees or payments does not in itself make such incentives automatic. The payment of such fees does, however, give stability and predictability to income and, therefore, would encourage contractors to be more imaginative in the methods used to reward staff. Payment would not be solely dependant on the number of items dispensed.

5. Given accurate measurement of cost of tasks involved, this criterion could be achieved. If the rigid global sum continued to be arbitrarily set, it would not. This does not, however, imply that an upper limit on the resources allocated would not longer exist.
6. Since weighted fees would be related to patient need this criterion could be met.
7. Set at the right level (see 3 and 4 above) this criterion could be met. An arbitarily set global sum, however, could result in the need for subsidy from the non-NHS side of the business if the global sum was insufficient to meet the measured needs of the patients which were targeted.
8. Since the patients whose needs were targeted could be accurately assessed, it is likely that this criterion would be capable of being influenced in a positive manner.
9. This criterion could be met if weighted capitation fees or dispensing fees were introduced to meet a measured need.

As far as the clinical/patient orientation criteria is concerned, (see Chapter 5) a weighted payment system geared to patient need has the potential to meet these in a logical manner.

BOTTOM UP MODEL ONE

The model may seem very radical as it has been applied extensively in the USA to pay medical practitioners in the new concept of Managed Care. Research in the USA has reached a level where pilot schemes are being tested in Managed Care to pay pharmaceutical care practitioners in a similar manner [188, 189].

This system is a modern version of the tariff system used in the early days of the NI schemes in this country for the payment of medical practitioners, and also, in principle, to set variable dispensing fees for complex pharmaceutical procedures (see Chapter 2 and Appendix 1).

An extract from an early example of the general medical tariff system used in one part of England to pay general medical practitioners in the period 1912 to 1927 is given in Table 19. It is maintained by Hogarth[5] that this Manchester tariff was accurately calculated.

TABLE 19

THE MANCHESTER TARIFF SYSTEM (1912/27) FOR GENERAL PRACTITIONERS	
	Units
Consultation in surgery	1
Visit (normal hours)	1.5
Visit (urgent)	4
Night visit (9 p.m. to 9 a.m.)	4
Surgical operation with local anaesthetic	4
Administration of general anaesthetic	14
Setting of fracture or reduction of dislocation	14

A more detailed snapshop of this principle as applied to medical practitioners in Denmark is given in Appendix 22. A similar system was used in Sweden and elsewhere. It has not yet been used in these countries to pay pharmaceutical practitioners for the cognitive services they provide. In Denmark the document detailing all the medical treatments and their relative values runs to many hundreds of pages.

The system in the USA and referred to above is rather clumsily known as "Resource Based Relative Value Scale". The University of Minnesota and others have researched an application of the system to pharmaceutical care [150, 188]. It is based on the statement:- "The relative costs that an efficient medical and/or pharmaceutical practitioner would incur in providing a given specific medical or pharmaceutical care service if a perfectly competitive system existed".

It has also been extensively developed by the Minnesota researchers who have installed pharmaceutical care into a large number of community pharmacy services [188, 189]. These researchers have produced a Pharmaceutical Care Reimbursement Grid as part of the Minnesota Pharmaceutical Care Project (see Table 20) There are five levels of payment relating to patient need and the resources required to meet that need.

TABLE 20

PHARMACEUTICAL CARE REIMBURSEMENT GRID					
KEY COMPONENTS	LEVEL 1 [a] (0.4) [b]	LEVEL 2(1.0)	LEVEL 3 (1.8)	LEVEL 4 (2.5)	LEVEL 5 (3.0)
Workup of drug-related needs	*Problem-focused* 1-2 active medications	*Expanded problem-focused* (additional history required) 1-2 active medications	*Detailed* 3-4 active medications	*Expanded detailed* (additional history required) 5-8 active medications	*Comprehensive* >8 active medications
Pharmacists's assessment of drug therapy	*Problem-focused* 0 drug therapy problems	*Expanded Problem-focused* (additional patient information required) 1-2 drug therapy problems	*Detailed* 2-3 drug therapy problems	*Expanded detailed* (additional patient information required) 3 drug therapy problems	*Comprehensive*≥ 4 drug therapy problems
Care planning and follow-up evaluation	*Straightforward* 1 medical problem	*Straightforward* 1-2 medical problems	*Low complexity* 2-3 medical problems	*Moderate complexity* 3 medical problems	*High complexity* ≥4 medical problems

Contributory Factors

Nature of presenting drug-therapy problem (risk)	*Minimal* Self-limited	*Low* Transient in nature, good prognosis with appropriate drug therapy	*Moderate* Risk of morbidity is moderate, prognosis is uncertain	*Moderate to High* increased probability of prolonged impairment without appropriate drug therapy	*High* Risk of morbidity is high, High probability on severe prolonged impairment
Counseling and/or coordination of care	Counseling and/or coordination of care with other providers or agencies are provided consistent with the nature of the problem(s) and the patient's and/or family's needs				
Time guidelines (face-to-face time)	5 min	10 min	20 min	30 min	≥45 min
Reimbursement amount	$7.45	$18.63	$33.53	$46.58	$55.89

[a] Service level: [b] Resource-based relative value unit.

It is not a stand alone cost-plus system, since in some elements of private practice in the USA (i.e. with regard to the price of the product) a competitive price system does exist and the quantification aspects of the system has a basis in that competitive market. In the USA, the private competitive market sets the rates and costs used. This model is thus an attempt to transfer the consequences of such competition to the public service where a competitive system does not exist. The system of payment used in Minnesota has been accepted by the State Government, the Managed Care organisations and the relevant insurance systems already operating there [2].

The USA system uses four cost inputs, namely:-

(1) Time (quantity) - thc time of staff used before, during and after the service provided.

(2) Time ("intensity" or qualitative) which purports to measure the level of expertise involved.

(3) Practice Costs - the resources required to provide and deliver a service.

(4) Opportunity Costs - any additional education and training required.

If used in Scotland, the method would involve measurement "to the bone" of the above costs for a relatively simple, basic pharmaceutical care procedure. The hourly fee for the practitioner, would be a negotiated figure and be based on evidence from the private market. The basic standard and common procedure would be codified and be termed a Relative Value Unit (RVU). It would be given a value of one. It should be noted that input (2) above, includes the level of intellect, education and training (and its costs) required to carry out the procedure, and is measured in such a way as to transform it into a monitory value. There are apparently accepted formulae in the USA based on education psychology which can be used for this purpose [190].

Every other pharmaceutical care procedure, from the simplest to the most complex, provided and/or contracted for, would be examined and given a Relative Value Unit (RVU) which would be greater (or less) than 1. The same inputs would be used as above. These RVUs would then be codified. The pharmaceutical care code so far evolved in the USA, varies from an RVU of 0.1 to 75 with large, as yet unfilled, gaps. It is not only treatment procedures which are measured and codified. For example, diagnostic and health promotion procedures are dealt with in the same way.

Within this system, the practitioner would contract to provide care services which have specified codes, and would claim each month for the procedures carried out. A simple medical example to illustrate the point is as follows. If the basic RVU of 1 has a value of £20, and if the patient pays 20% contribution to his/her care and the practitioner carries out 10 procedures with a RVU of 1, 2 with an RVU of 10, and 1 with an RVU of 100, he claims.

(£20 x 1 x 0.8) x 10	=	£ 160
(£20 x 10 x 0.8) x 2	=	£ 320
(£20 x 100 x 0.8) x 1	=	£1,600
Total	=	£2,080

These figures expressed in sterling refer to medical procedure currently carried out in Managed Care in the USA expressed in dollars [150].

In Minnesota in 1994, the average payment for pharmaceutical care patient encounter was 12.14 US Dollars [188]. This has been accepted as an economic figure for the health care managers and the participating pharmacists. In medical practice, the surgical removal of part of the stomach by a consultant surgeon has an RVU of 100 [150].

In Scotland negotiations would be based solely on the hourly basic fee. There would be discussion between the parties when the RVU value of each procedure was calculated. However, it is estimated that the RVUs, once agreed, would only need infrequent reviews and updates.

In the USA, there is a strict and random audit of the medical services provided in order to dissuade the carrying out of procedures which are not appropriate, or the carrying out of treatment or care plans which are more complex than the condition of the patient requires. Penalties for inappropriate claims are severe, and fines of $20,000 have been levied [150]. Similar procedures have been adopted in the Minnesota project [188].

The system is only inflationary if there is an open ended budget. It the budget is fixed only those services which can be financed are contracted for.

Attempts could be made, in theory, to apply the system to the Scottish phamaceutical service. Certain assumptions would have to be made. For example, the application of an appropriate hourly rate for a pharmacist, with the required education and training for a given procedure would have to be negotiated or presumed. The work done in, for example, an asthma clinic run by a pharmacist (hospital grade F) and a pharmacist run

anticoagulant could be used to establish a RVU for these activities [87, 96, 191, 192]. In broad terms, the procedure would be along the following lines:

(i) the diagnosis and relevant clinical condition would be made known to the pharmacist;

(ii) the pharmacist would counsel the patient, select the appropriate drug and dose and

(iii) on second and subsequent visits, monitor the patients progress.

If the current hourly rate for the appropriate pharmacist (see above) was £15 and the other costs based on 15 minutes with the patient was calculated at £6, this could be used as RVU 1 and have a cost of £9.75.

Much more detailed work is required, however, if this system is to be developed.

There is no evidence that in the European countries which use this tariff system to pay medical practitioners, the precision is as acute as that now used in USA. It is thought that such precision would be required in Scotland, if such a system were to be acceptable to pharmacists.

No additional dispensing fees or allowances would be paid.

This model payment system is being increasingly used in the USA with success. It satisfies profession and patient need and in a factual way gives transparency to the acceptable level of reward given to the staff carrying out the procedures. It does require considerable accurate preparation of the time to carry out the complexity of each separate care process. If the services to be required are contracted to be provided and are related to the financial and other resources available all the "business" criteria (see Chapter 2, page 15) and the patient centred criteria (see Chapter 5, page 55) are capable of being met. If, however, the arbitrarily set global sum philosophy remained in place to satisfy criteria 5 on page 15 then the system could result in the loss of confidence of patients since their expectations of improved care would not be met or the pharmacists would likely have to provide services at a loss or have to subsidise them from the non-NHS part of the business.

In summary the criteria proposed in Chapter 2 are discussed as follows:-

1. If the resources were allocated to provide specified pharmaceutical care activities and no others this criterion would be fully met.

2. Equally with the necessary resources this criterion would be met.

3. There is no doubt that this criterion would be met.

4. Equally with the required resources this criterion would be met.

5. Provided only the services contracted for were provided and others only provided outside the NHS, this criterion would be met.

6. This criterion would be met as far as the NHS services were concerned. However, if there were many services outside the specified NHS services then some patients in rural areas may find difficulty in finding a pharmacy to provide these services.

7. This criterion would be met.

8. This criteria would be met but non-NHS services might be less well catered for.

9. This criterion would be met.

All the clinical criteria in Chapter 5 would, in theory, be met.

This is an attractive model as evidenced by the fact that it has found favour in the USA by the profession and the State Legislatures, where a fully comprehensive pharmaceutical care service is provided. Further research should be carried out in the UK to assess its suitability for Scotland.

BOTTOM UP MODEL TWO

PREAMBLE

The system used in Scotland to set the fees and allowances of general medical practitioners uses a principle termed "target income". This is a method whereby a target income is determined by Government on the advise of the Doctor and Dentist's Review Body [193]. This target income is then accepted by Government as that which all GPs should achieve in the relevant fiscal year. It is intended as average net income, therefore some will, in effect, receive more, others less. The fees and allowances paid to GPs are then constructed in such a manner that the overwhelming majority of GPs achieve it. The fees and allowances paid include capitation allowances and other fees for items of service. This approach has never been attempted for pharmacy.

This model investigates how a target income could be set for pharmacies serving defined populations as is the case with GPs.

The resources agreed to achieve the target income (i.e. average net income) would be paid out as equal monthly sums or in the form of capitation fees and allowances as well as item of service fees in a similar way to that currently used to pay GPs. It would, however, be paid to the pharmacy contractor (i.e. the "business") and not as is the case with GPs to each individual member of the GP's practice.

A gross salary for the pharmacists involved of £30,000 is used and the effect of a salary of £40,000 and £45,000 is also tested in the variations of this model (the gross salary includes employer's costs). These salary levels have been used whether or not the owner is one of the pharmacists involved in providing the service. These are based on the salaries set by the Government for hospital pharmacists with similar responsibilities. The 6% net return on capital invested in property and in stock is the figure which NHS Trusts are currently required to use. If the current figure of 6% was altered in the future, pharmacies would continue to use the figure determined for NHS Trusts (see Chapter 6, page 71).

Three variations were explored in this study. The first is where pharmacies on average serve approximately a 5,000 population; the second is where the population served is 10,000 and, where the population served is 15,000 as in Denmark. However, the financial outcome of the latter options are not persued in detail in this thesis. At present, there are approximately 1,100 NHS contractor pharmacists in Scotland, each, on average, servicing a population of 4,550 [194].

Certain assumptions are made in calculating the theoretical consequences of this model and appear as Appendix 23.

BOTTOM UP MODEL TWO (FIRST VARIATION)

This variation is based on there being 1,000 registered pharmacies in Scotland with NHS contracts (c.f. current figure of 1,100 approximately)

It is also based on the fact that, on average, each member of the population receives 10 dispensings per annum [194], a pharmacy currently carrying out 50,000 dispensings per year will be covering on average a population of 5,000. It is assumed that the mix of population will be as the current census distribution as to age and sex with each member of the population, visiting the pharmacy 10 times per year for prescription medicines.

For the purpose of this model only, it is presumed that each member of the population will also visit the pharmacy 10 times per year for advice, and for the purchase of P and GSL medicines.

The pharmacist will spend 5 minutes with a patient on each visit with a prescription and 2 minutes with a patient on non NHS visits. This figure is based on minimal research evidence [195]. It however is low compared with NHS hospital [96] experience and experience in Minnesota [184].

In the case used in this model, the patient will also occupy 10 minutes of a certificated counter assistants time. This figure is accepted by the profession based on evidence gained when the RPSGB was producing protocols for the behaviour of counter assistants in contact with patients [196]. More research requires to be done to confirm the figure. Some

patients will require longer and others less time. However an average of 10 minutes is based on a published study [195]. This study, however, is not broad or extensive enough to be certain that these figures are sustainable.

Using these figures would result in 50,000 x 5 minutes = 250,000 minutes per year of pharmacist's time for prescribed medicines, and 100,000 minutes per year of pharmacist's time for what are at present non NHS visits for advice and for the purchase of P and GSL medicines. There will also be 50,000 x 10 minutes of a certified counter assistant's time. Clearly more research needs to be done in respect of time spent with patients. These times are based on the best evidence available at present. This no "appropriate" or "standard" time for each patient.

However, the purpose of this study is to look at the feasibility of this and other models and not at their exact costing. It concentrates on investigating the elements in such costing which should be included in order to give a template for further studies.
The above calculation results in 350,000 minutes per year = 5835 hours for pharmacists and 8330 hours of counter assistants. This latter figure equates with a staff of five counter assistants.

i) On the basis of 40 hours per week, the above figures requires 145 weeks of a pharmacists time.
ii) If emergency duty is included at 16 hours per week, this adds 21 weeks to the annual total. This is the time spent by a pharmacy open to provide rota services.
iii) Thus a total of 166 weeks pharmacist's time is required.
iv) A pharmacist works 46 weeks per year.
v) Therefore, to meet this commitment, three whole time equivalent pharmacists are required plus 1 pharmacist per year for locums to cover for sickness and holidays.
vi) Salary costs are therefore:-

£120,000	for four pharmacists
£ 15,000	for one technician
£ 6,000	for one student technician
£ 600	for one pre-registration student
£ 50,000	for five counter assistants
£ 5,000	for secretarial, accountancy etc.
£196,600	

(NB Only 60 pre-registration students are in post in community practice in Scotland at any one time. This gives an average cost of £600 per pharmacy. However, those who employed a pre-registration student would receive the full £10,000 of salary costs) [197].

vii) Other income is based on the following assumptions :-

6% return on capital invested (£250,000 for property and equipment)	=	£15,000
6% return on capital invested in stock (£15,000)	=	£ 900
Costs of other overheads (heating, lighting, etc.)	=	£ 5,000

viii) This gives in total "target income" requirement of £217,500 per pharmacy per annum.

ix) With a population of 5M there would be 1,000 pharmacies.

x) This gives a requirement of a total sum of £217,500,000.

xi) These costs and the estimated time spent with each patient are normal in the hospital service, and the other NHS costs are those used in other NHS services. It is unlikely their validity could be disputed in the hospital context [62].

xii) However, since the NHS component of the proposed target income is 70%, then the total NHS requirement for community pharmacy would be £152,250,000.

xiii) This compares with the current £75M global sum (i.e. an increase of £77,250,000).

xiv) Under this arrangement each pharmacy would have to gain a profit of £62,250 per annum on non-NHS business to reach the target income of £217,500 pa. This implies a 35% mark up on a gross sales figure of £186,428 per annum or £15,335 per month, these would, of course, be private non-NHS sales. Information received confirms that this figure is achievable [198]. If the pharmacy is to remain in business then those who invest in it require a "target" income or they will invest in something else. It is emphasised that community pharmacies are retail businesses first and foremost. They are defined as such in law [199].

xv) The drug bill has been rising at a rate of 12% per annum in cash terms [200]. It is likely that this level of pharmaceutical service would not produce a fall in the drug bill. From the experience in hospitals, the efforts of community pharmacy could

reduce projected increases by as much as 10% [201, 202, 203]. These studies confirm those by Strand [204] in USA where pharmacists choose the most appropriate formulations, dosage and length of treatment and minimising adverse events (which are all part of pharmaceutical care) such savings are not only possible but could be at the lower end of what is achievable. This would make available approximately an additional £45M available for pharmacist's remuneration. If community pharmacy received, as a reward for their efforts, £25M of this, the increase in the global sum required to service this level of care would be £52,250,000 (i.e. a total figure of £127,250,000 against the current £75M).

xvi) Such a service would require 4,000 pharmacists in Scotland working in 1,000 community pharmacies. This is clearly impractical in the short to medium term at least, since the total number of pharmacists residing in Scotland at present, is 3,500 and only 2,500 (1,870 WTE) are engaged in the community pharmacy practice [205].

(i) If the "salaries" were £40,000 pa this would increase the target income for each pharmacy to £247,500 pa and if it were £45,000 the target income would be increased to £262,500 pa with consequential increases in total resources required.

(ii) There would be a significant decrease in all above figures if the pharmacist devoted only 2 minutes to each visit of a patient who required an item to be dispensed. The implication here is that the professional pharmacist would be prepared to relate the time spent with patients to fit the cash resources available for the service. The reduction effected is detailed in paras (iv) and (v) below.

(iii) The hours a pharmacist was available would be reduced significantly, and only two whole time equivalent (WTE) pharmacists per pharmacy would be required including cover for sickness and holidays. Nationally, this would require 2,000 pharmacists, which is not significantly different from the current situation.

(iv) The target income would, therefore, result in the following:-

Salary Costs

2 x £30,000	=	£60,000	2 pharmacists
	=	£15,000	1 technician
	=	£ 6,000	1 student technician
	=	£ 600	1 pre-registration student
	=	£50,000	5 counter assistants
	=	£ 5,000	secretarial, accountancy etc.
	=	£136,600	

6% return on capital invested (£250,000 for Property and equipment)	=	£15,000
6% return on capital invested (in stock £15,000)	=	£ 900
Costs of overheads (heating, lighting etc.)	=	£ 5,900
		£20,900

(v) This gives a target income for each pharmacy of £157,500 and a national total of £157,500,000 gross.

(vi) With a 70% NHS contribution, this results in a NHS total of £109,259,000.

(vii) It follows that NHS target income would be £109,250 per pharmacy, excluding £48,250 profit from non NHS services. The latter would require annual gross sales of £137,859 pa or £11,488 per month. This would come from private non-NHS sales of medicines. This is apparently achievable [198].

(viii) This total figure of £109,250,000 is an increase of £34,259,000 on the current global sum.

(ix) There is evidence from the hospital service and from the USA [204] that an increased level of pharmacy care service would result, in this case, in a 7.5% "prevention of increase" in the drug bill [201]. This equates to a saving of £33.75M. If the global sum received £20M of this, then the net total increase in the global sum would be just over £14M.

Other options would be to accept that counter assistants only need to give 5 minutes or 2 minutes to each patient visit. This would result in a reduction of the increase on the global sum to a figure of £27.25 M (rather than £52.25M) and an increase of £12.25M (instead of £52.25M) respectively (see above). In the second example, the increase in the global sum would be nil for 2 minutes per patient and a reduction in the global sum of £10.25M or (to keep it at £75M) a contribution from drug bill savings of only £10M (instead of £20M). It would be argued that the time spent by counter assistants and pharmacists on consultations that led to the sale (or rejection of a sale) of over-the-counter (OTC) medicines, the costs should not fall on the NHS budget. In that case the increase in the global sum would be in the order of £35M gross without a contribution from any savings achieved on the NHS cost of medicines. Against that it could be argued that since OTC treatment of patients is a positive contribution to the NHS and as such the salary and other costs associated with the sale should fall on the NHS budget (see above).

It should be noted that this scheme for pharmacists would be different to that for GPs. The latter sets a target income for each GP in the practice, whilst the former sets a target income for the business. This approach was used since it is the business which is contracted to provide an NHS service and not the individual practitioners within it.

BOTTOM UP MODEL TWO (SECOND VARIATION)

A variation could be based on only 500 pharmacies in Scotland. That is one pharmacy per 10,000 population. This ratio is quite common in Europe. Indeed, it is low compared with Denmark, Norway and Sweden, where pharmacy has virtual monopoly of the sale and supply of medicines (see Chapter 6 and 9). This variation is different from the first since it implies a halving of the number of registered pharmacies with NHS contracts, whereas the first variation uses approximately the same number as at present.

The total costs would be the same as in the various options in the first versions, and unless an economy of scale resulted in reduced overhead costs, the target income would be doubled from that in the first versions. One economy of scale which would not apply is that the suggested time which staff would spend with patients would remain the same (i.e. 5 or 2 minutes for the pharmacist and, 10, 5, or 2 minutes for the counter assistants).

This model would allow teams of 4 to 8 pharmacists per pharmacy to operate the service depending on the version of the model adopted. There is a possibility that such an arrangement would increase specialisation and expertise which could improve the care of patients. The model could also, on hospital related evidence, reduce the unit costs of the drug bill. It would also enable pharmacists to be away from the pharmacy to visit patients at home and the GP surgery, one or more could conduct pharmacy led clinics. These 4 to 8 pharmacist could be employees or partners in the practice.

Even allowing for the constraint imposed by the current global sum, such a system of payment is not an impractical objective. There would be, as yet, unquantifiable saving in Pharmacy Practice Division costs since fees and allowances would not require to be calculated if the payments were made in equal monthly amounts. Also the system would be easier to administer and for the contractors to understand if the target sum was disbursed by equal monthly sums in arrears.

There are very many elements which could result in increases or decreases in the average target income received (e.g. the capital invested and the cost of overheads). A payment system based on this model, would require a more rigid, planned distribution of pharmacies than currently exists.

It would be argued by the Government that this is a return to the discarded "cost plus" system. There is an element of truth in this, except that the criteria in this model is based on current NHS, HCH salary costs and NHS determined return on the capital invested. This leaves only overheads as a measurable and negotiable heading. This was not the case with the previous "cost plus" contract (see Chapter 7).

The system would also allow local negotiations of salary and overhead costs, the former equating with the salaries paid in local hospitals if this was deemed to be desirable.

The system would be designed to pay the actual costs incurred by the business for NHS purposes, it should be easy to defend on a public funding basis, as the costs used equate to costs used in determining the finances of other primary and secondary care sectors.

The remuneration and care provided would not depend on the number of prescriptions dispensed.

As with medical practitioners the target income could be disbursed by means of capitation fees and allowances for specific purposes instead of an equal monthly installment. It would still result in some pharmacies getting a higher profit than others if they contained costs below the agreed level. However, by declaring the "target" income at the beginning of the fiscal year would give the necessary stability to the business. The model would require a very detailed knowledge of the procedures to be carried out, their costs and a very rigid patient registration policy. This would require considerable work and could negate the savings which it would be necessary to achieve to make the system affordable in the present climate. This latter fact should not be taken as a dilution of the possible benefits of this model. The fact that an academic study should not if at all possible be diluted by expressions of the practicalities found in the real world has to be put in the context that if this model were to be successfully implemented it would have to be affordable or the Government would not accept it as viable.

There is little doubt that the system has the potential to meet all the criteria set out in Chapters 2, page 30 and Chapter 5, page 68. It is essentially about giving the business of community pharmacy confidence to plan ahead and to concentrate on improving the care given to patients and to assist in saving money on the drug's bill.

The down side in the short term is that considerable research would have to be done to correctly assess with some accuracy the time which the various pharmaceutical care processes required to take. In some respects this work is similar to that necessary before bottom up model one could be introduced.

It would seem, therefore, that such research should be given a high priority by the profession and the Government since it would appear to be fundamental in determining the feasibility of introducing a more transparent remuneration system.

In summary, therefore, the criteria used in this study are considered for this model as follows:-

Both versions of this model are compared with the set criteria.

1. This model, by definition, would meet this criterion provided the cost of salaries and overheads were realistic and related to those actually incurred. In the public interest a mechanism would have to be used which ensured that those costs were not overgenerous.
2. This criterion would be met - see (1) above
3. "
4. "
5. "
6. "
7. "
8. "
9. This criterion would be met - see (1) above provided the time involved in the various processes of pharmaceutical care had been previously well researched.

The clinical criteria in Chapter 5 would be met provided the action suggested in item (1) and (9) above was taken.

This model has many attractions and deserves further detailed study.

BOTTOM UP MODEL THREE

This model has been discussed in certain circles and has been worked up in confidence by Government advisors but it has never been published or discussed in public. In the terms of this study is bottom up since the contracted pharmacists themselves would set the fees and allowances.

This model would involve removing all prescription charges and would pay the contracted community pharmacists no fees or allowances from Government funds. The contractors would be reimbursed the true wholesale cost of the products dispensed plus a notional oncost or mark up to cover the costs involved in purchasing, storing and distributing the products on behalf of the NHS.

The first exemplar would be to use an arbitrary 5% mark up on the notional NIC. This would require a total global sum of £18M based on a NIC of £450M (1994/95 figures) (i.e. a pharmaceutical budget of £468M instead of £450M).

Another method would be to use as the oncost or mark up a fixed add on percentage to whatever was the current official bank rate. Using a figure of 2 percentage points above the end of 1997 bank rate of 7%, would give a mark up of 9%. This would require a global sum of £40.5M. This sum and that used above is considerably less than the current figure of £75M (approximately).

The NHS contracted pharmacies would set their own fees, and the patients would be required to pay these directly to the pharmacy. Those patients who, at present, have to pay prescription charges would no longer have to do so. They would, however, have to pay the fees set by the pharmacies.

There would be a saving of £57M or £34.5M respectively on the global sum with a mark up of 5% or 9%. Counter to this, the Government would loose £55.37M in prescription charges (i.e. only on 20% of dispensings is a prescription charge paid) [206]. In the reference year (1994/95), there were 51M dispensings, therefore, 9.8M dispensings would command a prescription charge of £5.65. This gives the figure of £55.37M.

If the pharmacies charged the current average dispensing fee, it would be £1.34 per dispensing, based on the figures for the reference year. 40.8M of the 51M dispensings are exempt prescription charges. It is likely that some or all of the patients who are currently exempt prescription charges would either not need to pay the pharmacist or recover that which they paid. If all those currently exempt continue to be exempt, it would cost the Government £59.97M to reimburse them for the fees charged by the pharmacists.

Thus this system would cost the Government a gross figure of £59.97M plus £18M (see above) or £59.97M plus £40.5M (see above). Both sums are over the current global sum of £75M if the 5% or 9% mark up respectively was used.

Even if no mark up was awarded the system would cost the Government an increase of £40.34M. (i.e. a loss of £55.37 on prescription charges plus £59.97M to reimburse those currently exempt from prescription charges against a current global sum of £75M).

To recover this amount and return to the level of the current global sum budget, competition which resulted in a fall in the total average level of fees charged by pharmacists would be required. A reduction of 79p on average (i.e.£40.3M ÷ 51M dispensings) would be necessary. This would leave a total average fee of 55p per dispensing against the average of £1.34, in the exemplar year.

It is not known whether very large pharmacies would remain viable if they received a gross average fee of 55p per dispensing with or without mark up on the cost of the products supplied nor is there an easy way to find out. It is unlikely that the small to medium sized pharmacies could survive in their present numbers, or be able to carry out a similar type of business as they do at present.

Only a small proportion of patients pay a contribution to the cost of their medicines. Under this system the medicines would be free. The patient would, however, be asked to pay the pharmacist's fee direct to the pharmacist or have it paid on his behalf by the NHS. The present prescription charge goes towards the cost of drugs and not towards the pharmacists fees [157]. The effect on patient behaviour as a result of paying the pharmacist's fee instead of the prescription charge is unknown and has never been researched. However, since the patient would have to pay the fee to get the free medicine published research on elasticities of demand would apear not to be useful in coming to a view of the effect of such a change on the NHS system for the reasons discussed below.

There have been several economic based studies on the price elasticity of the utilisation of health care in relation to the effect of the charge placed by Government on the dispensing of prescription items [207, 208]. These studies state that the apparent or main justification for charges imposed on NHS or insurance patients is their revenue raising potential, particularly when applied to prescription drugs. The study by Hughes and McGuire [209] and an earlier study by O'Brien [208] emphasises this point and maintains that the figure used to assess the price elasticity requires to be accurate in order that when there is a policy to increase prescription charges, an accurate forecast of the potential revenue increase can be

made. However, one other significant reason for prescription charges being imposed is to reduce demand for medicines on prescription which could be purchased from pharmacies of those medicines which are in the Medicines Act [210] classification of "P" ("pharmacy only") and/or GSL ("general sales list" medicines), at a lesser price than the prescription charge. None of the papers published in the United Kingdom and studied here seem to accept this point or take it into account in deriving the economic models used to calculate price elasticity in this area. Hughes and McGuire [209] attempt to improve on the model suggested by O'Brien [208] particularly with regard to taking into the equation an allowance for co-integration. Their study uses as one of the variables the number of GPs per 100,000 population. That would seem to be irrelevant as an issue as the model under consideration in this study is solely related to the pharmaceutical care provided by community pharmacists. Also the economic model of Hughes and McGuire has as another variable substitution possibilities. The authors state that "we suspect substitution possibilities are limited". It is contended in this study that that would not be the case in the provision of pharmaceutical care in that the pharmacist could alter the product and the dosage if in his professional judgement these would not be appropriate for the particular patient. The current Medicines Act [210] makes provision for this in a limited manner in specified circumstances. In theory, the provision could be extended and is common practice in NHS hospitals.

In this model in this study the patient would receive the medicines prescribed free. Therefore, price elasticity is not an issue in itself as related to the price of the product. Here the price elasticity would be in the cognitive services provided by the pharmacist. There is no concrete evidence that patients would not be able to distinguish between the current prescription charge and a new charge for specific defined pharmaceutical services. The medical equivalent would be perhaps if a change was made in the fees GPs are paid where the patient was in future charged for that provision of a diagnoses and their dispensed medicines were issued free of prescription charge. It is doubtful if price elasticity of the former would influence directly the uptake of the latter in these circumstances. Certainly the price elasticity of pharmaceutical care charges would need to be studied to ascertain its effect on health care uptake as would the price elasticity of charges for diagnoses. There is no reason, however, to presume that the price elasticity factor calculated by Hughes and McGuire for prescription charges would directly apply in the pharmaceutical care model.

In the Hughes and McGuire study referred to above, the authors indicate that when the prescription charge in 1992 of £3.75 per item was increased in 1993 to £4.25, revenue was estimated to increase by £17.3M and that this was offset by a decrease of 2.3M in items dispensed. The study seems to imply that the increase in the prescription charge was the sole cause of the latter. No account seems to have been taken of the fact that in the year in question the Indicative Prescribing Scheme was introduced with rigour and that that first effects on prescription numbers of GP fundholding were beginning to be felt (see Chapter 6). In the circumstances it seems naive and/or defective reasoning to imply that the decrease in prescription items dispensed was solely or directly related to the increase in the prescription charge without further detailed analysis of the other contempory factors mentioned above. The detailed USA studies on pharmaceutical care indicate that other economic benefits such as reduction of adverse events relate the use of medicines, reduced drug usage and quicker return to normal health resulted and that patients responded to these benefits by paying for hitherto non-chargeable pharmaceutical care fees [184].

In theory, this model would appear to be able to fulfil all the business criteria (see Chapter 2, page 30) and the patient-orientated criteria (see Chapter 5, page 68). However on closer examination this is unlikely (see below). It would also appear that by forcing the patients to pay the pharmacist for the professional services patients would be more discerning in choosing the services which they thought would be of benefit to them. The elasticity of demand would then give an indication of those pharmaceutical care services which patients valued. The same, of course, could be said of medical care services available from GPs and the NHS has not chosen to introduce such a method of payment in the GP service. It is presumed that the reason for this is that patients may chose not to have services which they need because of a reluctance or an inability to pay for them. The same argument holds good for required pharmaceutical care procedures (see above). Another major flaw is that only 20% of the patients would be required to pay directly for such services. This would cause some logistical problems in reimbursing the remainder or paying the pharmacists for the services provided to exempt patients.

In summary, therefore, a comparison with the criteria and this model is as follows:-

1. It is unlikely that this criterion would be met unless the competition on the fees set by individual pharmacies was closely monitored and was able to be held at a level that made all pharmacies, which the NHS required, able to exist financially.
2. This criterion would not likely be achieved by all pharmacies.
3. This would not be met unless the fee level was sufficient for all the required NHS pharmacies and not just for the large multiples.
4. The same applies to this criterion as applies to (1), (2) and (3) above.
5. It is possible that this criterion would be met.
6. It is not by any means certain that this criterion would be met.
7. It is unlikely that some pharmacies would have to cross subsidise.
8. It is doubtful if this objective would be met.
9. This criteria is likely to be met.

The patient centred criteria in Chapter 5, page 68 would only be met if non-exempt patients were prepared to pay the price set by pharmacies and the Government be prepared to compensate non-exempt patients who choose to have such services. Also there would be some patients who had access to such services in one area at a lower or higher cost than in other areas if pharmacies decided to compete for the prices of such services. It is unlikely that the public would accept variations on the price of NHS services for a long period. Any positive effect of competition would eventually be lost.

BOTTOM UP MODEL FOUR

This model attempts to reconcile the two elements of community pharmacy remuneration, namely payment for the supply of products and payment for professional and cognitive services (including dispensing). This concept is not new and existed when the NHS came into being in 1948 (see Chapter 7).

It uses the principle of the separation of these two elements, then adapts it to the more modern concept of cash limited global sums within which the remuneration for services must be reconciled.

It suggests the radical step of establishing two global sums to replace the current one. The first of these would be the present sum allocated by Government to finance the drug bill. It

would create a new one to finance the professional and cognitive services which have already been introduced to the primary care pharmaceutical services and accommodate the newer services, which have been proposed by the profession and by the Government. There is a precedent to this proposal. The remuneration of dispensing doctors for the activities associated with dispensing comes from the Primary Care medical budget and not from the Primary Care pharmaceutical budget. The cost of the products which they prescribe and dispense falls on the latter.

The model is based on an acceptance that the largest multiple pharmacies receive a greater discount on products purchased than the current discount evidence would indicate. The present discount enquiries treat every pharmacy as equal and do not distinguish between those who are independent and those who belong to vertically integrated companies. In these latter companies the wholesale arm, not the retail arm, receives large discounts on volume purchases. Under the present arrangement the retail arm notionally receives a similar discount from the wholesaler as those pharmacies who are not part of a vertically integrated company, and it is the retail arm of this type of company which is included in the statistical sample used in discount enquiries.

In Scotland the present discount (1997) is just over an average of 7% on total NHS national purchases. The result of the last discount enquiry would indicate a higher figure, but this was abated to account for some of the costs which are incurred by community pharmacies in searching out and obtaining the discounts [211]. If the discounts received by the wholesale arm of the vertically integrated companies were taken into account, it is estimated informally by those who carried out the enquiry that an average figure of 12% could safety be applied. That is an increase of approximately 5%.

Hospital pharmacies, through the use of national and area contracts, receive much lower prices than does the average community pharmacy. It is, however, accepted that they incur costs in the purchasing exercise (including the procedures associated with competitive tendering) and in storing and distributing the products. It has been estimated that these costs are approximately 10% of purchase price [212]. The discounted price, paid by community pharmacies, at which they are reimbursed include these costs. The CSA [212] has concluded that the outcome price is not statistically different in the two sectors, particularly if specialised products such as general anaesthetics and oncology products where there is a

high use in hospital but virtually none in the primary care sector at present, were removed from the equation.

It is theoretically possible that the NIC of products (i.e. the drug bill), supplied under the Primary Care budget by community pharmacies, could be reduced by a further 5% if a 12% average discount rate was applied. This would reduce the NIC from an exemplar £450M to £427.5M, a saving of £22.5M.

From the reasoning above, it would seem acceptable to pay community pharmacies an oncost or mark up of 10% of the £427.5M to cover the costs of the purchasing exercise (including competitive tendering) and the storing and distributing of these products by the normal retail method. This figure may be lower than the normal mark up in the comparable retail trade, but in serving the NHS there is little commercial risk and there is virtually no bad debt or other cost bearing factors involved. If this were done, then the true NIC of the Primary Care "drug bill" would become an exemplar £470.25M. This is an increase of £20.25M over the present exemplar figure. That represents a very small increase in the standard rate of income tax on a Scottish basis or a small increase in the total NHS costs. It would also restore in part the estimated loss of £15M on the 1981/82 pharmacy remuneration budget (at 1976 prices) (see Chapter 7).

For this to work, an average discount figure of 12% would have to be enforced. Even if, as at present, a sliding scale was used, it is likely that the smaller but efficient pharmacies would have imposed on them the recovery of a discount level which they could barely achieve. If after extensive enquiries this proved to be the case, an alternative means of allocating the average discount recovery would be investigated. For example, independent pharmacies and multiples with say 50 or less outlets would be subject to an average recoverable discount of 10%. A sliding scale related to cash volume of purchases would be used. Those, for example, with 51 or more outlets would be subject to an average recoverable discount of 15% on a sliding scale on the same basis as the first group would be used. The effect of alternate variations on this theme could be pursued. The object of each would be to ensure a national average figure of 12% or whatever was imposed.

The exemplar figure of the Primary Care cash limited "drug budget" (global sum) would become £470.25M. It could be transferred and become part of the Primary Care medical

budget (see Chapter 3) since it is the medical, and to a much lesser extent the dental profession which spends this budget by making treatment decisions. It is not at present spent by the pharmaceutical profession. If it was still entitled the Pharmaceutical Primary Care Budget, it would not be virable with the proposed new Pharmaceutical Care Budget. This latter would also be cash limited and be used solely to remunerate pharmacists for their professional cognitive services, including those involved in dispensing. This equates with the fees for dispensing doctors falling upon the Primary Care Medical budget and not upon the Pharmaceutical Primary Care budget. It is, in effect, a global sum. It differs from the present one since its purpose is transparent and could be related in an obvious way to the pharmaceutical services provided and not as at present to only the number of items dispensed.

The second global sum, in the exemplar sense, could continue to be £72M. The Government would, together with the profession and the Health Boards, prioritise which professional services could and should be provided within this sum. Each service would be costed in detail, and the remuneration system which was adopted to reward each service would be the most suitable one for that specific service. That is, the remuneration could be an allowance, retainer or a capitation payment. Alternatively, a per case or a per item of service method could be used. Whatever system was used the fees and allowances would not be related to the overall number of prescriptions dispensed, but to the quantum of the pharmaceutical care services actually provided.

Services which did not have a priority, or could not be afforded within the Government allocated budget, would not be provided by the NHS. If the public wished these services, they could pay directly for them or from a contributory private insurance scheme. This solution is used already for dental and optical primary care services..

Another method of disbursing the £72M would be to pay, as at present, a professional allowance together with a revised fee structure. This would also remove differential dispensing fees for special dispensing techniques. The basic blanket average dispensing fee of 88p could also be removed. With the resources generated, no matter how small, the introduction of a restricted, but weighted, per capita payment or fee per item of service structure could be constructed. The fee or allowance would recognise some measure of difference of needs between the patients being treated. This could conceivably be done

without first having calculated the full costs of those services. However in this latter case the sums paid would not have a direct relationship to the cost of providing some of the services required. It has been suggested to the author that it would be possible to pay a salary. Since the undoubted premise is that private contractors will continue to provide the service, it would not be possible, for example, to pay a salary to Boots the Chemist Plc for the total services rendered by the company.

Each year the £72M exemplar budget would be expected to be increased by at least the rate of inflation. The extra sums generated would not have to be used to finance any increase in the number of dispensings, which on past experience are likely to occur. Instead they could be used to increase the rate of payment for some of the cognitive services or to finance the introduction of new services. This would mean, of course, that the net unit reward for the other existing services would fall. However, with such a system some of the old services would be replaced by the new. This would ameliorate this effect.

This system would create a new emphasis on the role and the rewards due to community pharmacy practice. It would change the emphasis away from relying on income from trade to a new climate where justified increases and improvements in professional cognitive patient specific services would be the driving force. Changes in the fees paid could relate to the clinical outcome desired and/or achieved. In order for the latter to be made as practical as possible, the current NHS move to team working and the pharmacist becoming an integral part of that team it would be possible to relate fees to outcomes.

In the short to medium term, the payment of a relatively small mark up of 10% on products supplied would assist in the support of the trade side of the business.

If eventually the fees and allowances paid enabled a viable, cost efficient cognitive based pharmaceutical service to exist, then an oncost or mark up may no longer be necessary.

It is conceivable that some contractors would wish to provide only the cognitive services not associated with dispensing and supply. If that were the case, it would be wise to amend the Regulations to allow such a situation to emerge.

This model is a compromise and has been deliberately designed in an attempt to meet the criteria on business matters in Chapter 2, page 30 and at least have the potential to meet the patient-orientated criteria in Chapter 5, page 68. Since it has been tailored to do so it would be surprising if it did not meet those in Chapter 2 which it does in all respects provided it was implemented in a logical manner. Whether it met those in Chapter 5 or not would much depend on pharmacy contractors accepting that it was an improved and more transparent system and that it gave them the confidence and incentive to improve the pharmaceutical care to patients. With such confidence there would be an incentive to persuade the Primary Care Trusts and other primary care practitioners that their co-operation in meeting the patient-orientated criteria would be in all their interests and those of the patients and public. A new contract underpinned by revised NHS Regulations would assist in strengthening this confidence but it is not an absolute essential.

It is also possible that this system could create the necessary confidence since it would remove to some extent at least the problems created by the apparently inequitable recovery by the Government of discounts received by pharmacy contractors on the purchase of products.

CHAPTER 10

DISCUSSION, IMPLEMENTING CHANGE, CONCLUSIONS AND SUGGESTED FURTHER RESEARCH

DISCUSSION

All of the models studied have some virtue and considerable drawbacks, particularly those which work within the constraints of how the current global sum is set.

Most other countries studied still use a basic mark-up system, although countries like Ireland and the USA are changing to radical payments systems for "clinical" or cognitive services and separating them from the payment for the supply of products.

In this study the top down models one and two offer no advantages other than to the very large pharmacies. Neither offer a way to recognise and reward the provision of cognitive services nor to improve the service to patients.

While capitation payment models are apparently favoured by the Government, the models studied using this method of payment are idealistic. The first version of the top down model three really has no value since it does not address the needs of the pharmacists, the needs of patients nor the apparent needs of Government.

Some of the larger pharmacies would benefit financially from the second version of the top down model three. It would appear that it is possible that some elderly and young patients could benefit clinically from this version, if the assumptions used can be proved by patient outcome research. It would probably be at the expense of the remainder of the patients. There is no financial benefit to the Government.

As with the second version of the top down model three, the third version could, if it were carefully introduced, improve the treatment of patients in deprived areas. Considerable research would have to be carried out to identify and codify deprived areas from a pharmaceutical care point of view, since it is by no means certain that the areas identified as deprived for medical purposes would be acceptable or relevant for pharmaceutical care. In common with the previous version and the constraints imposed by the current method of

arriving at the global sum, any benefit to patients in deprived areas would have to be at the expense of pharmacists and patients in the other areas. There is no real financial advantage to any of the parties.

The fourth version of the top down model three is workable, and could benefit patients with the diseases and conditions which were given a priority. Specialised pharmaceutical care services would be enhanced and improved for such patients. Pharmacists serving these patients would benefit financially. They would, however, have to accept lower fees and perhaps provide a lower level of service than at present for the other patients. There is no financial benefit to pharmacy as a whole nor to the Government.

The fifth version of the top down model three could be introduced quickly. It would benefit all parties financially and there are also potential clinical benefits. Indeed handled carefully it could produce savings for the Government and increased resources for pharmacy. The patients involved would in all probability benefit clinically and a measure of relevant and acceptable patient registration achieved.

However, it is the bottom up models which, in theory, at least, offer the opportunity to make radical improvements in the remuneration system in Scotland.

The bottom up model one, though given a fresh face by current research in USA, is a return to the very old tariff system used in pharmacy and medicine in this country since about 1911. As far as pharmacy is concerned the method was used to reward the varying complexities of the art and science of dispensing. The new version proposed would use the same technique to reward the varying complexities of the cognitive pharmaceutical care services. It certainly appears to have been successfully used in the Minnesota project [184, 188] The fact that considerable research in this country into these cognitive services would be required before it could be established should not detract from its merits. Indeed, there is every incentive in commencing such research as soon as possible, given the move to improve the outcome of medical care. Even if it did not result in a tariff system being introduced in the short to medium term, the research would provide sound information as to the true cost of pharmaceutical care procedures, and would allow the profession and the Government an opportunity to prioritise pharmaceutical care services to better meet the needs of the NHS and NHS patients.

The bottom up model two is even more radical as it gives an insight into the true cost of providing a comprehensive pharmaceutical care service using the costing procedures which the Government applies to other sections of the NHS. A conclusive version of the model cannot be produced at this stage since the research evidence on how much time a pharmacist and his support staff does or should spend with each patient does not exist. It would be to the advantage of the profession to instigate research on several aspects of this model and the consequences of applying it. It has the distinct merit of being consistent with but not the same as the method used to remunerate GPs.

The introduction of the bottom up model three would be to no one's advantage unless it resulted in a substantial fall in the current average fee. Only the Government would benefit from the consequence of this. Also, the nature of the system where the patient would still receive the products at no cost to him and 80% of the patients would not have to pay the fees to the pharmacist, the effect of patient payment on price elasticity of demand would have to be studied in depth since the current economic models do not appear to be relevant.

The bottom up model four is a pragmatic attempt to have the best of all worlds and provide a measured but gradual means to move from a product to a patient orientated service. It would be possible under this remuneration model to have three categories of NHS pharmacies. One providing products only (much the same as dispensing doctors) and no cognitive services. They would be rewarded by a negotiated and relatively small mark up. These pharmacies would be similar to the chain stores in the USA and other countries with a similar system Secondly there would be pharmacies who provided the product and the cognitive services. These are similar to the pharmacies in Ireland anad Denmark. These would be the majority. Thirdly there would be those who complimented the first type by providing only cognitive services but no products. These latter would be similar to the "office" pharmacies in the USA and to the primary care advisors increasingly being located in GP's surgeries in Scotland. It would be to the advantage of all parties if further research was carried out in all aspects of this model and its possible relevance to the NHS.

No new system could be introduced in Scotland without the political will of the Government and with the agreement of the profession.

Finally, in this and similar studies, the emphasis is on the pharmacist and the profession of pharmacy, patients and the NHS. It must not be forgotten, however, that community pharmacy employs many more people engaged in the technical and retail aspects of the business than it does pharmacists. The ratio is on average 6 to 1 [205]. These other people have needs and rights as well as the pharmacists. It cannot be assumed that any move to solve the problems which are inherent in the remuneration system would, as a consequence, improve the situation for those other staff, or meet their needs. The NHS cannot completely deal with this at arms length as it tries to do. It has a moral responsibility to ensure that those with whom it is in contract treat their employees and their contracted staff in a fair and reasonable manner and in a manner similar to other staff providing NHS services.

IMPLEMENTING CHANGE

The basic premise of this study is that the present remuneration system for community pharmacy is unsatisfactory. The view of the members of the profession engaged in community practice is that the quantum of resources made available by the global sum system is inadequate to reward individual professionals for their expertise and for their contribution to primary health care. It is alleged that this results in the community pharmacist contractor subsidising the NHS from the other income which is received from the non-NHS part of the business or from the discounts received on the purchase of products. Since these latter are clawed back by the Government, NHS net income has to be achieved from fees and allowances only.

There is also an apparent dissatisfaction with the level of unit payment for specific pharmacy services. For example, it is maintained that the unit of payment for giving advice to patients and other health care professions for monitoring medicine usage and other cognitive services does not cover the cost of providing these services [213].

It is further argued that what is in effect a retail margin allowed by the NHS on the cost of the products supplied is insufficient to support a viable business without subsidy from the other activities of the business. The move from a product to a patient orientated service is not reflected in both the method used by the remuneration system and by the quantum of resources available.

At the same time in the market place, community pharmacies are sought after businesses. Virtually none have gone bankrupt [214] and, in spite of a partial limitation on the number granted NHS contracts, the number of registered community pharmacies increases year on year [215]. From this, the Government would seem to be correct in its view that at least the quantum of resources obtained from the NHS is adequate to support viable businesses and thus provide an adequate service. The Government does seem willing to change the bias of the payment system away from the product to the patient by the introduction of allowances for cognitive services (e.g. keeping patient medication records, advice to residential homes and the payment of a practice allowance), by diverting resources to support this from payments for supplying the products (e.g. by removing the mark up). Also Government officials have suggested other methods of payment systems, such as a weighted captitation system [115], and in a Government discussion paper has suggested research into alternative remuneration systems.

It is thought by many community pharmacists that their NHS businessess would not be viable if they did not receive uncovenanted profits from the discounts received from suppliers (see above). Although the Government attempts to recover the discounts the pharmacies receive, it is accepted unofficially by both sides of the divide that not all are recovered. This is particularly so with the large multiples whose wholesale arms have considerable buying powers and by any common sense reasoning receive much larger discounts than those which the Government recovers. However, it should be noted that in accounting terms it is not the retail arm of such businesses which receive these discounts. It is the wholesale arm which are separate companies and not in contract with the NHS. This may explain, in part at least, the growth of larger chains of pharmacies and the decrease in small independent pharmacies.

It is also clear that neither the Government nor the profession as a whole has any real knowledge of the true cost of providing even the most simple pharmaceutical care procedure. For example, how long does a pharmacist require to spend dealing with a new patient receiving treatment for asthma? How long does the pharmacist need to spend with an asthma patient or his carer on each subsequent visit for renewed medication? There is no known answer to these questions.

In this respect it would appear that if a pharmacist spends 5 minutes on each dispensing it would not be possible to carry out 120,000 dispensings per annum, since one pharmacist would require a total of 190 hours per week. It may be that an average of 5 minutes on each dispensing is too long but there is no evidence that 5 minutes per patient is too long or too short. Evidence from the hospital service and from the USA that the provision of pharmaceutical care demands such an imput. This latter project is a large experiment in providing pharmaceutical care from a number of community pharmacies [204]. There are other studies in USA chain pharmacies, one of which demonstrates that 30 minutes is not as unusual amount of time to provide pharmaceutical care to hypertensive patients [216]. This time does not include the time taken to dispense the product. It should be noted that this study demonstrates that the treatment improves for those receiving pharmaceutical care over a control group which only received basic pharmaceutical services.

Even if the pharmacist spent no more than 1 minute with every NHS patient, and each patient required one dispensing and if he were carrying out 120,000 dispensings per annum, he would be involved in NHS work for 38 hours per week.

Since most pharmacies are only open 40 hours per week, this would leave little time for other business. Clearly more than one pharmacist would need to be engaged concurrently. However, the present system would not produce an automatic increase in income to compensate for the increase in costs involved in the employment of extra pharmacists.

There is no research available in Scotland which indicates how many dispensings per hour one pharmacist can supervise, nor how long each of the cognitive services currently provided or proposed would require the attention of a pharmacist. Further, common sense directs that some activities will require higher levels of knowledge and skill than others, with an educational input to provide this. The present system does not appear to recognise this in its reward system.

Is it sensible, therefore, to propose alternative remuneration systems when clearly the current environment is one based on guess work and serendipity?

It is only by rational study that a logical answer to that question can begin to emerge. Therefore, it is necessary to study alternative systems at the theoretical level and offer them for wider debate if improvement is desired.

Further, is it sensible to propose alternative systems to the present system while a global sum philosophy remains?

It is suggested that it is, since in the real world a maximum amount will be imposed on any remuneration system, even one which is driven by a true or near true market. Exploring different payment systems within the present global sum allows the consequences to become clear and choices much more transparent.

It must be clear from the work done in this study that there is no one ideal system which would be possible to introduce into the current NHS community pharmacy service given the basic constraints.

These constraints are firstly that the service will continue to be provided by private contractors and that these contractors will vary from large multiple limited liability corporations, through chains of "public" companies (i.e. privately owned companies, shares in which can be bought by the public) to small independent pharmacies owned by the pharmacist himself. Secondly these contractors will continue to dispense the vast majority of NHS primary care prescriptions. Thirdly the government will continue to determine how much can be afforded to provide the service and are unlikely to accept a system of individual payments to individual contractors based on the individual costs they incur in providing the service; averaging of some or all of the fees and allowances will therefore continue.

It is also unlikely that a national salaried service will be introduced since this would probably require the Government to compensate current contractors for loss of their contracts and this was estimated in 1980 [217] to incur capital costs of £900M on a Great Britain basis. A salaried service would require the Government to invest capital in property, equipment and stock rather than the necessary capital coming from private investment sources. This would be a reversal of current Government policy.

An ideal system would be one which met the criteria detailed in Chapter 2 and the patient-oriented criteria in Chapter 5. An ideal system put into general prose would comprise of the following:-

1. It would reward a modest increase in remuneration for the attention paid to the pharmaceutical care of patients as discussed at the end of Chapter 5.

2. If a system met these criteria it would pay a realistic rate for the individual care services which each patient required to ensure the safe and effective use of prescribed and other medicines.

3. Further it would adequately reward the capital invested in the business and reimburse the realistic costs of providing the service.

4. Additionally it would also reward the professional services of the providing pharmacist in order that he/she would receive a competitive income taking into account the expertise involved and the education and training required to achieve that necessary expertise.

5. It would ensure that there were only enough outlets to satisfy the needs of the NHS and its patients and that these outlets were in the correct place to service patients and their families.

6. Such a system would reward initiatives which were aimed at improving patient care and penalised those that did not.

7. It would be based on individual payments for services provided and not depend on crude averaging.

8. It would separate payment for providing pharmaceutical care services from those which were aimed at reimbursing the cost of the provision of the products. It would be affordable within the overall concept of centrally provided resources to finance the NHS.

In this study the exploration of bottom up models allows an objective examination of the elements which comprise the costings of a service. At least one of these models includes all the elements embraced in the concept of pharmaceutical care without actually costing each activity individually. Another bottom up model uses the alternative case payment or tariff system which would require considerable basic research before it could be introduced.

The incentives (or motivation) for community pharmacists to purchase and supply products as cheaply as possible do exist, but not wholly for the benefit of the NHS. The real incentive is to do it in a way which will limit the amount which the Government can claw back as discount recovery. This is clearly to the advantage of larger chains of pharmacies but perhaps allows all pharmacies to remain viable under the NHS system. It clearly inflates the primary care drug bill. More research needs to be done in this aspect of the remuneration system.

A move towards an ideal system is inhibited by a moral ambiguity in the situation of the Government in wishing to improve and extend professional cognitive services provided by all pharmacies, whilst administering a remuneration system which encourages the emergence of larger retail pharmacies and corporate retail companies with an increasing numbers of outlets. It would appear that the achievement of these changes are almost certainly at the expense of the often more patient and community orientated single handed or group practices. The greater discounts on the price of products which the wholesale companies that are part of the large organisations with multiple outlets can generate, the more they are able to introduce new and improved pharmaceutical care practices if they so choose. The expansion or otherwise of meeting professional and care needs are, therefore, driven by commercial organisations and not by the Government, nor by the needs identified by health authorities or their patients. With respect to the pharmacies which are owned by publicly-quoted companies, the role of the City investors cannot be discounted. The funding of such companies is dependant in no small part on the vagaries of these City investors where the views held by company and sector analysts, in particular, can be extremely influential. The decisions on what clinical outcomes are to be achieved are, therefore, in the hands of the large pharmacy businesses and not in those of the NHS.

Thus the current remuneration system results in circumstances where the larger a pharmacy the more income its wholesale arm can generate from the trade side of the NHS business

the more it can internally translate into surplus income (at the retail end) devoted to professional services, if it so desires. This latter extra income is denied to the smaller pharmacy since it cannot commercially generate such a trade surplus. If this trade surplus came from other than the NHS budget, then there would be no alleged moral ambiguity. However it comes from the inflation of the drug bill by a few percentage points greater than is the reality of the case. The larger pharmacies, therefore, use NHS resources not available for commercial reasons to their smaller colleagues not only to compete with them in a trade sense, but also to dictate what additional professional services are provided, how they are to be provided and the extent and to whom they are provided. Thus, they remove to themselves the decision on the levels of care to be provided by the NHS.

The present system provides no apparent motivation to provide new or proposed cognitive roles since the payment for them does not currently exist, is token in amount, or is hidden within the fees and other payments for apparently unrelated services.

In addition, if motivation is to exist for the pharmacies, especially the larger ones, services will need to be introduced which are believed to be necessary or commercially viable as well as being those which are required by the NHS. The models explored attempt to offer a more transparent way of paying for all services.

One of the tactics used to increase the status of a profession is to expand its boundaries and to seek increased rewards for the new services offered without changing the current services or the rewards for these (see Chapter 1). Care must be taken, therefore, to ensure that any new roles for pharmacy are those required by the NHS to improve, in an effective and cost efficient way, the care of patients and not only because they are commercially attractive. The reward for carrying them out should recognise the skill, knowledge and costs of providing each new service. Averaging is counter productive [214]. The models explored have attempted to bear this in mind. However, further research is required to increase the robustness of the hypothesis that the community pharmacy and the pharmacist are underused and underfunded by the NHS.

CONCLUSION

It is accepted that this study was limited in its objectives and had to use untested and unresearched assumptions. However, it was aimed at being a mapping and description research project designed to identify areas of research which have a realistic chance of encouraging a change in the NHS Community Pharmacy remuneration system in Scotland. A remuneration system in quantitative and qualitative terms reflects the desirability and value of the service provided. There is a general acceptance that the products the service provide in the majority of cases make an important and valuable contribution to the improvement of patient care. It is also generally accepted that the value would increase if the contribution of the pharmacist was increased by the provision of cognitive services in which he is an increasingly well educated expert. The remuneration system has to be changed if these latter services are to become a normal part of the NHS. If they are not to be so integrated and are not to be provided then this should be made quite clear to the public by the profession and by the Government.

This study confirms that systems other than the present one exist. It also confirms that some other countries are as slow as Scotland to change to a system which rewards cognitive, clinical and pharmaceutical care activities. Ireland and particularly the USA have demonstrated that the cost of radical systems can be contained within overall State and other health care systems. Ireland which is similar to Scotland in how community pharmacy operates has shown that small changes are possible which produce potentially large improvements in pharmaceutical care.

It is clear from this study that the most radical model would be the target income model (bottom up model two). The first variation assumes a similar number of pharmacies as at present exist in Scotland. The second variation reduces this number by a half. The latter could not, therefore, be introduced readily or speedily. This model, however, is used for other primary care practitioners and could have the virtue in standardising this model across the primary care sector.

The next favourable model is bottom up model one since it has had a degree of acceptance by all the stakeholders in some parts of the USA and is logical in that what the service pays

for and what the practitioner receives is related to his expertise and the work and time he devotes to providing the service. The system is transparent.

Bottom up model four is a pragmatic attempt to make only minor modification to the present system but to move the payment system towards providing pharmaceutical care of patients and away from rewarding the supply of products only. It is practical and achievable in the short term and therefore has much to commend it.

The main lesson or conclusion from this study is that there is little if any hard research on remuneration systems which encompasses all the variables including patient needs as well as those of the pharmacy practitioners and the Government. Improvements which meet the needs of all these players are accepted as being required. It is suggested from this study that the following areas of research are the most pertinent and are the most urgent.

SUGGESTED FURTHER RESEARCH

The most obvious research which should follow this study is for the profession and the Government, either separately or together, to agree models which are worth pursuing and to develop them to a level which would allow pilot studies to proceed.

Research into the time a pharmacist requires to safely and efficiently dispense a prescription and the time and resources needed to provide specified pharmaceutical care procedures for patients with specified diseases and problems is urgently required.

Complimentary research resulting in pilot studies into alternative organisation structures to provide what is currently termed community pharmacy services should be resourced. While some work has been carried out on this, there is no evidence that the studies have been set up in a way which result in the cost benefit of the alternatives being correctly arrived at.

Studies identifying the pharmaceutical care needs of socially deprived localities is urgently needed.

This study has shown that the status quo is not an option which should be acceptable to any of the parties. Research which tries to prove that it is, should not be resourced.

POST SCRIPT

The statement by Adam Smith in 1776, quoted in the preface to this study, that the only way the apothecary (the present day community pharmacist) could recover his deserved reasonable wages for his skill was by achieving a high profit (i.e. mark up) on the products sold is still perceived by many as the only way community pharmacy can be rewarded. This study has demonstrated that this is not the case. It has shown that to change such a long entrenched attitude is extremely difficult: but not impossible.

APPENDIX 1

A STATEMENT OF CURRENT FEES AND ALLOWANCES PAID TO NHS PHARMACY CONTRACTORS ISSUED BY SCOTTISH OFFICE IN 1996

MEMORANDUM TO NHS CIRCULAR: PCS(P)(1996) 1

DISPENSING FEE

The controlled drug fee is to be abolished with effect from 1 December 1996. Schedule 2 controlled drugs will attract a single fee of 175p on each dispensing. All other controlled drugs will be paid at the standard rate of 88p per prescription.

SERIAL DISPENSING

Agreement has been reached between SPGC and the Department that in order to contain expenditure within the 1996/97 global sum from 1 December 1996 until 31 March 1997, for serial dispensing other than Schedule 2 controlled drugs, the standard fee of 88p will be payable for the first dispensing of an item and a fee of 22p for each subsequent dispensing of the same item on the same prescription.

PROFESSIONAL ALLOWANCE

The thresholds for payment of the professional allowance have been revised with effect from 1 December 1996 as follows:-

1. Contractors dispensing 1,100 - 2,859 prescriptions will be paid £575 plus £1,175 pro rata to the number of prescriptions up to 2,860 per month.

2. Contractors dispensing 2,860 prescriptions and over per month will be paid £1,750 per month (£21,000 per annum).

3. For Essential Small Pharmacies the allowance will be determined using the same criteria made up to 1,400 prescriptions per month.

GRANTS FOR EMPLOYMENT OF PRE - REGISTRATION TRAINEES.

The grant payable under the scheme detailed in NHS Circular 1980 (PCS) 27 has been increased to £4,600 per annum for employment of pre - registration trainees who commence training after 1 June 1995. Chemist contractors are advised that they can claim £2,300 at the end of the first 6 months period. Claims in respect of trainees who commenced training prior to 1 June 1995 and who complete their training after that date should be paid at the previous rate of £4,500.

OTHER FEES.

All medicaments (including proprietaries) not requiring extemporaneous preparations and all liquids for internal and external use prepared by addition of water or by simple dilution for extemporaneous dispensing.

88p

Standard fee payable per prescription.

Extemporaneous Dispensing

a) All liquids for internal and external use prepared to a special formula, e.g. mixtures, lotions, nasal drops.	330p
b) Ointments, creams, pastes prepared by dilution or admixture of standard or proprietary ointments, creams or pastes.	
Quantity (a) not exceeding 200g	275p
(b) 201g-500g	550p
(over 500g-5.50p per 500g or part thereof)	
Ointments, creams, pastes prepared to a special formula	
Quantity (a) not exceeding 200g.	562p
(b) 201g-500g	1,125p
(over 500g-11.25p per 500g or part thereof).	
c) Special formula bulk powders.	550p
d) Individual powders, capsules, etc./. for first 10 (and 22p per powder, capsule, etc., thereafter).	225p
e) Liquids prepared by aseptic technique, e.g. eyedrops.	1,000p
f) Liquids prepared by a BP sterilisation process	1,116p

Appliances.

a. All appliances except for Ostomy/Urinary equipment. 0.15p

b. Ostomy/Urinary equipment 1.20p

Controlled Drugs.

Schedule 2 drugs dispensing fee 1.75p

Urgent fees.

a. Prescriptions dispensed between the time the premises close for dispensing and 11 pm on days other than Sundays and Public Holidays. £11.00p

b. Prescriptions dispensed between 11pm and the time the premises open for dispensing on days other than Sunday and Public Holidays £15.00p

c. Prescriptions dispensed at all eligible hours on Sundays and Public Holidays. £15.00p

Rota Fees.

The payment rates for approved rota services are £19.50 per hour on Sundays, Public Holidays and early closing days; and £8.25 per hour on remaining week days.

Patient Medication Records.

As part of the remuneration package negotiated in 1995/96 it has been agreed that separate payments for the maintenance of patient medication records are to be abolished with effect from 1 April 1996. Following 1 April maintenance of patient medication records will become a prerequisite for payment of professional allowance. However, 1996/97 will be regarded as a transitional year and for these contractors who do not qualify for professional allowance, i.e. those dispensing less than 1,000 prescriptions will receive a transitional payment of £400.

Advice to Residential Homes.

Initial establishment fee.	£21.00
Annual Allowance.	£190.00
Additional Patients (over 25 in any home).	£5.10

STOCK ORDER ONCOST ALLOWANCE.

It has been agreed that with effect from 1 December 1996 the percentage allowance for oncost will reduce from 25% to 17.5%.

DOMICILIARY OXYGEN THERAPY SERVICE.

Rental of Sets	1.80p per month
Supply of Sets	9.25p
Supply of Cylinders	8.29p
Collection of Set and Cylinders at the end of treatment	8.29p
Ineffective journeys for supply of or collection of Set and Cylinders	8.29p

Allowances for delivery.

Mileage	1-6	6-10	10-20	20-30	30 and over
1. Supply of sets	940p	1,642p	1,838p	2,629p	80p
2. Supply of cylinders	850p	1,556p	1,752p	2,546p	79p
3. Supply of masks, nasal cannulae or tubing	850p	1,556p	1,752p	2,546p	79p
4. Collection of sets and cylinders at end of treatment	850p	1,556p	1,752p	2,546p	79p
5. Ineffective journeys for supply or collection of sets and cylinders	850p	1,556p	1,752p	2,546p	79p

LOCAL BUDGETS

From 1 April 1997 arrangements will be made to transfer funding from central to health board level to negotiate locally provision for and payment to chemist contractors for advice to residential homes, needle exchange services, methadone dispensing, disposal of patients' unwanted medicines and domiciliary oxygen therapy service.

APPENDIX 2

SCOTTISH OFFICE CIRCULAR INTRODUCING THE PROFESSIONAL ALLOWANCE

MEMORANDUM TO NHS CIRCULAR: PCA(P)(1993) 1

CHEMIST CONTRACTORS

THE EXTENSION OF THE PATIENT MEDICATION RECORDS SCHEME AND THE INTRODUCTION OF A PROFESSIONAL ALLOWANCE FOR PROVIDING SPECIFIC SUPPLEMENTAL SERVICES

Summary

1 Health Boards have been informed that the Secretary of State for Scotland has approved an agreement reached by the Pharmaceutical Whitley Committee B under which with effect from 1 May 1992:

- the Patient Medication Records Scheme has been extended to include all patients regardless of age or therapy.

- Those chemist contractors dispensing 1,300 or more prescriptions per month will be paid a professional allowance for providing specific supplemental services and on a pro-rata basis of 1,300 prescriptions to those dispensing between 1,000 and 1,299 prescriptions per month. The arrangements for Essential Small Pharmacies are contained in NHS Circular PCS (P) 1993) 2.

2. Health Boards are responsible for the administration of the schemes under which the allowances are paid. This memorandum details the basic scheme criteria, allowances and monitoring arrangements.

3. By virtue of the National Health Service (General Medical and Pharmaceutical Services) (Scotland) (Amendment) Regulations 1993, the provision of the above schemes will be covered by contractors' terms of service.

FEE/ALLOWANCE RATES

4. It has been agreed with the Scottish Pharmaceutical General Council - the organisation which is, in the opinion of the Secretary of State for Scotland, representative of the general body of chemist contractors - that:

   - the funding of the patient medication records scheme will be within an annually agreed budget; and

   - the professional allowance will form part of the remuneration for chemist contractors.

PATIENT MEDICATION RECORDS (PMR) ALLOWANCE

5. Subject to fund availability, the establishment fee (£250) and a first instalment of £200 (i.e. half the annual allowance of £400) is payable following contract acceptance. The second and final instalment of £200 payable 12 months thereafter on receipt of the appropriate claim form. Thereafter the contractor may claim the allowance annually in arrears provided they continue to maintain the minimum of 50 records.

PROFESSIONAL ALLOWANCE

6. The current rate of the professional allowance payable to chemist contractors dispensing 1,300 or more prescriptions per month is £6,900 per annum. The professional allowance is paid on a pro-rata basis of 1,300 prescriptions to those dispensing between 1,000 and 1,299 prescriptions per month. The arrangements for Essential Small Pharmacies are contained in NHS Circular PCS(P)(1993)2.

SCHEME ELIGIBILITY AND CRITERIA:

PATIENT MEDICATION RECORDS

7. Since its introduction in 1989 the scheme has covered the keeping of records of medicines and advice supplied to patients on long term medication and if they are in one of the following two groups:

   - the elderly who are exempt from prescription charges i.e. women aged 60 or over, and men aged 65 or over;

- other patients who, in the opinion of the chemist, may have difficulty in understanding the nature and dosage of the medicine or drugs supplied, and the times at which they are to be taken.

8. The term "long term medication" should be interpreted to mean as having at least 4 prescriptions dispensed, for the same or associated clinical conditions, within a 12 month period.

9. This remains the basic requirement but it is now open to the chemist contractors to extend the scheme to all patients regardless of age or therapy.

10. The scheme is open to the chemist contractors on the Health Board's pharmaceutical list, who consider that within 12 months of entering the scheme they will be able to provide the service to a minimum of 50 patients.

NB: Records maintained in connection with the Residential Homes scheme are not reckonable under the PMR scheme.

11. The PMR record scheme proposed or in operation should be one that is recognised by the Royal Pharmaceutical Society of Great Britain (RPSGB) and at the minimum contain the patient's name, address and date of birth, with information on the medicines supplied i.e. product, dosage, strength, presentation, quantity and date of dispensing; and, if on prescription, the GP reference.

12. Health Boards may grant contracts to chemist contractors who undertake that the chemists they employ or use to provide the service will comply with any necessary education/training requirements, as determined or approved by the Scottish PQE Board, and conform to the standards of practice generally accepted by the pharmaceutical profession.

13. CHEMIST CONTRACTORS TAKING PART IN THE SCHEME WILL BE RESPONSIBLE FOR REGISTRATION UNDER, AND COMPLIANCE WITH, THE DATA PROTECTION ACT. CONTRACTORS ARE ADVISED TO

ENSURE THAT THEY LIST THE HEALTH BOARD AS A BODY, TO WHOM THE DATA THEY HOLD, MAY BE DISCLOSED.

SCHEME ELIGIBILITY AND CRITERIA: PROFESSIONAL ALLOWANCE

14. The professional allowance is payable with effect from 1 May 1992 to those chemist contractors dispensing 1,300 or more prescriptions per month and on a pro-rata basis of 1,300 prescriptions to those dispensing between 1,000 and 1,299 prescriptions per month where apart from the dispensing services, 4 other services are provided. The arrangements for Essential Small Pharmacies are contained in NHS Circular PCS(P)(1993)2. The additional services to be provided are:

    14.1 to set aside areas for displaying health education material;

    14.2 to provide advice and counselling on medicines and appliances at the discretion of the pharmacist or at the request of other health care professionals or the patient/patient's representative:

    14.3 to undertake clinical audit within the NHS structures in Scotland; and

    14.4 the production of a practice leaflet giving customer advice on the NHS services offered, (effective from 1 April 1993).

MONITORING ARRANGEMENTS

15. Under the terms of the amended NHS (GMPS) Regulations, Health Boards have a right of access to the records etc. maintained by the contractor for the purposes of either scheme.

16. Some visits may be necessary to check the accuracy of claim data; but in any event the Board will arrange for regular visits to the pharmacy to assess the extent and standard of service provision. If the standard of service provision is considered unsatisfactory then the Health Board will inform the contractor accordingly in writing, advising that the situation will be reviewed in 3 months. If the standard remains below that expected, the matter may be regarded as a breach of terms of service and dealt with under the appropriate Service Committee Regulations.

DRUG TARIFF

17. A suitably edited version of this memorandum will be incorporated into the Drug Tariff.

18. Enquiries relating to the terms of this memorandum should be addressed to the Health Board.

APPENDIX 3

SCOTTISH OFFICE HEALTH CIRCULAR INTRODUCING PAYMENT FOR COGNITIVE SERVICES

MEMORANDUM TO NHS CIRCULAR 1989 (PCS)26

Chemist Contractors

NATIONAL HEALTH SERVICES, SCOTLAND: PAYMENTS TO CHEMIST CONTRACTORS FOR ADVICE TO RESIDENTIAL HOMES, AND FOR MAINTAINING PATIENT MEDICATION RECORDS (PMRs)

SUMMARY

1. Health Boards have been informed that the Secretary of State for Scotland has approved an agreement reached by the Management and Staff Sides of the Pharmaceutical Whitley Committee B whereby, from 7 November 1989, chemist contractors may be paid allowances for (a) providing advice to Residential Homes on the safekeeping and correct administration of medicines, and (b) maintaining records of medicines and advice supplied to certain patients on long term medication.

2. Health Boards are to be responsible for the introduction and administration of the schemes under which the allowances will be paid. This Memorandum details the basic scheme criteria, and the rates of fee or allowances payable for contracts that become effective during the remainder of the 1989/90 fiscal year.

3. By virtue of amendments to the National Health Service (General Medical and Pharmaceutical Services) (Scotland) Regulations 1974, the provision of the above services will be covered by contractors' terms of service.

LEVEL OF ALLOWANCES PAYABLE IN 1989/90

4. It has been agreed with the Pharmaceutical General Council (Scotland), the organisation which is, in the opinion of the Secretary of State for Scotland, representative of the general body of chemist contractors - that funding of the schemes will be within an annually agreed budget. In the circumstances there may be instances where the Health Board is unable to commence initial fee or allowance payment (following approval of applications) until the 1990/91 fiscal year.

Residential Homes Allowance

5. The amounts payable against applications approved in 1989/90 are as follows:-

   Initial Establishment Fee £20

   Basic Annual Allowance £125

   Plus £5 per resident where the home's resident population exceeds 25 e.g. 30 residents would attract an allowance of £150.

6. Subject to fund availability, the establishment fee and a first instalment (i.e. one half) of the annual allowance will be payable following contract acceptance. The second and final instalment is payable 12 months thereafter on receipt of an appropriate claim form. Thereafter the contractor must claim the allowance annually on the anniversary of the last payment i.e. retrospectively.

PMR Allowance

7. Subject to fund availability, the establishment fee (£230) and a first instalment of £120 (i.e. half the annual allowance of £240) is payable following contract acceptance. The second and final instalment of £120 is payable 12 months thereafter on receipt of an appropriate claim form. Thereafter the contractor may claim the allowance annually, on the anniversary of the last payment i.e. retrospectively, provided they continue to maintain the minimum of 50 eligible PMRs.

SCHEME CRITERIA : RESIDENTIAL HOMES

8. Types of Home and Patient Covered

   8.1 The type of home for which an allowance may be claimed is one registered under the terms of the Nursing Homes Registration (Scotland) Act 1938, or one to which Part IV of both the Mental Health (Scotland) Act 1984 and the Social Work (Scotland) Act 1968 applies. In effect this covers all Health Board registered private nursing homes and local authority or local authority registered residential care homes.

8.2 The allowance payable will be calculated on the approved bed complement for local authority homes, and the registered number of patient bed places for registered homes.

Contract Eligibility and Criteria

8.3 The service must be provided by pharmacists, either a proprietor pharmacist included in the Health Board's pharmaceutical list or a pharmacist employed by a chemist contractor.

8.4 Health Boards may grant contracts to chemist contractors who undertake that the pharmacist(s) they employ or use to provide the service will comply with any necessary education/training requirements as determined or approved by the Scottish PQE Board, and will conform to the practice standards generally accepted in the pharmaceutical profession. Drawing from these the Department, in consultation with the profession, intends to product Practice Guidance documentation for subsequent issue to all Health Boards.

8.5 The number of homes an individual contractor may serve for contract purposes is limited to 5. However, the Board may grant service contracts in respect of an additional number of homes where it can be demonstrated that prior to 7 November 1989 (i.e. the date of scheme implementation) the contractor already provided a service to more than 5 homes. For scheme payment purposes no home may have an arrangement with more than one chemist contractor.

8.6 The service requirements shall include an initial visit, with subsequent visits at intervals of not more than three months, the giving of advice on the safekeeping and correct administration of drugs and medicines, and the keeping of records of visits made and advice given.

Application Procedures

8.7 It will be for the contractor chemist to seek initial agreement on service provision with the manager or appropriate officer in charge of a residential home, and thereafter to apply to the Health Board for contract approval. The agreement form, obtainable from the Health Board, requires the signatures of

both the contractor and an appropriate person e.g. manager, from the home in question.

SCHEME CRITERIA : PMRS

9. Types of Patient Covered

9.1 The scheme covers the keeping of records of medicines and advice supplied to patients who are on long term medication, and if they are in one of the following two groups:

- the elderly who are exempt from prescription charges i.e. women aged 60 or over, and men aged 65 or over;

- other patients who, in the opinion of the pharmacists, may have difficulty in understanding the nature and dosage of the medicine or drugs supplied, and the times at which they are to be taken.

9.2 The term "long term medication" should be interpreted to mean as having at least 4 prescriptions dispensed for the same or associated clinical conditions within a 12 month period.

Scheme Eligibility and Criteria

9.3 The scheme is open to the contractor chemists on the Health Board's pharmaceutical list, and who consider that within 12 months of entering the scheme they will be able to provide the service to a minimum of 50 persons from the groups defined above.

NB: Records maintained in connection with the residential homes scheme are not reckonable under the PMR scheme.

9.4 The PMR record system proposed or in operation should be one that is recognised by the Royal Pharmaceutical Society of Great Britain (RPSGB) and at the minimum contain the patient's name, address and date of birth, with information on the medicines supplied i.e. product, dosage, strength,

presentation, quantity and date of dispensing; and if on prescription, the GP reference.

9.5 Health Boards may grant contracts to chemist contractors who undertake that the pharmacists they employ or use to provide the service will comply with any necessary education/training requirements, as determined or approved by the Scottish PQE Board, and conform to the standards of practice generally accepted in the pharmaceutical profession. Drawing from these the Department, in consultation with the profession, intends to produce Practice Guidance documentation for subsequent issue to all Health Boards.

9.6 Chemist contractors taking part in the scheme will be responsible for registration under, and compliance with, the Data Protection Act. Contractors are advised to ensure that they list the Health Board as a body to whom the data they hold may be disclosed.

APPLICATION REFUSAL

10. Where the initial decision is to refuse the contract (other than delay due to financial limitation) the case will be referred to the Health Board's General Pharmaceutical Committee (or its equivalent) for decision review and, where appropriate, and final determination. The "final" nature of that Committee's decision will be dependent on whether the Board has delegated its power to the Committee or merely referred it.

MONITORING ARRANGEMENTS

11. Under the terms of the amended NHS (GMPS) Regulations, Health Boards have a right of access to the records maintained by the contractor for the purposes of either scheme.

12. Some visits may be necessary to check the accuracy of claim data; but in any event the Board will arrange for regular visits to the home or pharmacy to assess the extent and standard of service provision, and compliance with the appropriate Practice Guidance. If the standard of service provision is considered unsatisfactory then the Health Board will inform the contractor accordingly in writing, advising that the situation will be reviewed in 3 months. If the standard remains below that expected, the matter may be

regarded as a breach of terms of service and dealt with under the appropriate Service Committee Regulations.

DRUG TARIFF

13. A suitably edited version of this Memorandum will be incorporated into the Drug Tariff at the earliest suitable opportunity.

14. Enquiries relating to the terms of this Memorandum and attachments should be addressed to the Health Board.

APPENDIX 4

STATEMENT ON FEES AND ONCOST PAID TO SCOTTISH PHARMACIES IN 1952

EXTRACT FROM DRUG TARIFF - JANUARY 1952.

4. ***Payment for Water.*** Payment for water will be made only where distilled water has been prescribed, or where its use is implied, *e.g.*, in all preparations intended for application to, the eye, or where the Secretary of State is satisfied that the water ordinarily available to the chemist is unsuitable for dispensing purposes and distilled water is used.

5. ***Oncost Allowance.*** When making payment for prescriptions priced in accordance with the tariff prices an oncost allowance of 25 per cent, is added each month to the total cost *of the ingredients* dispensed.

C. Dispensing Fees.

In addition to the payments for drugs and the special allowance for containers (see paragraph 3 of Part III), dispensing fees will be paid at the rates shown in the following table.

The table of dispensing fees is designed to result in an *average* dispensing fee of 1s. 6d. per prescription, prescriptions for appliances being *included* in calculating the average fee (although dispensing fees are not paid for these).

TABLE OF DISPENSING FEES.

	Fee per Prescription (additional to payment for ingredients and allowance for containers)
1. All proprietary medicaments whether in the original pack or dispensed from broken bulk. *Any quantity*.....	1s. 2d.
2. Other medicaments if dispensed in packs as supplied by the manufacturer or wholesaler. *Any quantity*.....	1s. 2d.
3. Tablets,Pills, Capsules, Lozenges, Suppositories, Pessaries, Plasters, Bougies, official or officinal. *Any quantity*.....	1s. 2d.
4. Ointments, Creams, Pastes, Confections, official or officinal *Any quantity*.....	1s.3d.
5. Powders in bulk and Granules, official or officinal. *Any quantity*.....	1s. 3d.
6. Mixtures, Liniments, Lotions, Gargles, Paints and all liquid medicaments for internal and external use. *Any quantity*.....	2s. 3d.
7. Ointments, Creams, Pastes, Confections extemporaneously prepared; including Penicillin Cream B.P. and Penicillin Ointment not of B.P. strength. *Any quantity*.....	2s. 3d.

8. Powders in bulk and Granules extemporaneously prepared.

Any quantity..... 2s. 3d.

9. Powders wrapped in separate doses and cachets, *1 to6*..... 2s.

7 to 12.... 3s.

Each extra dozen or part thereof... 2s.

10. Tablets, Pills, Lozenges, Pastilles and Capsules extemporaneously prepared. *Not exceeding 24*..... 3s.

Each extra 2 dozen or part thereof... 2s.

11. Suppositories, Pessaries and Bougies extemporaneously prepared *Not exceeding 12*..... 4s.

Each extra dozen or part thereof.... 2s.

12. Plasters and Blisters extemporaneously prepared.

Any quantity..... 4s.

13. Ampoules and Solutions, or Suspensions of medicaments; Penicillin Drops and Eye Drops extemporaneously prepared with aseptic technique; Sterile Penicillin Cream BP

Any quantity..... 5s.

'Urgent' Prescriptions. Prescription forms endorsed 'Urgent' by the prescriber and where the hour of dispensing endorsed by the Chemist is outside contract and service hours rota - Additional fee of 2s. per form.

APPENDIX 5

STATEMENT ON FEES AND ONCOST PAID TO SCOTTISH PHARMACISTS IN 1963

ONCOST ALLOWANCES

20. (a) *Stock Orders.* The total ingredient cost of items ordered by doctors on Forms E.C. 10A shall continue to attract a rate of oncost allowance of 25 per cent.

(b) *Prescriptions.* In making payment to a chemist-contractor for prescriptions dispensed by him and received in the Pricing Bureaux during a calendar month to the total cost of the drugs and preparations (including oxygen cylinders and chemical reagents) and appliances, excluding such items on doctors' stock orders (Forms E.C. 10A), calculated in accordance with the provisions set out in the Drug Tariff, there shall be added an oncost allowance at a composite percentage rate calculated so as to represent (to the nearest one-tenth of one per cent. where the number of prescriptions does not exceed 2,500 and to the nearest one-twentieth of one per cent. in other cases) 25 per cent. for each prescription up to 500, 20 per cent. for each prescription from 501 to 750, and 12½ per cent for the remainder, provided that:

(i) where prescriptions are received in the Pricing Bureaux from one or more persons whose names are separately entered on the Pharmaceutical List in respect of the provision of services at the same place of business, all such prescriptions shall be aggregated for the purposes of the aforesaid calculation of the composite percentage rate, and the rate so calculated shall be applied to the prices of the prescriptions received from each of the persons;

(ii) where a person's name is entered on the Pharmaceutical List in respect of the provision of services at more than one such place of business, the aforesaid calculation of the composite percentage rate shall be made separately in relation to the prescriptions received in respect of the services provided at each place of business;

(iii) for the purposes of this proviso, 'person' includes a firm or company.

DISPENSING FEES

21. In addition to the payment for drugs, the special allowance for containers (see para. 4), and the oncost allowances (see para. 20), dispensing fees will be paid at the rates shown in the table below. These dispensing fees are not payable for prescriptions for appliances. Also there shall be payable, to chemist-contractors who are included in the Pharmaceutical List for the supply of drugs, an additional dispensing fee of 4d. per prescription for the supply of drugs and preparations (including oxygen cylinders and chemical reagents) and a supplementary payment of 4d. per prescription for appliances.

URGENT PRESCRIPTIONS

22. For prescription forms endorsed 'Urgent' by the prescriber and where the hour of dispensing endorsed by the chemist is outside contract and service hours rota, an additional fee of 2s. per form is payable.

ROTA SERVICE

23. Where any Executive Council is satisfied that a rota service is necessary and the scheme is approved by the Secretary of State, payment will be made to the chemist concerned at the following rates from 1st November 1963:-
20s. per hour on Sundays, Public Holidays and early closing days.
10s. per hour on the remaining weekdays. (Ref: ECS(P) 17/1963 d.11.12.63).

Table of Dispensing Fees

		Fee per Prescription (additional to payment for ingredients and allowance for containers)
(1)	All medicaments (including proprietaries) *not* requiring extemporaneous preparation, e.g., mixtures, liniments, lotions, gargles, paints and all liquids for internal and external use, tablets, pills, capsules, lozenges, plasters, suppositories, pessaries, bougies, ointments, creams, pastes, confections, powders in bulk and granules, etc.	
	Any Quantity	1s. 7d.
(2)	All medicaments *requiring extemporaneous preparation,* e.g. mixtures, liniments, lotions, gargles, paints and all liquids for internal and external use, ointments, creams, pastes, confections, powders in bulk and granules, etc.	
	Any Quantity.....	2s. 5d.
(3)	Powders wrapped in separate doses and cachets extemporaneously prepared.	
	1 to 6.....	2s.
	7 to 12.....	3s.
	Each extra dozen or part thereof.....	1s.
(4)	Tablets, pills, capsules, lozenges and pastilles extemporaneously prepared.	
	Not exceeding 24.....	4s.
	Each extra 2 dozen or part thereof.....	2s.
(5)	Suppositories, pessaries and bougies, etc., extemporaneously prepared	
	Not exceeding 12.....	4s.
	Each extra dozen or part thereof.....	2s.
(6)	(a) Ampoules and solutions or suspensions of medicaments; eye drops, etc., all extemporaneously prepared with aseptic technique.	
	Any Quantity.....	4s.
	(b) Plasters and blisters extemporaneously prepared.	
	Any quantity.....	4s.

APPENDIX 6

SCOTTISH OFFICE HEALTH CIRCULAR REMOVING COST PLUS CONTRACT

Scottish Home and Health Department

St Andrew's House
Edinburgh EH1 3DE

Telephone
Direct Dialling 031-244
Switchboard 031-556 8400
GTN 2688
Telex 72202

NHS CIRCULAR NO 1988 (PCS) 27

General Managers of Health Boards
General Manager, Common Services Agency

Your ref

Our ref
PLC/3/2

Date
29 December 1988

Dear Sir

REMUNERATION OF CHEMIST CONTRACTORS - REVISED TERMS OF SERVICE

1. This Circular advises Health Boards of the Secretary of State's decision to terminate the present basis for determining the dispensing fee element of contractor chemists' remuneration, and in future to determine the dispensing fee rates by means of direct negotiations. The present arrangements will continue for the remainder of the current fiscal year, with the revised method for determining remuneration and the practice of applying directly negotiated dispensing fee rates taking effect from 1 April 1989.

2. Details of the revised method and of the remuneration rates to be applied from 1 April 1989, will be subject to consultation between the Department and the Pharmaceutical General Council (Scotland) - the organisation which the Secretary of State considers to be representative of the general body of contractor chemists. A further circular will be issued on completion of the proposed consultation process, before 1 April 1989.

Action by Health Boards

3. Health Boards are requested to distribute a copy of the attached memorandum to all chemist contractors on their pharmaceutical list. Sufficient copies of the attachment to this Circular are being sent under separate cover to Health Boards for distribution. Appliance suppliers are not affected by the terms of this Circular and therefore may be excluded from the distribution list.

4. In view of the importance of this intimation, Health Boards are requested to ensure that the above action is taken expeditiously.

5. Enquiries about this Circular should be addressed to Mr C A Naldrett at the above address; or telephone 031-244-2522.

Yours faithfully

CHEMIST CONTRACTORS

NATIONAL HEALTH SERVICE (SCOTLAND) : REMUNERATION OF CHEMIST CONTRACTORS

1. Health Boards have been informed of a decision by the Secretary of State to introduce revised remuneration arrangements with effect from 1 April 1989.

2. Under the revised arrangements the present basis for determining the dispensing fee element of contractor chemists' remuneration will no longer operate. The dispensing fee rate will be determined annually by means of direct negotiation between the Department and the organisation which is, in the Secretary of State's opinion, representative of the general body of chemists i.e. the Pharmaceutical General Council (Scotland) - PGC(S).

3. Discussions have commenced between the Department and the PGC(S) on the detail of the revised basis for determining remuneration, and on the dispensing fee rates to apply from 1 April 1989. A further Memorandum will be issued on completion of the due consultation process.

4. The current rumuneration arrangements will continue on all dispensing transactions up to and including 31 March 1989.

5. Any questions about this Memorandum should be addressed to the Health Board.

Scottish Home and Health Department
Edinburgh

29 December 1988

Scottish Home and Health Department
St Andrew's House
Edinburgh EH1 3DE

Scottish Office Health Circular Detailing a Three Level Basic Fee Structure

Telephone Direct Dialling 031-244
Switchboard 031-556 8400
GTN 2688
Telex 72202

NHS Circular 1989 (PCS)7

Previous Circulars Amended
1988 (PCS)10
1989 (PCS)5

Your ref

Our ref PLC/3/1,PLC/5/2
PLC/5/7,PLC/5/1

General Managers of Health Boards
General Manager, Common Services Agency

Date 21 March 1989

Dear Sir

PHARMACEUTICAL SERVICES
DRUG TARIFF
DISPENSING FEES
EXTEMPORANEOUS, APPLIANCE, AND CONTROLLED DRUG PRESCRIPTION FEES
URGENT PRESCRIPTION FEES
ROTA FEES
DOMICILIARY OXYGEN THERAPY SERVICE
ESSENTIAL SMALL PHARMACY SCHEME (ESPS) ALLOWANCE
GRANTS FOR EMPLOYMENT OF PRE-REGISTRATION TRAINEES

1. The Secretary of State has approved agreements reached by the Pharmaceutical Whitley Committee B on revision of dispensing fees, fees for dispensing urgent prescriptions, rota service fees, delivery allowances and set and stand rentals for the Domiciliary Oxygen Therapy Service, Essential Small Pharmacy Scheme Allowance and grants for the employment of pre-registration trainees.

Dispensing Fees

2. The revised dispensing fees, which will apply to prescriptions dispensed on or after 1 April 1989, are as follows:

0-1299	prescriptions per month	128p
1300-2999	prescriptions per month	58p
3000+	prescriptions per month	47p

Extemporaneous, Appliance and Controlled Drug Prescriptions

3. The revised fees as set out in the attached Memorandum will apply to extemporaneous, appliance and Controlled Drug prescriptions dispensed on or after 1 April 1989.

Urgent Prescriptions - Fees

4. With effect from 1 April 1989, the urgent fees payable where a chemist contractor is required to re-open his pharmacy outside both contracted hours of service and agreed rota hours are increased to £9.40 per call-out between the time the premises close for dispensing and 11.00pm on days other than Sundays and public holidays, and £12.70 per call out after 11.00pm and also on all eligible hours on Sundays and

APPENDIX 8

THE NEW CONTRACT FOR COMMUNITY PHARMACISTS IN IRELAND

The elements of the new contract contain the following 39 items of detail.

1. **Advance Payments.**

An advance payment is made to each pharmacist on entering the scheme and retained by him until he leaves the scheme; the intention being that the pharmacist will not have to finance GMS stock from his own funds. The advance payment is estimated of the first claim submitted and consists of a payment of £5.70 for each prescription item in the claim. Stock orders are mot taken into account when estimating this payment. The first months claim is paid in full approximately five weeks later. The advance payment is based on * 1 month's ingredient cost and is reviewed in February each year and adjusted up or down as necessary to bring it into line with the average 1 month's ingredient cost over the last 6 months of the previous year. The GMS (P)B for their accounting purposes, require the pharmacist to sign a certificate each year confirming the amount of the advance payment held by him. (Ref: Drug Tariff).

*An increase to 1.5 months was recommended by the official Arbitrator; because of Government cut-backs this has not been implemented as yet.)

2. **Code Book.**

The GMS code book is a positive list of items allowable on the scheme. With the exception of ostomy and urinary appliances, unless an item is included in the book it will not be paid for. Amendments to the code book are issued on a monthly basis and once or twice a year a new code book is issued incorporating all previous amendments. The coding of a prescription item identifies the item dispensed and is regarded by the Board as a certificate by the pharmacist of the accuracy of the claim. Pharmacists are advised to pay particular attention to the coding instructions detailed at the front of the code book. Failure to use the correct quantity codes can result in incorrect payments. (Ref: CPB 34). The GMS (P)B will only accept claims with direct entries in the coding section. Adhesive coding slips will not be accepted. (Ref: PB 138).

3. **Coding of extemporaneous preparations.**

If the extemporaneous code numbers shown in the front of the code book, are used, payment will be made only at the rate of 57p per 100ml for a liquid preparation and 67p per 100g for a solid preparation. If claiming a higher amount the uncoded sign should be used instead. Full details are included in the code book. Extemporaneous codes should not be used for preparations for which codes already appear in the book, even though they may have to be prepared extemporaneously. Where the quantity of an extemporaneous preparation is greater than100 computer units, the uncoded sign must be used. The actual ingredient cost will be reimbursed plus the extemporaneous fee. (Ref: Code Book).

4. **Uncoded Sign.**

The official uncoded sign (x) must be placed opposite each individual uncodeable item in the code number column, to indicate that the item has been supplied. As for example in the case of those ostomy and urinary appliances listed in the code book for which no code number is shown. The other instances where the uncoded sign should be used are listed in the front of the code book.

5. **Number of Items on Prescription.**

If more than eight items are ordered on a prescription form, the codes and quantities of the first eight items should be entered in the normal way. The remaining items should each be marked with the official uncoded sign (x) and the quantity supplied should be indicated on the form. (Ref: PB 121).

6. **Submission of Forms for Payment.**

Claims must be submitted monthly to arrive in the GMS(P)B office not later than the 7th of the month following the month in which they were dispensed. The procedure for filling in the summary form, which must be sent with the claim, is detailed in circular PB 208. Full details of the procedure for the submission of forms is included in PB 222.

7. **Method of Payment.**

Approximately seven weeks after submission of claims the pharmacist will receive a payment summary, listing, and VAT analysis. Those who have opted to be paid by cheque will receive the cheque with this mailing. Those who have opted to be paid by credit transfer, will have the money in their accounts at the same time. An Itemised Listing and

Reclaim Listing showing unpaid items, or items requiring further clarification, follows a few days later. Payment is estimated as follows:

Prescriptions: Ingredient Cost + Fee + VAT
Stock Orders: Ingredient Cost + 25% + VAT

8. **Fees.**

a. The GMS fees at present are as follows:-	1 Aug 96
Basic Fee	165.45p
(including allowance of 28.04p for container, obsolescence etc.)	
Phased dispensing: each part of the phased dispensing	165.45p
Non-dispensing in the exercise of professional judgement	165.45p
Controlled drugs (165.45p + £1.00)	265.45p
Extemporaneous	330.90p
Powders (6 basic fees)	992.70p
Ointments and creams (4 basic fees)	661.80p
Urgent and late up to midnight	458.67p
Urgent and late midnight to 8.00 am resident and non-resident	946.12p
Repeat Prescription Fee (for each part of 3 page set)	58.13p

b. These fees include the third phases (1.5%) of the Programme for Competitiveness and Work (PCW), i.e. from 1 Jun 96 to 30 Sep 96, and the special 3% increase for holders of the new contract, effective 1 Aug 96.

The other phases of the PCW are as follows:
1.5% for 3 months (from 1 Oct 96 to 31 Dec 96), and 1% for the next 6 months (from 1 Jan 97 to 30 Jun 97).

9. **Early Payment of High Cost Items.**

A pharmacist may claim early payment for a high cost item if the ingredient cost is £70.00 or over. Such claims if submitted by the 7th of the month following the month of dispensing, will be paid in approximately 3 weeks. The figure of £70.00 is adjusted from

time to time in line with the Consumer Price Index. The procedure for making such claims is described in circular PB 106.

10. **Expensive Preparations.**

When a pharmacist is left with the balance of as expensive preparation purchased for a GMS prescription he may recoup the cost of the balance, which must be in excess of £10, by applying to the Primary Healthcare Unit Pharmacist. The preparation must have been dispensed at least 3 months before the claim is made unless it will expire within that time. The original prescription and invoice must be submitted with the claim. This procedure is outlined in the Drug Tariff.

11. **Incomplete Prescriptions**

Where essential details such as dosage, quantity or the strength of the preparations to be supplied are missing from a prescription the prescriber should be contacted if possible and /or the prescription dispensed according to the procedure outlined in circular PB 111.

12. **Ostomy and Urinary Appliances - Submission of Claims.**

Claims for ostomy and urinary incontinence appliances which do not appear in the GMS list of Non-Drug Items, or which do not have GMS codes, should be submitted as uncoded items, marked with the uncoded sign, and with a copy of the invoice attached, in accordance with the procedure outlined in circular PB 217.

13. **Generics.**

Where a preparation has been prescribed by the generic name and where neither brand nor manufacturers names have been specified, the pharmacist is expected to dispense one of the less expensive preparations available. To assist the pharmacist in identifying these preparations the GMS(P)B supplies a booklet, showing, by means of bar charts, the comparative cost of the various preparations available. (Ref: PB 146).

14. **Parallel Imports.**

Where parallel import products is included on the GMS list it will be allocated a new code number to distinguish it from the original non-parallel imported product. Where a parallel imported product has been dispensed the pharmacist should ensure that the person coding the prescription is aware of the need to use the correct code. (Ref: PB 150).

15. **Request for Invoices.**

The GMS(P)B has a statutory obligation to establish the accuracy of claims by requesting invoices. Invoices are routinely requested when an unusually large quantity or an unusually expensive item has been supplied. Copies of invoices are also required to be submitted with claims for ostomy and urinary incontinence appliances which are not listed in the GMS list of Non-Drug Items. (Ref: PB 217).

16. **Extemporaneous Dispensing.**

As a general rule extemporaneously prepared formulations which are identical with or similar to excluded items will not be considered for payment. Exceptions are eye preparations similar to allowable preparations but which are unavailable in the strengths prescribed, e.g. Pilocarpine 5%, Physostigmine and Pilocarpine. In circumstances in which the patient number is not available (e.g. a new GMS patient not yet allocated a number) the prescriber should write 'STC' in the space provided for the GMS number. Properly completed forms presented in this manner will not be combinations. Ref: Payments Board's letter of 23 July 1983 - (issued to all Contractors).

17. **STP (Special Type Consultations).**

In circumstances in which the patient number is not available (e.g. a new GMS patient not yet allocated a number) the prescriber should write 'STC' in the space provided for the GMS number. Properly completed forms presented in this manner will not be returned to the pharmacist because of the absence of a patient number. (Ref: PB 120)

18. **Maternity and Infant Care Scheme Prescriptions.**

Prescriptions written on Maternity and Infant Care Scheme forms should be forwarded to the GMS(P)B for pricing. Such prescriptions should be sent with the GMS claim each month, in a separate bundle. The prescriptions are priced by the GMS(P)AB and sent to the appropriate Health Board for payment. Payment is on the basis of ingredient cost + 25% + container allowance. (Ref:; CPB 50).

19. **EEA (EC) Prescriptions.**

Temporary visitors from other EAC States who are insured employees, social security pensioners or their dependants requiring urgent medical treatment, may receive emergency

requirements free on GMS prescription providing that the items are included in the GMS code book. Items excluded from the BMS Scheme sill not be paid for. Doctors have been advised that repeat forms should not be issued. The prescription form should bear the patients name and address in his country of origin. The letters EEC should be entered where the patients GMS number is normally shown, or in the case of UK residents, their Social Security number. The claim should be submitted to P.O. Box 2923, GMS(P)B, with DCSS and LTI claims, before the 6th of the month following the month of dispensing. Payment will be made at Retail Prices plus an inclusive fee (currently £1.43) per item. (Ref: PB/90/PB 195).

20. **Amphetamine Preparations.**

Where an amphetamine-type preparation has been prescribed, the pharmacist should apply to the DOH Drugs Division, Hawkins House, Dublin 2, for a licence, quoting the patients name and address and GMS number, the quantity required and the prescriber's name and address. The DOH will thin notify the EHB Central Pharmacy, James's Street, and the item will be posted to the pharmacist with an invoice. The pharmacist will be reimbursed by the Payments Board in the normal way. (Ref: Drug Tariff).

21. **Dispensing Doctors' Stock Orders.**

In outlying areas a doctor may dispense for his own patients if there is no pharmacy within 3 miles of his centre of practice. The doctor obtains his supplies of medicines on a Stock Order (SO) form from a pharmacy within his area of practice. The doctor must first submit 3 copies of the SO to his Health Board. The Health Board then submits 2 copies to the pharmacist nominated by the doctor. Only items supplied on or after the date the SO was received by the pharmacist are eligible for reimbursement. An on-cost payment of 25% is made to pharmacists for items dispensed on SO's.

22. **Containers.**

a) It is a condition of participation in the scheme that the contractor shall supply all medicines in suitable containers. Capsules, tablets, etc. should where appropriate, be dispensed in their original packs or in rigid containers. Containers made from paper board materials will not be acceptable. (Ref: Drug Tariff).

b) Dispensing doctors have been instructed to order supplies of bottles, vials, etc. from their area Health Board and not on stock order forms. (Ref: CPB 23).

23. **Flat Rate Prices.**

Flat rate prices are paid for needles, syringes, lancets, dressings and some foods. They are listed in the GMS flat rate price list which gives details of the price being paid and the name of the manufacturer of the product to which the flat rate price applies. A price higher than the list price will **not** be paid, even if a more expensive product has been supplied. Amendments to the flat rate price list are made once a year, with effect from 1 Jan. An on-cost payment of 25% is made for syringes, needles and dressings supplied on stock order forms to doctors for use in their surgeries on GMS patients.

24. **Syringes and Needles.**

Disposable syringes (including insulin syringes) and needles as listed in the GMS flat rate price list may be supplied on GMS prescription or issued to participating doctors when ordered on the special syringe/needle order form. Glass syringes are not allowable on the GMS Scheme. (Ref:PB 92).

25. **Dressings.**

The GMS lists dressings under 3 categories.

a) Those containing scheduled preparations, e.g. Sofratulle, Fucidin, Intertulle, which appear in the main list of proprietaries in the GMS code book and which may be supplied on GMS prescription or to dispensing doctors when ordered on the dispensing doctors white Stock Order form.

b) Non-allergic adhesive tapes for use with ostomy appliances. These are listed in GMS flat-rate price list. They may be dispensed on GMS prescription where prescribed and supplied with ostomy appliances. They may also be supplied to dispensing doctors on the white Stock Order forms.

c) Dressings listed in the GMS Code Book under the heading 'dressings' and which may only be supplied on the pink syringe and needle Stock Order form to doctors for use in their surgeries on GMS patients. They are all listed under a generic name. These are

reimbursable at the flat rate prices as listed in the GMs flat rate price list, plus 25%. The adhesive tapes referred to in b. above are also included in this section.

26. **Pack Sizes.**

The pharmacist will be expected to dispense from the pack size closest to his normal monthly dispensing requirements. If he dispenses from a smaller pack size than is necessary, an appropriate deduction will be made from payments due to him. (Ref: PB67). Where the quantity of a preparation does not correspond with an original pack size and it is not feasible to supply the exact amount prescribed, the pharmacist, bearing in mind his statutory obligations, may supply the pack nearest to the quantity ordered. The only instance in which this ruling may be applied to packs of tablets or capsules is in the case of calendar packs of 28 or 30. These are interchangeable, i.e. when 28 are prescribed and the calendar pack is 30 tablets then 30 may be dispensed and vice versa.

27. **Pack Sizes Ostomy and Urinary Appliances.**

In the case of ostomy and urinary appliances, units should be supplied unopened as received from the supplier. e.g. for Hollister stoma bags which are packed in 30's:

if 50 are prescribed 60 should be supplied.
if 100 are prescribed 90 should be supplied.
(Ref: PB 111).

28. **Urgent Prescriptions.**

Where a prescription marked 'urgent' by the prescriber at the time of issue, has geen received and dispensed by the pharmacist outside contract hours, an additional urgent fee may be claimed, provided that the prescription is marked by the pharmacist with the date and the time of dispensing. One urgent fee will be paid per prescription regardless of the number of items on it. The amount of the urgent fee payable is determined by the time at which the prescription has been received and dispensed. (Ref: CPB 34/PB 59).

29. **Quantity to be Supplied.**

Participating doctors are expected by the GMS(P)B not to prescribe more than one month's requirements to be dispensed at one time, except in very special circumstances. (Ref:PB/177, PB176). The GMS Repeat Prescription provides for a maximum of 3 months medication to be dispensed in monthly instalments.

30. **Vat.**

In the case of medicines and appliances subject to VAT the amount of tax payable will be refunded in addition to the payment fee. The monthly payment sheet will show a breakdown of the total payment into ingredient cost, fees and VAT under each VAT rating. Where an item supplied is subject to VAT the same rate of VAT is also applicable to the fee payable in respect of that item. (Ref: CPB 48).

31. **Tax Certificate.**

The GMS(P)B is required to make a return to the Inspector of Taxes of all payments made to pharmacists during January to December of each year. A certificate of payments made will be sent to each pharmacist annually, showing the amount which has been advised to the Inspector of Taxes. (Ref: PB 79).

32. **Late Fees.**

The late fee provision was introduced to deal with a small number of exceptional situations where urgent dispensing was necessary, outside contract hours and where the doctor had not marked the prescription as being urgent. It is paid as compensation to the pharmacist for serious disturbance and is not intended to be an overtime payment for any prescription dispensed after hours. To qualify for a late fee the prescription must be marked with the date and time of dispensing (Ref: PB 69/PB 71/PB 98). A revised late fee arrangement was agreed in 1986. Details were circulated to members in circular PB 154.

33. **Withholding Tax (WT) Deduction.**

The GMS(P)B is obliged to deduct WT at the rate of 27% (at 1 Nov 96) from all fees paid to pharmacists, i.e. from dispensing fees and from the mark-up on items supplied on Stock Orders. Pharmacists are required to supply the Board with their income tax reference numbers. The GMS(P)B issues each pharmacist with a monthly F45 form which shows details of the payment and tax deducted. The amount of the WT deduction is also shown on the monthly payment sheet. The F45 forms should be kept safely as they will have to be submitted to the Revenue Commissioners when claiming a refund. (Ref: PB 163).

34. **GMS Repeat Prescription.**

The repeat prescription facility introduced on 1 Mar 91. provides for a maximum of three months supply to be dispensed in monthly instalments, using a three part prescription form. Controlled drugs (CD2 and CD3), and items which are intended to be dispensed once only, should not be prescribed on this form. If they have been prescribed in error on the repeat form, the form should be treated as an ordinary GMS prescription and dispensed once only; the unused part should not be returned to the patient. Repeat forms should be separated into Regular (fully coded) and Exception categories. (Ref: PB193, PB197, PB208, PB212).

35. **Unsigned Forms.**

The Board has discontinued the practice of returning unsigned prescriptions to pharmacists. Details entered on such forms are now keyed into the Board's computer system, but payment is withheld and the claim is reported on the Reclaim Listing, with the message **'Form not signed by Doctor'.** The procedure for reclaiming payment in respect of items dispensed of unsigned forms is described in circular PB226.

36. **Dental Treatment Services Scheme (DTSS).**

A prescribing facility for dentists participating in the DTSS, is limited to items listed in the 'Dental Practitioners List of Prescribable Medicinal Products'. A special DTSS prescription form must be used. The forms must be submitted with DCSS, LTI and EEA forms. Full details are included in circulars PB228 and PB230.

37. **Emergency Hospital Prescription Facility.**

This arrangement is intended to facilitate the dispensing, on the basis of a hospital prescription, of an emergency supply (maximum 7 days), to patients discharged from hospital late in the day, at weekends, or other times outside GP surgery hours, or who need to have a hospital prescription urgently dispensed. A special claim form must be filled in by the pharmacist, and submitted to the GMS(P)B with a photocopy of the hospital prescription. Where a generic form of the prescribed medicine is available, a generic should be dispensed. (Ref: PB239).

38. **Phased Dispensing.**

The pharmacist may claim a phased dispensing fee in respect of items which have to be dispensed in phases. The fee is payable for each dispensing necessary after the first

dispensing of the item. The fee may be claimed in circumstances where due to the stability or shelf life of the medication, phased dispensing is necessary. It may also be claimed, where (a) the prescriber has requested that a small initial supply (e.g. one week's supply) of a new drug therapy be dispensed, with a view to establishing the patient's tolerance to the treatment, before continuing on the full regime, or where the patient is considered to be incapable of safely and effectively managing their medication. (Ref: PB242).

39. **Non-Dispensing Fee.**

A fee may be claimed for non-dispensing, where the pharmacist in exercising professional judgement decides that a particular item should not be dispensed, e.g. where the patient already has a sufficient supply of the item. The non-dispensing code 79999 should be entered in the code column; the quantity column should be left blank. When claiming this fee, the pharmacist must make a hand-written note on the form, indicating the reason for not dispensing the item. (Ref: PB242).

APPENDIX 9

One page only

Fees and Allowances payable to Pharmacists in the General Medical Services Scheme in Ireland.			
Fee	**'Old'**	**From 1/6/96**	**From 1/7/96**
Standard Fee	158.93p	161.45p	165.45p
With effect from 1 Jun 96 133.41 fee + 28.04p allowance.			
With effect from 1 Jul 96 £137.41p fee + 28.04p allowance.			
Phased Dispensing.			
Each part of phased dispensing.			165.45p
Non-dispensing-Exercise of professional judgement			165.45p
Controlled Drugs.			265.45p
Extemporaneous Fee.	317.86p	322.90p	330.90p
Powders.	317.86p		992.70p
Ointments and Creams.			661.80p
Urgent/late Fee (before midnight).	439.40p	446.13p	458.67p
Dispensing other than between 00.00 and 08.00 Hrs).			
With effect from 1 Jun 96 284.68p + 161,45p.			
With effect from 1 Jul 96 293.22p + 165.45p			
Urgent/Late fee (after midnight).	905.66p	919.38p	946.12p
Dispensing getween 00.00 Hrs. and 08.00 Hrs).			
With effect from 1 Jun 96 737.93p 161.45p.			
With effect from 1 Jul 96 780.67p 165.45p.			
Repeat Prescription Fee. (Each part of repeat set).	55.60p	56.43p	58.13p

APPENDIX 10

Fees and Allowances payable to Community Pharmacists in Ireland under the Drug Cost Subsidisation Scheme, Long Term Illness Scheme and in respect of GMS prescriptions dispensed for visitors from the European Economic Area (EEA).			
Fee	**'Old'**	**From 1/6/96**	**From 1/7/96**
Standard Fee	1.43	1.45	1.49
Extemporaneous Fees (Excl VAT)			
Eye Drops up to 30 ml	6.49	6.59	6.79
Ear and Nasal Drops	5.19	5.27	5.43
Mixtures			
Up to 100ml	5.20	5.28	5.44
101ml to 200ml	7.12	7.23	7.45
201ml to 300ml	8.10	8.22	8.47
301ml to500ml	10.70	10.86	11.19
Lotions			
Up to 100ml	5.18	5.26	5.42
101ml to 200ml	7.24	7.35	7.57
201ml to 300ml	8.13	8.25	8.50
301ml to 500ml	10.79	10.95	11.28
Ointments and Creams			
Up to 30g	6.52	6.62	6.82
31g to 60g	8.87	9.00	9.27
61g to 120g	11.38	11.55	11.90
121g to 240g	13.73	13.94	14.36
241g to 500g	16.28	16.52	17.02
Powders			
Up to,20	5.00	5.08	10.16
Thereafter per 20 (pro rata)	3.00	3.05	6.10

One page only

APPENDIX 11

List of agreed medicinal products to be dispensed under High Tech Scheme in Ireland.

Medicine	Cost per month	Supplier
Pulmozyme 2.5 mg.	£673 to £1346 per month	Roche
Cyclosporin	£165 per month	Cilag (Eprex) Boehringer Mann (Recormin)
Interferon beta	£749 per month	Schering (Betaferon)
Colony stimulating factors (Drugs used to treat neutropenia)	£82 to £1,491 per month	Amgen, Roche (Neupogen) Chugai (Granocyte) Sandoz, Schering Plough (Leucomax)
Aldesleukin	£880 to £3,813	Eurocetus (PROLEUKIN)
Growth Hormones	£768 per month	Pharmacia (Genotropin) Novo nordisk (Norditropin) Serono (Saizen) Lilly (Humatrope)
GnRH Analogues (used in the treatment of prostate cancer and endometriosis / infertility)	£125 per month	Zeneca (Zoladex) Lederle (Prostap) Hoechst (Suprecur) Syntex (Synarel) Ipsen (Decapeptyl SR)
Interferons alpha	£234 per month	Schering - Plough (Intron A), (Viraferon) Roferon A (Roche) Wellcome (Wellferon)
Gonadotropins FHS/LH/HCG Invitrofertilisation treatments	£600 to £1,000 per cycle (month)	Organon (Pregnyl), (Humegon), (Normegon) Serono (Profasi) (Pergonal), (Metrodin) Paines and Byrne (Gonadotraphon LH)
Ocreotide	£554 to £1,109 per month	Sandoz (Sandostatin)
Vepesid (Etoposide)	Approx. £108 per cycle (200mg daily for 5 days	Du Pont
Zavedoz (Idarubicin)	£30 to £150 per capsule	Pharmacia
Calsynar	Up to £218 per month (100 IU daily for 3 to 6 months)	Rhone Poulenc Rorer
Calcitare 160 IU vial	£360.69 per month (160 IU daily for 3 to 6 months)	Rhone Poulenc Rorer
Bonefos 400mg caps	£177.43 per month (4 caps per day)	Boehringer Ingelheim
Drogenil tablets 250mg	£115.54 per month (250mg tds)	Schering - Plough
Casodex 50mg	£127.92 per month	Zeneca
Estracyte 140mg Capsules	Approx. £5.20 per day or £156 per month (at 560mg daily)	Pharmacia
Vancocin 125mg 250mg	£137.5 per 10 days (125mg qid for 7 to 10 days).	Lilly

APPENDIX 12

CRITERIA FOR HIGH TECH MEDICINAL PRODUCTS WHICH MAY BE CONSIDERED FOR ADMISSION TO THE SCHEME IN IRELAND.

Any medicines to be included or deleted from this scheme will be the subject of agreement between the Department of Health, the Irish Pharmaceutical Healthcare Association and the Irish Pharmaceutical Union. The list of medicines will be reviewed on a regular basis by the above parties. This scheme will only consider medicinal products in respect of which their principal use is for the treatment of the primary medical condition for which they are authorised.

The following criteria may be considered as part of the review process:-

(1) Medicinal product developed by means of one of the following biotechnological processes.

(a) Recombinant DNA technology.

(b) Controlled expression of gene coding for biologically active proteins in procaryotes and eucaryotes including transformed mammalian cells.

(c) Hybridoma and monoclonal antibody methods, or

(2) Medicinal products developed by other biotechnological processes which, in the opinion of the European Medicines Evaluation Agency constitute a significant innovation, or

(3) Medicinal products which because of their particular characteristics have been considered as requiring authorisation in the EU central authorisation system, or

(4) Medicinal products containing a new chemical entity which provides a significant new therapeutic use, or

(5) Medicinal products in respect of which the prescription or the original prescription should be issued by appropriate medical specialist working in a hospital setting.

APPENDIX 13

REGULATIONS DEFINING THE CLINICAL PHARMACY SERVICES TO BE PROVIDED BY COMMUNITY PHARMACISTS IN IRELAND

(1) The pharmacy contractor shall prior to the dispensing of each prescription, and prior to the supply of the medicine, ensure that a pharmacist reviews the medicine therapy of the individual for whom the prescription is issued.

(2) The review provided for in sub-clause (1) shall include screening for any potential drug therapy problems, which may arise out of the use of the medicine(s) prescribed. The problems to be screened for shall include those which may be due to therapeutic duplication, drug-drug interactions (including serious interactions with non-prescription or over-the-counter medicines or foods), incorrect drug dosage or duration of drug treatment, drug-allergy interactions and clinical abuse and/or misuse.

(3) (i) The source of standards for such review shall be:-

(a) the British National Formulary;

(b) the Summaries of Product Characteristics, incorporated in the product authorisations granted under the Medical Preparations (Licensing and Sale) Regulations, 1996 (SI No.43 of 1996) or an authorisation granted or renewed by the European Commission in accordance with EU Council Regulation No. (EEC) 2309/93 laying down Community procedures for the authorisation and supervision of medicinal products;

(c) any guidance notes published by the National Medicines Information Centre;

(ii) Other standards for such review as may be agreed and notified from time to time as provided for in sub-clause (3) of this agreement.

(4) The review provided for in this clause shall also include an examination of the rational and cost effective use of the medicine prescribed, including the choice of the medicine and the potential for wastage.

(5) Following completion of the review provided for in sub-clause (1) the pharmacist shall offer to discuss with the individual for whom the prescription is issued, or with the carer of such person, all such matters as the pharmacist, in the exercise of his /her professional judgement, deems significant including the following :

(a) the name and description of the medicine;
(b) the dosage form, the method and route of administration and the duration of therapy;
(c) any special directions and precautions for the correct preparation, administration and use of the medicine(s);
(d) the importance of compliance with the directions for use;
(e) any common severe side-effects and adverse reactions or interactions and therapeutic contra-indications that may be encountered, including their avoidance and the action required should they occur;
(f) techniques for self-monitoring during therapy and the need for patient compliance;
(g) proper storage of the medicine;
(h) prescription repeat information (as necessary);
(i) action to be taken in the event of a missed dose;
(j) methods for the safe disposal of the medicine in the event of the course of treatment not being completed; and
(k) any other matters which may be included or referred to in the patient information leaflet supplied with the medicine.

(6) The pharmacy contractor shall ensure that pharmacist manpower in the pharmacy is sufficient in order to fully discharge the obligations of this clause and the agreement as a whole.

(7) The terms of this clause 9 shall come into effect, not late than 1 August 1996. A programme of continuing education for pharmacists engaged in the delivery of community pharmaceutical services under the Health Act, 1970 shall have been initiated prior to that date.

(8) In this clause the term 'drug' includes 'medicines'.

(9) The pharmacy contractor shall produce to the chief executive officer such evidence as the chief executive officer may require to confirm that the pharmacy contractor is registered in accordance with the terms of the Data Protection Act, 1988. The board and the pharmacy contractor shall each ensure their compliance with the Data Protection Act, 1988 and any amendments thereto and any regulations enacted under that Act. The board and the pharmacy contractor shall further ensure that persons having access to data arising on foot of this agreement will comply with the provisions of the said legislation.

In particular, the pharmacy contractor shall provide to the chief executive officer, evidence that the registered purpose for which the data is kept includes facilitating the board and the General Medical Services (Payments) Board in collecting and assimilating information in respect of and monitoring the use and dispensing of medicines by pharmacy contractors under the terms of this agreement.

APPENDIX 14

PROFESSIONAL SERVICE TO BE PROVIDED BY THE COMMUNITY PHARMACIST IN RESPECT OF CAPITATION FEE UNDER THE HIGH TECH MEDICINAL PRODUCTS SCHEME IN IRELAND

(1) The community pharmacist/supervising pharmacist shall prior to the dispensing of each prescription, and prior to the supply of the medicine, review the medicine therapy of the individual for whom the prescription is issued.

(2) The review shall include screening for any potential drug therapy problems, which may arise out of the use of the medicine(s) prescribed. The problems to be screened for shall include those which may be due to therapeutic duplication, drug-drug interactions (including serious interactions with non-prescription or over-the-counter medicines or foods), incorrect drug dosage or duration of drug treatment, drug-allergy interactions and clinical abuse and /or misuse.

(3) (i) The source of standards for such review shall be

(a) The British National Formulary;

(b) The Summaries of Product Characteristics, incorporated in the product authorisations granted under the Medical Preparations (Licensing, and Sale) Regulations, S1 No. 43 of 1996 or an authorisation granted or renewed by the European Commission in accordance with EU Council Regulation No. (EEC) 23/09/93 laying down Community procedures for the authorisation and supervision of medicinal products;

(c) any guidance notes published by the National Medicines Information Centre;

(ii) Other standards for such review may be agreed and notified from time to time, under Clause 19(3) of the Contract.

(4) The review shall also include an examination of the rational and cost effective use of the medicine prescribed and the potential for wastage,

(5) Following completion of the review, the pharmacist shall offer to discuss with the individual for whom the prescription is issued, or with the carer of such person, all such matters as the pharmacist, in the exercise of his/her professional judgement, deems significant including the following;-

(a) the name and description of the medicine,

(b) the dosage form, the method and route of administration and the duration of therapy:

(c) any special directions and precautions for the correct preparation, administration and use of the medicine(s):

(d) the importance of compliance with the directions for use.

(e) Any common severe side-effects and adverse reactions or interactions and therapeutic contra-indications that may be encountered, including their avoidance and the action required should they occur;

(f) techniques for self-monitoring during therapy and the need for patient compliance;

(g) proper storage of the medicine;

(h) prescription repeat information (as necessary);

(i) action to be taken in the event of a missed dose;

(j) methods for the safe disposal of the medicine in the event of the course of treatment not being completed,

(k) any other matters which may be included or referred to in the patient information leaflet supplied with the medicine.

APPENDIX 15

REGULATIONS DEFINING THE PLANNED DISTRIBUTION OF COMMUNITY PHARMACIES IN IRELAND

1. COMMUNITY PHARMACY CONTRACTOR AGREEMENT

The Health (Community Pharmacy Contractor Agreement) Regulations 1996 (Statutory Instrument No.152) set out the circumstances in which any new community pharmacy contractor agreement ('new opening') will be granted and what conditions will apply to the relocation of an existing pharmacy, with effect from 30 May 1996 the date the Regulations were signed.

2. NEW OPENINGS.

a **Public Health Need.**

In general terms a new contract ('new opening') will not be granted unless **a definite public health** need can be established for community pharmacy services in the area in which the premises are situated.

b **Urban or Large Towns (Population 3,000+).**

(1) An existing pharmacy in an urban or large town (population 3,000+) is entitled to **a catchment area** with a population of **not less than 4,000.**

(2) The **distance** between a premises in respect of which a new contact is sought and the nearest existing community pharmacy must be at least 250 metres door to door.

(3) An applicant for a new contract ('new opening') in that town must identify a population of 4,000 which is not serviced by as existing pharmacy.

c **Other (e.g. Rural) Areas (Towns with population less than 3,000).**

(1) In other (e.g. Rural) areas a pharmacy is entitled to **a catchment area of 2,500 or** more.

(2) The **distance between** a premises in respect of which a new contract is sought and the nearest existing community pharmacy must be at least 5 kilometres.

(3) If the population of a small town grows to 3,000+ then the same conditions will apply as for urban or large towns.

d **Any 'new opening' must**

(1) have free and direct **access to the public road** at all times:

(2) meet the requirements of the **pharmacy contractor agreement**

(3) meet the standards laid down from time to time by the **Pharmaceutical Society of Ireland.**

e **Supervising Pharmacist.**

The nominated supervising pharmacist in respect of a 'new opening' is the pharmacist under whose direct supervision the community pharmacy is conducted and he/she;

(1) must have at least 3 years post-qualifying experience in the practice of community pharmacy,

(2) must be able to manage a pharmacy;

(3) must not be acting in a similar capacity in respect of any other pharmacy;

A pharmacist having this required experience and ability must be maintained in the position of supervising pharmacist at the 'new opening' concerned.

f. **Transitional Arrangement.**

If a CEO received an application for a community pharmacy agreement ('new opening') before 1 Jan 1997 showing that the applicant, in the 12 months prior to 31 May 1996, had entered a financial commitment for the procurement of premises for the specific purpose of opening a community pharmacy, then he shall grant the contract if he is satisfied that such a commitment was, in fact, entered into.

3. **Relocations.**

In general terms relocation of a community pharmacy is restricted to

a. a temporary relocation (normally not more than 12 months) for the purpose of renovation or refurbishment.

b. permanent relocation necessitated by a decision of a statutory authority, not a HB or CEO.

c. where the HB or CEO moves or, approves the move, of other health services which may adversely affect the viability of an existing pharmacy at its present location;

d. where two or more pharmacies amalgamate;

e. relocation to an adjacent premises to provide a better service.

f. other exceptional circumstances.

Relocations must be approved by the CEO. The new premises and its equipment, facilities, staff, etc. must meet the requirements of the community pharmacy contractor agreement including such standards as are published form time to time by the PSI. Any relocated pharmacy must not be more than 250 metres from its previous location and must have regard to the impact it may have on existing pharmacies.

APPENDIX 16

PART 2 OF THE (CONSOLIDATED) PHARMACY ACT 1984 ESTABLISHING, CLOSING DOWN AND MOVING PHARMACIES, BRANCH PHARMACIES AND RETAILERS' SHOPS IN DENMARK

4 (1) The Minister for Health makes decisions regarding establishing, closing down and moving pharmacies and branch pharmacies. With a view to supplying medicinal products or other products to hospitals or institutions, affiliated branch pharmacies may, provided the owner of the hospital assents, and with the permission of the Minister for Health, be established in hospitals and institutions which are covered by Section 3 of The Hospital Act.

(2) A pharmacy may be closed down, provided

1) the pharmacy licence expires or is revoked, cp Section 22 and Section 24-26
2) the proprietor pharmacist consents, or
3) the proprietor pharmacist, within the same region, cp Annex A, is offered a licence to another pharmacy.

5 (1) When a pharmacy or branch pharmacy is established or moved, the Minister for Health shall indicate the area in which the pharmacy or branch pharmacy must be situated.

(2) The location of pharmacies and branch pharmacies shall be approved by the Minister for Health.

6 The National Board of Health may stipulate a time limit for establishing or moving a pharmacy or a branch pharmacy.

7 (1) The National Board of Health shall give permission and orders for establishing, closing down and moving a pharmacy shop.

(2) proprietor pharmacist can establish and close down retailers' shops and delivery facilities within the pharmacy's natural supply area. The proprietor pharmacist shall inform The National Board of Health about such an establishment closing down.

(3) Where reasons of adequate distribution of medicinal products speak in favour thereof, The National Board of Health may order the establishment, moving or closing down of a retailer's shop or delivery facility.

(4) The National Board of Health may, in special cases, order that a pharmacy shop or retailer's shop be transferred from one pharmacy to another.

(5) The location of the pharmacy shop shall be approved by The National Board of Health.

8 In special cases, The National Board of Health may give permission, subject to specified conditions for a physician to distribute to his patients medicinal products and other products bought at a pharmacy indicated in the permission.

9 (1) Veterinarians who have the right to practice in Denmark may distribute medicinal products bought at a Danish pharmacy to animals which they have under treatment.

(2) The National Board of Health may lay down regulations on the access of veterinarians, for animals under their treatment in this country, to distribute medicinal products which have been lawfully purchased in one of the other states which have ratified or acceded to The EEA - Agreement.

(3) The Minister for Agriculture lays down regulations on the handling of medicinal products for animals by veterinarians.

10 In adopting decisions pursuant to this Part of the Act, the Minister for Health and The National Board of Health shall ensure reasonably easy and safe access to medicinal products at reasonable prices and costs to society, and see that the individual pharmacy shall have the opportunity to obtain a reasonably satisfactory financial result.

EXTRACT PART 2 OF (CONSOLIDATED) PHARMACY ACT, 1984 (DENMARK).

APPENDIX 17

PART 3 OF THE (CONSOLIDATED) PHARMACY ACT 1984

TASKS OF PHARMACIES IN DENMARK

11. A pharmacy licence entails an obligation to:

1) retail distribution of pharmacy - only medicinal products to consumers,
2) retail distribution of not pharmacy - only medicinal products on prescription to consumers,
3) procurement and distribution of extempore medicinal products, i.e. medicinal products for individual patients stating a contents description and giving no other indication of name, cp. however 13 (2),
4) information about medicinal products, rational use and storage of medicinal products to consumers, health professionals and authorities,
5) collection of waste of medicinal products from consumers and health professionals with a view of destruction of such waste,
6) provide information in machine - readable form according to regulations laid down by the Minister for Health about the turnover, etc. of medicinal products, etc. to The National Board of Health and The National Health Security Organisation or to another administration authority according to decisions taken by the Minister for Health,
7) acceptance of pharmacist students, pharmacy technician pupils and other persons in training, cp Section 34 (2 and 3), whose education will give access to later employment in the field of distribution of medicinal products, for on - the - job-training and instruction.

(2) The Minister for Health or the administration authority appointed by The Minister for Health to receive the information referred to in 11 (1) (6) may make the information public.

12. A pharmacy licence entails a right to:-

1) manufacture of extempore medicinal products, cp however 13 (2),
2) service and health promotion activities which are naturally associated with pharmacy business,
3) retail distribution of not pharmacy - only medicinal products to consumers,
4) manufacture of and retail distribution of other products to consumers which are naturally and expediently distributed by pharmacies.

(2) A pharmacy shall, unless special circumstances exist, collect a fee for the tasks mentioned in subsection 1, No. 2. The fee shall at least cover the cost of performing the tasks.

13. Pharmacies may only in special cases and with the permission of The Minister for Health perform other tasks than those covered by Sections 11 and 12.

(2) Pharmacies may not manufacture and distribute extempore medicinal products which may be substituted with medicinal products with a marketing authorisation.

14. Proprietor pharmacists, associations of proprietor pharmacists or companies owned by proprietor pharmacists may not participate in the manufacture of proprietary medicinal products and cannot obtain marketing authorisation for proprietary medicinal products.

EXTRACT PART 3 OF (CONSOLIDATED) PHARMACY ACT, 1984 (DENMARK).

APPENDIX 18

PART 13 OF THE (CONSOLIDATED) PHARMACY ACT 1984

PROVISIONS ON SUPERVISION AND CONSULTANTS IN DENMARK

64.(1) The Minister for Health may delegate his powers according to this Act to The National Board of Health.

(2) The Minister for Health may lay down regulations on complaints about the decisions of The National Board of Health, including regulations on the time limit stipulated for complaints.

65.(1) The National Board of Health shall supervise that the Act and the rules issued in pursuance thereof are observed. However, supervising the handling of medicinal products by veterinarians shall be carried out by the Veterinary Directorate.

(2) The National Board of Health shall supervise and control pharmacy units. Representatives of The National Board of Health, shall subject to proper identification and without a court order, have access to premises and to accounts, cp. Section 47, which are relevant to carrying out the inspection.

(3) The National Board of Health may freely take or request samples for the purpose of examining medicinal products and other products distributed by pharmacies, etc.

(4) The National Board of Health may order a proprietor pharmacist or a hospital pharmacist to remedy deficiencies ascertained at the inspection, and may fix a time limit for remedying such deficiencies.

(5) On presentation of appropriate identification and without a court order the representatives of the Veterinary Directorate have access to pharmacies. The representatives of the Veterinary Directorate may demand that all prescriptions from veterinarians be presented or in copy handed over.

66. For the purpose of The National Board of Health 's statement to the Minister for Health concerning the regulations established according to Section 44 regarding retail prices for pharmacies' sale of medicinal products, seven consultants are appointed to The National Board of Health. They are appointed by the Minister for Health for a period of four years at a time following recommendations from The Federation of County councils in Denmark, The City of Copenhagen and Frederiksberg Municipality jointly, The Competition Council, The Danish Pharmaceutical Association, The Danish Chamber of Commerce, The Association of Danish Pharmaceutical Industry and The Association of Pharmaceutical Industries in Denmark, jointly and The Consumer Council and The Danish Farmers Union, The Agricultural Council of Denmark and The Danish Family Farmers Association, jointly.

67.(1) In cases concerning the granting of pharmacy licences, The National Board of Health takes advice from three consultants. These consultants shall be appointed for a period of four years at a time by the Minister for Health following the recommendations of the Danish Pharmacists' Association, the Association of Danish Pharmacy Technicians and the Danish Pharmaceutical Association.

(2) In cases concerning the appointment of hospital pharmacists, The National Board of Health takes advice from the two consultants mentioned in subsection 1, who are appointed following the recommendation of the Danish Pharmacists' Association and the Association of Danish Pharmacy Technicians as well as one consultant who is employed at a hospital pharmacy and who shall be appointed by the Minister for Health for a period of four years at a time following the joint recommendation of the owners of hospital pharmacies.

(3) A substitute shall be appointed for each consultant according to the same rules which apply to the appointment of consultants.

(4) The consultants shall only give advice as to the suitability of the individual applicant in relation to the operation of the available pharmacy licence in question or as head in charge of the hospital pharmacy in question.

68.(1) The Board of Arbitration shall make decisions in such cases as are described in Part 5. The Board shall determine the distribution of costs between the parties incidental to a case.

(2) The Board shall consist of three impartial members who are appointed by the Minister for Health for a period of four years at a time. The chairman shall fulfil the conditions for appointment as a judge. A representative elected by each of the parties shall be appointed to the Board in each individual case. A substitute shall be appointed for each member according to the rules which apply to the appointment of members.

(3) The Minister for Health may lay down the rules of procedure of the Board.

69.(1) Section 152 and Section 264b of the Penal Code shall apply correspondingly to :

1) members and substitutes of the Board mentioned in Section 68,
2) experts giving their testimony to the Board,
3) representatives mentioned in Section 68(2),
4) assistants to the persons mentioned under No. 1 - 3, and
5) consultants mentioned in Sections 66 and 67.

(2) Any information received by the persons mentioned in subsection 1 in connection with these activities shall be considered confidential.

EXTRACT PART 13 OF (CONSOLIDATED) PHARMACY ACT, 1984 (DENMARK).

APPENDIX 19

EXEMPLAR PROFIT AND LOSS ACCOUNT FOR PHARMACY

(Dispensing items per annum (i.e. patients, i.e. items per month)

Income	£	**Expenditure**		£
Items(dispensings)		Wages and NIC(70% of gross)		
Pre-reg allowance		Rent and rates	"	
Professional allowance		Insurance	"	
Other fees (inc. appliances,		Motor expenses	"	
extemporaneous, etc.)		Light and heat	"	
Other allowances (PMRs		Telephone	"	
Residential Homes)		Replace/renew	"	
Stock orders		Postage/advertising	"	
O_2 fees		Prof. subs.	"	
		Accountancy	"	
Gross NHS income		General expenses	"	
		Depreciation	"	
		Total		
		Net Income (loss)		

NHS reimbursement of ingredient costs
from [127]Maguire, 1996

APPENDIX 20

TOP DOWN MODEL ONE - A MARK-UP METHOD ONLY

In Scotland in 1995/6 there were on average 10 dispensings per head of population. Therefore, a pharmacy carrying out 10,000 dispensings per year served on average a population of 1,000 [129]. A pharmacy carrying out 10,000 dispensings per year, carried out 833 per month (10,000 ÷ 12). With an NIC of £8.11 per dispensing, such a pharmacy had a total NIC reimbursed of £81,100 per annum. That is 10,000 x £8.11 (Table 12). Similarly a pharmacy carrying out 20,000 dispensings in the year (1,666 per month) served a population on average of 2,000 and was reimbursed an NIC of £162,000 (20,000 x £8,11) (Table 13 and a pharmacy carried out 40,000 dispensings (3,250 per month serves a population of 4,000 on average, and had an NIC reimbursement of £324,400 (Table 14). How the fee income is derived in all these cases and how the costs are allocated are also detailed in Tables 12,13 and 14.

In these three cases the total NHS income is £81,100 plus the fee income of £20,927 for a pharmacy carrying out 10,000 dispensings per annum (i.e. £102,027), £162,200 plus a fee income of £37,004 (i.e. £199,204) for a pharmacy carrying out 20,000 dispensings per annum, and £324,400 plus a fee income of £69,806 (i.e. £394,206) for a pharmacy carrying out 40,000 dispensings per annum (see Tables 12,13 and 14). The figures of £102,027, £199,204 and £394,206 are the proportion of the national pharmaceutical vote which they receive.

Replacing all fees and allowances with a mark up of 14.1% would give these pharmacies a total NHS income of :-

$\frac{14.1}{100}$ x £102,027 = £14,385 for a pharmacy carrying out 10,000 dispensings per annum.

$\frac{14.1}{100}$ x £199,204 = £28,087 for a pharmacy carrying out 20,000 dispensings per annum.

$\frac{14.1}{100}$ x £394,206 = £55,583 for a pharmacy carrying out 40,000 dispensings per annum.

It should be noted that a mark up of 14.1% which is that which pertained in 1994/95 and has decreased since then is very low compared with other countries (see Chapter 8) and is considered by the profession to be too low to support a viable NHS business. Nothing in this study indicates otherwise.

This compares with the total NHS gross income which such exemplar pharmacies have under the present system of:-

- £20,927 for a pharmacy carrying out 10,000 dispensings per annum.
- £37,004 for a pharmacy carrying out 20,000 dispensings per annum.
- £69,806 for a pharmacy carrying out 40,000 dispensings per annum.

Any additional income derived from the receipt of the above average discounts on total purchase of products is uncovenanted profit and the Government tries to eliminate this as far as is possible. However, it should be noted that large multiples are vertically integrated companies and above average discounts are earned by the wholesale arm of the company (which has no NHS contract) and not by the contracted pharmacy. It has not, therefore, been possible to include this consideration in the calculation.

It is emphasised, therefore, that there is no income, in theory, derived from the reimbursement of the products supplied. Thus, when products are purchased for an NIC of £81,100 in a full year, the NHS reimburses £81,100. The difference between the GIC and the NIC is the average discount applied nationally. It is recovered, however, on a sliding scale depending on the number of dispensings carried out by the pharmacies concerned. In spite of this, a contracted pharmacy, which receives a discount larger than the national average on its sliding scale on the products purchased, will be reimbursed greater than the average NIC, and one which receives a lower discount will be reimbursed lower than the national average NIC. It must be emphasised that the discount is calculated on all purchases and not on individual products.

APPENDIX 21

TOP DOWN MODEL TWO - A SINGLE FEE STRUCTURE

With a global sum of £72M and a figure of 54M for the annual number of dispensings, a standard fee of £1.34 would result (see above).

The NHS income in Tables 12, 13 and 14 would now become £13,400, £26,800 and £53,600.

- £13,400 for a pharmacy carrying out 10,000 dispensings per annum.
- £26,800 for a pharmacy carrying out 20,000 dispensings per annum.
- £53,600 for a pharmacy carrying out 40,000 dispensings per annum.

In all cases the income would, as expected, be lower than the present system as previously explained the costs would or could not be significantly reduced (see above). Under the conditions of this model only the very large pharmacies with a much higher than average number of dispensings per annum, or those who cut costs considerably would gain any increased income, under the circumstances of the model. All those pharmacies with dispensings which were average, below average, or marginally above average would have reduced incomes.

The reimbursement of the NIC of the products supplied would be unaltered.

APPENDIX 22

EXTRACT FROM TARIFF OF FEES FOR THE TREATMENT OF PATIENTS BY GENERAL MEDICAL PRACTITIONERS DENMARK 1957

25. *Tariff I: capitation fees and extra payments*

(1) The annual capitation fee per member, with or without children, is 16.70Kr. For members designated as suffering from a chronic disease this amount is increase by 50 per cent.

(2) In addition the following services are remunerated separately in accordance with the conditions laid down in Tariff II:

(a) maternity services and management of abortion: paragraph 28(7);

(b) first treatment of major wounds: paragraph 28(4)(b);

(c) injection of cortico-steroids in major joints: paragraph 28(4)(c);

ETC.

26. *Tariff I: night and holiday services*

(1) Where medical care is provided in a case of sudden illness, sudden deterioration in a patient's condition, accident, etc., requiring immediate treatment, and the services are requested and must be provided between 6 p.m. and 8 a.m. or on Sundays or public holidays (specified), remuneration is payable under Tariff II with a 60 per cent increase for consultations and visits.

ETC.

27. *Tariff I: services provided without payment*

(1) The sickness fund supplies free of charge receipt forms, certificates, etc., as listed in the annual reports of the funds concerned (specified), and pays for bandages use for first treatment.

(2) The doctor signs without payment control forms for the use of sickness funds in connexion with the payment of sickness allowance.

28. *Tariff II: fees*

Payment shall be made for individual items of service at the following rates:

(1) Consultation ..... 4.55kr.

Telephone consultation ..... 3.35kr.

Repeat prescription ..... 2.60kr.

(2) Consultation with long or special examination.. ..... 6.90kr.

This head covers only the following items:

(a) test meals;

(b) taking blood from veins for special tests (W.R., gonococcal reaction, precipitation, blood sugar);

(c) microscopic or bacteriological investigations;

test of sight or glasses

(d) Extraction of teeth in accordance with the current dental agreement [Fees specified]

(4) (a) Minor surgical procedures..... 9.25kr. each

This head covers only the following items:

(1) reduction of paraphimosis;

(2) catheterisation of bladder;

(3) tapping of hydrocele;

(4) removal of foreign bodies under local anaesthetic from the eyes, aural passages, nose and throat.

(5) removal of wax from ears, stomach irrigation, taxis without anaesthetic;

ETC.

(6) Major surgical procedures:

(a) tapping of fluid from abdomen, pleural cavity, or major joint 20.75kr.

(b) removal of tonsils 18.45kr.

(c) removal of adenoids 18.45kr.

(d) tonsils and adenoids together 24.25kr.

ETC.

(NB. at that time 1kr. = 1/- (5p))

APPENDIX 23

ASSUMPTIONS USED IN BOTTOM UP MODEL FOUR

1. Assume that each patient should be seen by a clinically trained and educated pharmacist of equivalent to an 'F' grade hospital pharmacist. (£30,000 per annum including employer's cost).

2. Three models will be defined which will assume that on average each patient should have 2 minutes, 5 minutes and 10 minutes spent with them.

3. Assume that the pharmacist will work to the Noel Hall definition of supervision.

4. It follows that it is assumed that all physical aspects of dispensing will be done by a technician 'including checking' subject to a pharmacist audit which is written and agreed by all concerned (including the Government on behalf of the patient).

5. Assume using hospital as an exemplar that the capital cost of the premises where the service emenates from is £0.25M and that the return on such capital should be at the determined rate for NHS Trusts. (currently 6% net).

6. Assume that 70% of income comes from dispensing and 30% from the sale and/or supply of OTC medicines etc.

7. Assume all P medicines are sold and /or supplied from a pharmacy.

8. Assume that a second junior pharmacist is available when the population served is greater than 10,000.This should be at hospital grade A or B (£16,000p.a).

9. Assume that the basic target income of the proprietor/owner (public or private) is similar to that of a similarly educated professional in other health care disciplines.

10. Do not assume that the present number of registered pharmacists is a confining parameter.

11. Assume that the service will be provided from registered pharmacy premises. Do not assume that they will be located as at present.

12. Assume that the number of prescription items dispensed is a proxy for the number of patients served.

13. Assume "no profit" from the sale of dispensed NHS medicines..

14. Assume that there is a 6% net return on capital invested in stock and in property.

15. Assume that the average stock held is £15,000. This is based of the average cost of items currently dispensed and a stock turnover of twelve times per year.

16. Assume one qualified technician at £15,000p.a. and one student technician at £6,000p.a. per pharmacy serving a population of 10,000.

17. Assume one pharmacy pre-reg. student per 10,000 population at £10,000p.a.

18. Assume a working day of 8 hours and a working week of 40 hours.

19. Assume an emergency cover of 16 hours per week provided by a different contracted pharmacist or pharmacists (hospital grade D).

20. Assume two full time equivalent "counter-assistants" (trained) to serve 10,000 population. One more for higher population.

21. Assume mark up of 35% on OTC medicines.

22. Assuming that each patient visits the pharmacy 10 times per year for prescribed medication on average (Current statistics states that each member of the population receives approximately 10 prescriptions per annum - rounded up to a whole number).

23. Assume also that each patient also visits the pharmacy 10 times per year for advice etc. including OTC purchases. These patients will receive the same 10 minutes of counter assistant's time and 2 minutes of pharmacist's time on average. This results in 100,000 x 10minutes =1,000,000 minutes per year for pharmacist"s time for dispensed medicines and 200,000 minutes per year for advice.

    That is 1.2M minutes per year = 20,000 hours ÷ 40 weeks = 500 weeks.
    or in including emergency hours = 20,000 hours ÷ 56 weeks = 357 weeks.

24. Assume that all staff work 46 weeks per year, but are paid for 52.

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