REVIEW OF GOVERNANCE AND ACCOUNTABILITY MECHANISMS IN

THE GENERAL MEDICAL SERVICES SCHEMES

FOR AND ON BEHALF OF

THE DEPARTMENT OF HEALTH & CHILDREN

SEPTEMBER 2003

Deloitte & Touche
Deloitte & Touche House
Earlsfort Terrace
Dublin 2

Deloitte.

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GLOSSARY OF TERMS

CCEI	:	Central Client Eligibility Index
DOH&C	:	Department of Health & Children
DPS	:	Drugs Payments Scheme
LTI	:	Long Term Illness Scheme
DTSS	:	Dental Treatment Services Scheme
EEA	:	European Economic Area
GMS or The GMS System	:	The General Medical Services System, being both the GMS Schemes and the Health Board Schemes
GMS(P)B	:	The General Medical Services (Payments) Board
GMS Schemes	:	Those schemes for which the GMS(P)B is reimbursed directly by the Department of Health & Children
Health Board Schemes	:	Those schemes for which the GMS(P)B is reimbursed directly by the Health Boards
HSE	:	Health Services Executive
IDTS	:	Indicative Drug Target Scheme
IMO	:	Irish Medical Organisation
IPU	:	Irish Pharmaceutical Union
IDA	:	Irish Dentists Association
New Over 70s Agreement	:	The extension of the Medical Card Scheme to all over 70s on 1 July 2001
NSSC	:	National Shared Services Centre
STC	:	Special Type Consultation
OOH	:	Out of Hours
IPHA	:	Irish Pharmaceuticals Healthcare Association

OVERVIEW

The GMS(P)B administers payments on a range of Schemes relating to the treatment of eligible persons in a primary or community care setting, and covers, inter alia, payments in respect of medical card holders, drug subsidisation, long term illness, high tech drugs, dental treatment and ophthalmic services.

The Schemes are at the centre of the primary care infrastructure in the Irish health system. The net cost of the Schemes has risen from €493m in 1997 to a projected €1.45bn in 2003, an increase of 194% over a six year period. At current levels, the Schemes account for approximately 17% of total current public health expenditure, by any standard a very significant element of total health spending.

A significant part of total expenditure within the Schemes is demand led. Expenditure levels in these Schemes are significantly influenced by the population eligible for services under the Schemes. Changes in eligibility can significantly affect costs under the Schemes, and require careful prior evaluation in financial and operational terms, before implementation. The extension of medical card holding to all over 70s highlights the risks of not so doing.

It must be accepted that in any demand led scheme, there are difficulties in projecting and controlling costs. Within the current Schemes, attempts have been made to control the escalations in costs. Doctors are for the most part paid a capitation fee for services to Medical Card holders (although it is of note that in recent years, fee per item payments have increased e.g. childhood immunisations). The Indicative Drugs Target Scheme was designed to promote cost effective prescribing, however this no longer appears effective. National agreements have been entered into with the IPHA in an effort to control drug pricing. However, despite such cost control measures, expenditure in the Schemes continues to escalate. Indeed, given the relatively low prescribing rate in Ireland compared to international experience, there are legitimate concerns that for the eligible persons covered by the Schemes, expenditure levels can only rise in the future.

Spending at the levels now being incurred demands that effective governance and accountability structures are in place. This is not the case at present. This report highlights significant deficiencies in the management of the schemes, and the need for urgent improvements in accountability arrangements with primary care contractors, and in controls over expenditure being incurred on publicly funded drugs and medicines. In particular, our review highlights the following deficiencies:

- No one body has responsibility for the overall management of the GMS system.
- GPs and other clinicians are not accountable for the financial consequences of the clinical decisions they make under the Schemes, particularly drugs prescribing.
- A lack of financial and operational planning on the introduction of new schemes, or amendments to existing schemes.
- A lack of robust financial forecasting of projected expenditure levels on existing schemes including the absence of medium term projections of Scheme expenditures.

- The absence of effective statutory or contractual authority to implement and operate effective validation and audit processes over expenditures claimed by contractors under the Schemes (e.g. pharmacists, dentists, ophthalmologists etc.).

- The absence of adequate monitoring and control over databases of persons eligible for benefit under the Schemes.

The recommendations in this report are designed to address the fundamental weaknesses identified above in the current governance and accountability arrangements.

It is essential that the Schemes are managed effectively from a national perspective. Improved monitoring and evaluation, enhanced validation of Scheme expenditures, and the cooperation of primary care contractors in improving value for money under the Schemes is required. These are significant gaps in the current structures. Furthermore, expenditures being incurred to support the implementation of National Health strategies (for example the significant costs being incurred on statins in support of the National Cardiovascular Strategy) need to be monitored and evaluated on an ongoing basis against the objectives of those strategies. This will help identify whether in the context of the health status of the population, and the benefits to other elements of the health system, the expenditure on the Schemes is delivering value. Formal structures to evaluate these issues are currently lacking.

We recognise that full implementation of the recommendations of this report will require structural change, enhanced information systems and changes to the legislative and contractual framework within which the GMS system and the Schemes operate. These changes will take time to implement in full. Furthermore, the requirement for change arises at a time when the health system as a whole is to be restructured. None of this, however, should detract from the need to urgently address the key weaknesses identified within the Schemes as they currently operate. Many of the recommendations of this report can be acted upon in the short term, and it is incumbent on the Department of Health and Children, the GMS(P)B and the Health Boards to commit to these changes. If the operation of the Schemes continue in their present form, it is very likely (if indeed not inevitable) that Scheme costs will continue to escalate into the future, particularly if, as expected, prescribing rates continue to increase. However, not to implement the necessary changes in governance and accountability arrangements will mean that there will be little, if any, effective control over these costs, and it will certainly be impossible to assess whether the Schemes deliver value for money. Reform of the GMS Schemes is therefore urgently required and must be accorded the highest priority. Not to do so would be a major failing for the public health system as a whole and for the taxpayer.

1. EXECUTIVE SUMMARY

1.1. Overview of Schemes

The GMS(P)B administer payments on a range of Schemes relating to the treatment of eligible persons in a primary or community setting, and principally covers payments in respect of medical card holders, drug subsidisation, long term illness, high tech drugs, dental treatment and ophthalmic services.

The General Medical Services (Payments) Board is a body corporate with perpetual succession and a common seal constituted by order of the Minister of Health under Section 11 of the Health Act 1970. The GMS(P)B performs the following functions on behalf of Health Boards in relation to provision of services by general practitioners, pharmacists, dentists and optometrists/ophthalmologists:

- The calculation of payments to be made for such services (it should be noted that the requirement to make calculations relates to payments to GPs based on capitation rates and panel numbers, and not the payment for claims lodged);
- The making of such payments;
- The verification of the accuracy and reasonableness of claims in relation to such services;
- The compilation of statistics and other information in relation to such services and the communication of such information to persons concerned with the operation of such services.

The GMS(P)B is accountable to the Oireachtas (Public Accounts Committee) for its expenditure, in accordance with its statutory role and responsibilities.

1.2. Costs of Schemes

Total expenditures arising on the Schemes administered by the GMS(P)B in 2002 was €1.26bn, growing to an estimated €1.46bn in 2003. Expenditure of the GMS(P)B has more than doubled over the past five years. At current levels GMS related expenditures account for approximately 17% of total non-capital public health expenditure. This underlines the significance of GMS expenditure within the total of public health expenditure, and given its scale, emphasises the requirement for robust governance and accountability structures to be in place.

Our review has highlighted the fact that prescribing rates and drug costs have continued to rise year on year in the GMS, DPS and LTI. High Tech drug costs have also grown significantly. Were the rates of prescribing and cost increases to continue at recent levels, we estimate that the cost of the GMS Schemes will rise from €1.46bn (2003 Estimate) to in excess of €1.6bn in 2004.

1.3. Reasons for Cost Increases

The principal reasons for the escalation in costs within the GMS are analysed in the table below. The effects of the extension of the Medical Card Scheme to all Over 70s have been separately identified in the table.

Table 1. 1
Cost Drivers of Schemes

OVERVIEW OF COST MOVEMENTS	2000 €m	2001 €m	2002 €m	2003 €m
Capitation fees				
Changes in panel numbers (excl Over 70's)	(2)	(1)	(1)	(1)
New Over 70'S Agreement	-	12	36	15
Other	4	8	17	(6)
	2	19	52	8
Cost of Prescriptions				
GMS				
Changes in panel numbers (excl Over 70's)	(5)	(10)	(10)	(9)
Increase in rate of Prescribing	24	12	25	46
Increase in Dispensing fees	3	5	5	1
Increase in Ingredient costs	33	40	40	50
New Over 70'S Agreement	-	24	42	29
Other	2	15	15	1
	57	86	117	118
DPS				
Changes in number of claimants	-	43	8	(1)
Increase in rate of Prescribing	-	(19)	(8)	6
Increase in Dispensing fees	-	1	1	-
Increase in Ingredient costs	-	6	9	8
Increase in mark up to pharmacists	-	3	4	4
Other	-	9	-	(13)
	-	43	14	4
LTI				
Changes in number of claimants	-	4	2	5
Increase in rate of Prescribing	3	8	-	-
Increase in Dispensing fees	-	-	-	-
Increase in Ingredient costs	2	2	3	2
Increase in mark up to pharmacists	1	1	1	2
Other	1	(4)	2	1
	7	11	8	10
HIGH TECH DRUGS	10	13	18	21
OTHER	109	33	28	35
TOTAL INCREASE IN NET COSTS PER YEAR	185	205	237	196

It is evident from the table that the principal drivers of increased costs are

- Costs associated with increases in the rate of prescribing across the GMS, DPS and LTI which amounted to an estimated €17m in 2002.
- Ingredient cost increases, which across the GMS, DPS and LTI amounted to c.€52m in 2002. In addition, the cost of the High Tech Drugs Scheme increased by c.€18m in 2002.

- The introduction of the New Over 70s Agreement. This cost an estimated €126m in 2002, the first full year of the running of the Scheme (net of savings on transfer of eligible persons from the DPS to the GMS)

1.4. Conclusions

The key conclusions emanating from our review of the GMS are as follows:

I) Requirement for Robust Structures

GMS expenditures are of such significant scale that robust governance and accountability structures are essential.

II) Structural Weaknesses in the GMS

The current governance and accountability arrangements are inadequate in a number of important respects:-

- No one party is responsible for the overall governance and management of the GMS system as an integrated national entity at present. As a result, accountability throughout this system is unclear and ineffective. This is a fundamental weakness in current structures.
- Roles and responsibilities for different aspects of the operation of the GMS Schemes are split between the Department of Health & Children, the Health Boards and the GMS(P)B itself. There is a lack of clarity over the allocation of responsibilities between the various bodies and the very existence of split responsibilities has led to a dilution in effective governance and accountability in the GMS.
- The funding of the GMS(P)B is split between schemes funded directly by the Department and those funded through Health Boards. This further hinders clear accountability within the structures.
- The GMS(P)B has a relatively narrow remit i.e. that of a processing and payments board. The evidence suggests that it performs this function efficiently. However, the GMS(P)B suffers from a perception that it is responsible for the GMS system as a whole, and for the cost escalations experienced in the various schemes, particularly over recent years. It cannot be so accountable, particularly as it has had no role in:
  - Design and planning of schemes
  - Negotiation of scheme arrangements with Primary Care Contractors.
- The GMS(P)B has not been in a position to develop an effective validation regime at contractor level to ensure the veracity of payments made.

III) Limitations in Financial Modelling of Schemes

There is scope to improve the cost prediction processes in place within the GMS(P)B, including the financial modelling on which estimates are based. This is accepted by the GMS(P)B, which has recently undertaken steps to improve its processes in this area.

IV) Book of Estimates

The amounts included in the Book of Estimates for the GMS should be based on the latest estimates then available from the GMS(P)B. In 2001 and 2002, the Book of Estimates did not reflect what the GMS(P)B predicted at the time of the Estimates to be the most likely outturn for the ensuing year in question. This has resulted in the initial allocation made in respect of GMS Schemes being significantly less than the level of expenditures it had projected, giving the GMS(P)B a budget deficit at the start of the year. The funding of this deficit has in practice been met through Supplementary Estimates towards the end of the year in question. From the perspective of the GMS system as a whole, and particularly from the perspective of the Board of the GMS(P)B, the existence of a significant budget deficit at the start of any year represents inadequate financial governance, even if it was anticipated it would be met by a Supplementary Estimate.

V) Need for Fundamental Review of Schemes

The GMS has grown significantly since its inception, both in terms of the number of schemes/payment heads and the value and volume of transactions handled. The GMS has in essence evolved over that period to the type of entity it is today. We are of the view that there is now a requirement to carry out an Expenditure Review of the Schemes, to examine their structure and modus operandi and to ensure they best meet the objectives of the Health Strategy, including the Primary Care strategy, and offer best Value for Money.

This review highlighted the following:

- The need to involve GPs and other service providers in budget holding to improve financial management and accountability.
- The requirement to assess whether the LTI should be merged into the GMS.
- The need to cap annual payments under the IDTS, at an agreed budget amount.
- The need to urgently amend or indeed cease the Advance Drawdown of Monies under the IDTS to limit financial exposures in this area.
- The need to evaluate the cost/benefits of the extension of the GMS to all over 70s, particularly in light of the significant current and prospective costs associated with this extension.

- The requirement to amend the basis of remunerating pharmacists under the DPS and LTI to a fee for service basis and not a mark up on ingredient costs.
- The requirement to establish protocols for drugs prescribing, and to monitor prescription data at GP level to ensure appropriate and effective prescribing patterns.
- The requirement for medical technology appraisal on an ongoing basis.

VI) Need for a Central Client Eligibility Index

There is an urgent need to implement a Central Client Eligibility Index within the GMS System to avoid the data integrity issues which came to light at the time of the extension of Medical Card Eligibility to all over 70s. It is likely that data integrity issues exist within other registration panels used for GMS payment purposes also. The lack of data integrity has resulted in payments being made by the GMS(P)B which are invalid, and also increases the risk of fraud. The GMS(P)B have concerns that the level of invalid payments may be significant. The required investment in the CCEI would, on this basis, have a very immediate payback.

1.5. Recommendations

I) Management as an Integrated National System

One body should be charged with overall governance and management of the GMS system, to include:

- Preparation of an annual Service Plan for the Schemes, and outlining its plans in the areas of monitoring, reporting, systems development and validation. This plan should be used to inform the Book of Estimates.
- Input into Scheme design, development and implementation in liaison with the Department.
- Negotiation of contracts/contract revisions with Primary Care Contractors, in liaison with the Department.
- Responsibility for ongoing monitoring of the Schemes, including preparation of comprehensive management reports on Schemes, and making recommendations for improvements in the operation of Schemes.
- Responsibility for medium term financial planning and forecasting of its Schemes.
- Responsibility for developing and implementing a comprehensive validation regime over expenditures, including the implementation of effective validation procedures at contractor level.

- Responsibility for the implementation and maintenance of appropriate IT systems in the GMS, particularly the implementation of a Central Client Eligibility Index.

The above requirements essentially define an integrated, national executive management function for the GMS System, which is lacking at present.

Our report is being issued after the publication of the following reports;

(i) The Audit of Structures and Functions in the Health System (Prospectus Report)

(ii) The report of the Commission on Financial Management and Control Systems in the Health Services (Brennan Report)

Both of the above reports advocate the establishment of a Health Services Executive (HSE) which will assume management responsibility for the planning, management and delivery of healthcare nationally. Furthermore, the Prospectus Report recommends the establishment of a National Shared Services Centre (NSSC) within the HSE.

Our recommendations on the future structure for the GMS are consistent with those included in the aforementioned reports. The essence of our recommendations is that one party should have overall responsibility for governance and management of the GMS, with clear lines of accountability. As such, we see the role of managing the GMS fitting within the HSE in due course. The activities of the GMS(P)B which currently relate to the calculation, making and verification of payments, and compilation of statistics can in many respects be characterised at present as being of a Shared Services nature. As such, these activities should be incorporated within a NSSC in due course.

The NSSC would provide the necessary management information to the GMS Division of the HSE to enable it manage and monitor the GMS System on an integrated, national basis.

An alternative structure to the above would be to broaden the remit of the GMS(P)B to include a national management responsibility for the Schemes and to report into the new HSE.

A change to the Statutory Instruments currently in force may be required to give effect to this recommendation.

The Brennan Report makes a number of recommendations to improve accountability for expenditures within GMS Schemes, and specifically identifies actions required to improve the operation of the GMS and DPS and in respect of Drugs Assessment. The recommendations of the Brennan Report are consistent with those set out in this Report.

II) Funding

Funding of the GMS should be made directly by the Department of Health & Children to the GMS(P)B (executive management responsibility for which should, in the future, be located within the HSE). No funding should be made through Health Boards.

III) Medical Cards

We have considered whether the GMS(P)B should be responsible for registration of clients and dealing with eligibility. We believe that over time this function could be carried out within the HSE. For this to be effective scheme eligibility criteria may need to be reviewed and refined to reduce the level of discretion required in the award of medical cards or eligibility for other Schemes. Procedures would also need to be implemented to deal with those cases where discretion is required on the issuance of Medical Cards, which will involve the agreement of criteria and procedures between the GMS(P)B and the Health Boards. For the moment, however, we believe that the registration of clients and dealing with eligibility is best handled at Health Board level. However, Boards need to improve their management of medical cards and we recommend that formal arrangements be established by HeBE (and in future by the HSE) to ensure closer joint management arrangements of the Schemes.

IV) Validation

The GMS(P)B would routinely carry out validation checks on its CCEI to minimise the risk of poor quality data, once this is in place.

V) Role of Department of Health & Children

The Department of Health & Children will continue to have responsibility for strategy and policy relating to the GMS, and for monitoring policy effectiveness of the Schemes at a national level. Any new Schemes or amendments to existing Schemes should be subject to vigorous prior planning and negotiation with contractors prior to announcement and implementation. A formal review meeting between the Department of Health & Children and the GMS(P)B should take place on at least one occasion during the year to monitor progress against service plan, to identify areas where variances are arising and to agree on corrective actions and future funding implications.

VI) Accountability of Clinicians

GPs and other primary care contractors should be required to take on an appropriate form of budget holding responsibilities and be accountable for their actions relative to budget.

VII) Management Reporting

The Management Reporting Template used by the GMS(P)B should be developed to include reporting against service plan and agreed performance indicators.

The escalation in expenditures in recent years has brought the issue of the costs and benefits of the GMS(P)B under public scrutiny. The issues of governance, financial management and accountability are particularly pertinent in this regard. Unless action is taken to improve the governance and accountability process within the GMS System as a whole, in line with the recommendations of this report, we believe that GMS will prove impossible to control, with little way of assessing whether it delivers value for money. In circumstances where the GMS Schemes account for 17% of public non-capital health expenditure, there is no option but to significantly restructure the way in which the GMS System operates. Not to do so would be a major failing for the public health system as a whole, and for the taxpayer.

1.6. Implementation of Recommendations

Table 1.2 outlines the timescale for implementing the conclusions and recommendations detailed in Sections 1.4 and 1.5.

Table 1. 2
Timescale for Recommendations

		Short Term (1-2 years)	Long Term
I	**CCEI**		
	• Commence development of CCEI	✓	
	• Operate fully implemented CCEI		✓
	• Transfer responsibility for monitoring patient databases to National Executive		✓
II	**Alignment with Proposed New Health Structures**		
	• Confirm where GMS fits within the HSE	✓	
	• HeBE to assume National role for GMS in the interim to promote improved conjoint management approach	✓	
	• Formally fit GMS System with new Health Structures		✓
III	**Single Funding Source for GMS(P)B**	✓	
IV	**Validation**		
	• Define validation regime	✓	
	• Obtain co-operation of medical unions	✓	
	• Amend contracts where necessary	✓	
V	**Develop Budget Systems with Contractors**		
	• Assessment of scope for improving IDTS	✓	
	• Develop more refined budget holding arrangements with GPs		✓
	• Develop protocols for drug prescribing	✓	
VI	**Resources**		
	• Put in place additional resources in GMS to improve financial planning; validation etc	✓	
VII	**Estimates Process**		
	• Ensure Book of Estimates is based on GMS projections incorporating latest trends	✓	

2. SCOPE AND BASIS OF REVIEW

2.1. Background

Deloitte & Touche were engaged by the Department of Health and Children to review the General Medical Services Schemes in October 2002. Work on the assignment was undertaken between October 2002 and January 2003. Our work was subsequently updated in September 2003. This report sets out the findings of our review.

2.2. Terms of Engagement

The scope of our work is as set out as follows:

(i) To analyse the governance and accountability mechanisms in the General Medical Services Schemes, and payments made by the GMS (Payments) Board on behalf of Health Boards,

(ii) To examine the roles and responsibilities of the Department of Health and Children, the Eastern Regional Health Authority/Health Boards and the GMS (Payments) Board in this context,

(iii) To examine the underlying reasons for increasing cost trends in the General Medical Services Schemes,

(iv) To validate the estimated outturn for 2002 and assess its implications going forward, and

(v) To make recommendations for the immediate resolution of any identified weaknesses and inadequacies.

We addressed item (iv) by way of an interim report issued on 4 November 2002. Subsequently actual data for 2002 became available. The actual outturn for 2002 is therefore included in this report.

2.3. Sources of Information

Our review procedures included:

- Discussions with representatives of the GMS(P)B
- Discussion with representatives of the Board of the GMS(P)B
- Discussions with representatives of the Department of Health and Children
- Discussions with representatives of the Department of Finance
- Discussions with representatives of the Health Boards
- Obtaining information on drug trends and prescribing patterns from Dr. Michael Barry of the National Centre for Pharmacoeconomics

2.4. Lack of verification

Our procedures and enquiries have not included verification work nor do they constitute an audit in accordance with Auditing Standards.

2.5. Structure of this report

This report is structured as follows:

Section 3 **General Medical Services (Payments) Board**

This section examines the statutory basis for the GMS(P)B and gives an overview of the Schemes it administers and how it is funded.

Section 4 **Scheme Expenditure**

This section analyses Scheme Expenditures, and comments on underlying trends.

Section 5 **Analysis of Scheme Cost Drivers**

This section provides a high level analysis of the principal reasons for cost increases in the Schemes.

Section 6 **Governance and Accountability**

This section deals with the issues of governance and accountability in the GMS. It explains the roles and responsibilities of parties involved, and outlines the deficits in current arrangements.

Section 7 **Other Issues**

This section deals with other matters which came to our attention during our review.

Section 8 **Review of Financial Model**

This section provides our comments on the forecasting methodology used by the GMS(P)B.

Section 9 **Conclusions and Recommendations**

3. GENERAL MEDICAL SERVICES (PAYMENTS) BOARD

3.1. Statutory Basis

The General Medical Services (Payments) Board is a body corporate with perpetual succession and a common seal constituted by order of the Minister of Health under Section 11 of the Health Act 1970.

The GMS(P)B performs the following functions on behalf of Health Boards in relation to provision of services by general practitioners, pharmacists, dentists and optometrists/ophthalmologists:

- The calculation of payments to be made for such services;
- The making of such payments;
- The verification of the accuracy and reasonableness of claims in relation to such services;
- The compilation of statistics and other information in relation to such services and the communication of such information to persons concerned with the operation of such services.

The GMS(P)B is accountable to the Oireachtas (Public Accounts Committee) for its expenditure, in accordance with its statutory role and responsibilities

3.2. The Schemes Administered by the GMS(P)B

The Schemes administered by the GMS(P)B are as follows:

- GMS Schemes (i.e. Schemes funded directly by Department of Health and Children)
  - Payments to Doctors
  - Drug Target Refund
  - GMS Pharmacy Claims
  - EEA Pharmacy Claims
  - High Tech Drugs
  - Administration/Technical Services
- Health Board Schemes
  - DPS Pharmacy Claims
  - LTI Pharmacy Claims

- High Tech Drugs
- Methadone Treatment Scheme
- Health Amendment Act 1996 related expenditures
- Dental Treatment Service
- Childhood Immunisation
- Community Ophthalmic Services

3.3. Funding

The GMS(P)B (Payments) Board receives its funding from three sources.

- The Department of Health and Children ("The Department")
- The Health Boards
- Rebates from Wholesalers

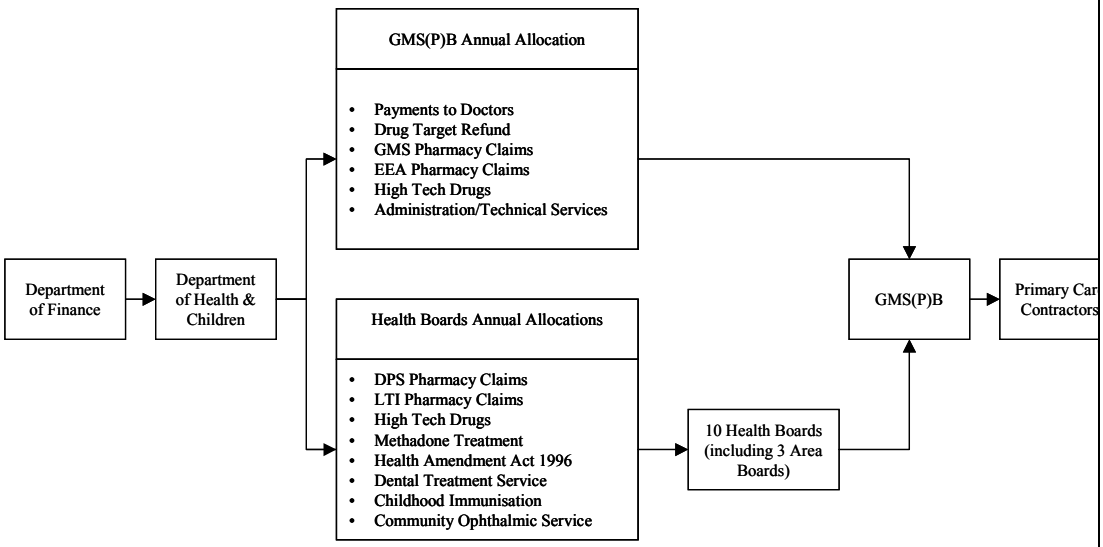
For those Schemes funded directly by the Department, an allocation is made to the GMS(P)B within the Book of Estimates which is drawn down throughout the year. The GMS(P)B submits a monthly cashflow to the Department detailing the amounts that are payable within those Schemes during any given month and for which it is seeking funding. Any shortfall in the funding of demand led schemes administered by the GMS(P)B, which has emerged during a financial year, has in the past been met by way of Supplementary Estimate.

The Department provides funding in respect of Health Board Schemes to the Health Boards within their overall annual budget allocations. The GMS(P)B invoices the Health Boards monthly to reimburse it for expenditures incurred on behalf of the Boards. As the Health Boards pay one month in arrears, this means that the GMS(P)B avails of overdraft facilities from time to time.

3. GENERAL MEDICAL SERVICES (PAYMENTS) BOARD

Table 3.1 shows the funding structure for the GMS(P)B.

Table 3. 1
Funding Structure



3.4. GMS Allocations

Table 3.2 shows the Total Net Expenditure of the GMS(P)B since 1997. These Total Net Expenditure figures include both GMS Schemes and the Health Board Schemes, and are net of manufacturer's rebates. The table also shows the amount directly funded by the DOH&C for GMS Schemes.

Table 3. 2
Allocations to GMS Schemes

	1997 €m	1998 €m	1999 €m	2000 €m	2001 €m	2002 €m	Estimated 2003 €m
Total Net Expenditure of GMS(P)B	493	580	627	812	1,018	1,254	1,450
% increase		18%	8%	30%	25%	23%	16%
Total Net Expenditure of GMS Scheme							
Estimate	370	416	471	498	618	811 (1)	1,057
Revised Estimate	381	444	467	538	658	902	1,047
Outturn	381	437	469	551	690	872	n/a
Net Allocation from DoHC for GMS Schemes							
Initial Allocation	361	380	422	514	630	739 (2)	963
Supplementary Estimate	-	20	121	37	25	184	n/a
Total Allocation	361	400	543	551	655	923	963

(1) Based on mid-year assessment for inclusion in AEV issued in November 2001
(2) Provided in late October 2001

Source: GMS(P)B

3. GENERAL MEDICAL SERVICES (PAYMENTS) BOARD

The following points should be noted:

- Total Net Expenditure of the GMS(P)B covers both GMS Schemes and Health Board Schemes
- Total Net Expenditure of GMS Schemes covers Scheme expenditures for which the GMS(P)B is directly reimbursed by the DOH&C.
- The DOH&C Supplementary Allocation in 1999 included additional funding to cover the shortfalls that arose since 1996.
- The DOH&C Supplementary Allocation in 2002 included additional funding to cover the 2001 shortfall.

It is evident from Table 3.2 that total net expenditure of the GMS(P)B has more than doubled over the past five years. The net cost of GMS Schemes (i.e. those directly funded by the DOH&C) has increased from €437m in 1998 to €872m in 2002. The net cost of Health Board Schemes has increased from €143m to €381m in the same period. These figures serve to illustrate the rapid rate of growth in Scheme expenditures over a relatively short number of years.

Table 3.2 also serves to illustrate the significance of Supplementary Estimates in funding the Schemes. It is evident that in all years since 1998 the initial allocation made by the DOH&C for GMS Schemes (based on the amount provided in the Book of Estimates) was significantly lower than the outturn for the relevant year. The demand led nature of certain of the Scheme expenditures can, in part, explain this variation.

It can be seen that in 2002 and 2003, there is a sizeable difference between the Estimate of Net Expenditure of GMS Schemes prepared by the GMS(P)B and the Initial Allocation from the DOH&C (being the amount included in the Book of Estimates for the GMS Schemes). The process to prepare this Initial Allocation typically commences around mid-year, when the DOH&C responds to the Estimates Circular issued by the Department of Finance. Negotiations between the Departments to finalise the allocation typically begin in July/August. In November the Department of Finance publishes the Abridged Estimates Volume, which contains the agreed allocation for the GMS Schemes. However, by the time the Book of Estimates is published, the basis on which the allocation is calculated can be some six months out of date. The timing differences that exist between the Estimates negotiation process and the publication of the Abridged Estimates Volume result inevitably in a risk that in circumstances where Scheme expenditures are escalating significantly (as has been the case in recent years) the amount included in the Book of Estimates will not be in line with the GMS(P)B's current forecast of projected expenditures at that time. Where shortfalls in the overall Health Vote attributable to the GMS occurred, Supplementary Estimates have in the past been agreed.

The issue is of some significance to the GMS(P)B as in both 2002 and 2003 it started its financial year with an approved funding figure less than its estimated requirements. In 2002, the Initial Allocation was €739m, compared to the GMS(P)B's initial estimate of €811m. However, the final figure provided through the 2002 Supplementary Estimate was €923, the variance to a large degree having resulted from the costs of extending medical card eligibility to Over 70s. In 2003, the Initial Allocation was €963m, compared to the GMS(P)B's original estimate of €1,057m, a difference of €94m. This position is at variance with achieving good standards of governance, which would demand that allocations should be in line with robustly prepared expenditure projections. As such, a significant part of the required Supplementary Funding for 2002 relates to expenditures projected by the GMS(P)B a full year earlier, but which, for timing and other reasons, the process to prepare the Abridged Book of Estimates does not factor in. This position can be expected to recur in 2003 given the difference of €94m between the Book of Estimates and the GMS(P)B's Estimate for the year.

It is important to point out that the GMS(P)B is not directly involved in the Estimates process, which is a matter between the Department of Health & Children and the Department of Finance. Going forward, it is vital that the GMS(P)B's best projection of the total costs of the GMS system, compiled Scheme by Scheme on the basis of explicit assumptions, informs the Department of Finance's Estimate process. This projection, adjusted for any policy decisions, should be included in the Book of Estimates. The Estimate should be the basis on which the GMS(P)B prepares its service plan, Scheme by Scheme. On a monthly basis, the GMS(P)B should report against the Service Plan, highlighting variances, giving reasons for same, and providing a critique of implications for the budget outturn to the year end, and advising on any corrective measures which could be taken.

In the context of demand led schemes, this should lead to a situation where, in conjunction with other measures advocated in this report, (including in particular GP budget accountability) any excess of expenditure over allocation will be due principally to unpredictable demand within the Schemes. In our view, any budget excesses due to genuine increases in demand will need to be afforded a Supplementary Estimate - the GMS System could not properly function without this. However, we fully expect with implementation of the range of measures recommended in this report that the quantum of any such Supplementary Estimate would be significantly lower than in previous years, essentially a function of improvements in the budget processes, service planning, and Scheme monitoring.

At current expenditure levels of €1.26bn in 2002, growing to an estimated €1.46bn in 2003, GMS related expenditures account for approximately 17% of total non-capital public health expenditure. This underlines the significance of GMS expenditure within the total of public health expenditure, and given its scale, emphasises the requirement for robust governance and accountability structures to be in place. This fact has been recognised by the DOH&C in setting the terms of reference for this review.

3. GENERAL MEDICAL SERVICES (PAYMENTS) BOARD

Our review has highlighted the fact that prescribing rates and drug costs have continued to rise year on year in the GMS, DPS and LTI. High Tech drug costs have also grown significantly. Were the rates of prescribing and cost increases to continue at recent levels, we estimate that the cost of the GMS Schemes will rise from €1.46bn (2003 Estimate) to in excess of €1.6bn in 2004.

The reasons for the growth in expenditure in the GMS(P)B are examined in Section 4.

4. SCHEME EXPENDITURE

4.1. Expenditure 1999 to 2003

The table below shows the actual outturn for all Schemes administered by the GMS(P)B for 1999 to 2002, together with the estimated outturn for 2003.

Table 4. 1
Estimates

		1999 Outturn €m	2000 Outturn €m	2001 Outturn €m	2002 Outturn €m	2003 Estimate €m
PAYMENTS TO DOCTORS						
7	Total Cost of Visits	1.8	1.8	1.9	2.0	1.5
8	Dispensing Fees to Doctors	0.7	1.6	2.1	1.7	2.4
9	Childhood Immunisation	2.0	2.0	7.8	5.3	5.0
10/11	Special Type Consultations/Special Services/OOH	19.5	27.0	36.4	40.0	43.9
12	Capitation Fees	75.5	77.2	96.5	149.0	156.6
13	Contribution to Superannuation Fund	6.0	7.9	9.9	15.0	15.9
14	**Practice Development Fund**					
	Secretarial and Nursing Subsidy	14.7	16.9	25.8	30.4	38.7
	Rostering And Out Of Hours	6.5	6.5	6.5	6.5	6.5
	Practice Development	4.4	4.4	4.4	4.3	4.4
	Practice Support	2.0	2.0	2.1	2.3	2.2
	Drug Target Refund	8.5	10.2	11.6	17.6	25.1
15	Rural Practice Allowance	1.9	1.9	2.2	2.7	2.8
16	Medical Indemnity Insurance	1.4	1.2	1.6	1.6	2.7
17	**Leave**					
	Annual	4.9	4.8	5.3	5.6	5.7
	Sick	0.8	0.7	0.8	1.0	1.0
	Maternity	0.2	0.2	0.2	0.2	0.9
	Study	0.9	0.9	1.0	0.9	1.5
18	One in One Rotas/ Third Year Trainees/ Trainers Allowances	1.5	2.1	0.6	1.2	2.0
19	Locum Expenses (Fee per Item Contracts)	0.0	0.0	0.0	0.1	0.0
20	Payments to Former DMO's	6.3	6.3	7.1	7.5	7.8
21	Heartwatch	-	-	-	-	1.2
PRESCRIBING AND DISPENSING						
25	**Total Cost of Prescriptions**					
	GMS pharmacy claims	274.1	330.8	416.7	533.8	651.6
	DPS pharmacy claims	78.2	138.6	181.3	195.4	199.6
	LTI pharmacy claims	33.6	41.4	52.3	61.2	71.0
	EEA pharmacy claims	1.1	1.3	1.5	1.6	1.4
26	Total Cost of Stock Orders	9.3	10.3	11.3	12.7	15.1
27	Additional Advance Payments	1.8	2.2	2.9	(1.0)	(1.5)
28	Payments Under High-Tech Scheme					
	Drugs/ Medicines	39.3	48.2	59.9	77.6	97.4
	Patient Care Fees	2.2	2.9	3.8	4.3	5.2
29	Methadone Treatment Scheme	3.6	5.4	6.6	7.7	9.4
30	Payments To Doctors, Dentists, Pharmacists & Optometrists Under The Health Amendment Act (1996)	0.8	1.0	1.1	1.2	1.4
31	Dental Treatment Services Scheme	18.6	38.4	42.1	46.4	48.0
32	Health Board Community Ophthalmic Services Scheme	1.0	8.9	9.5	14.5	14.0
ADMINISTRATION						
33/34	Administration/Technical Services/HB Stationery	9.9	11.9	12.7	13.4	22.4
TOTAL PAYMENTS		633.0	816.9	1,025.5	1,263.7	1,462.8
	Manufacturers rebates	(6.0)	(4.9)	(8.0)	(10.0)	(13.0)
TOTAL NET PAYMENTS		627.0	812.0	1,017.5	1,253.7	1,449.8

Source: GMS (P) Board

Table 4.2 shows the division of funding for the above Schemes between those funded directly by the DOH&C and those by the Health Boards.

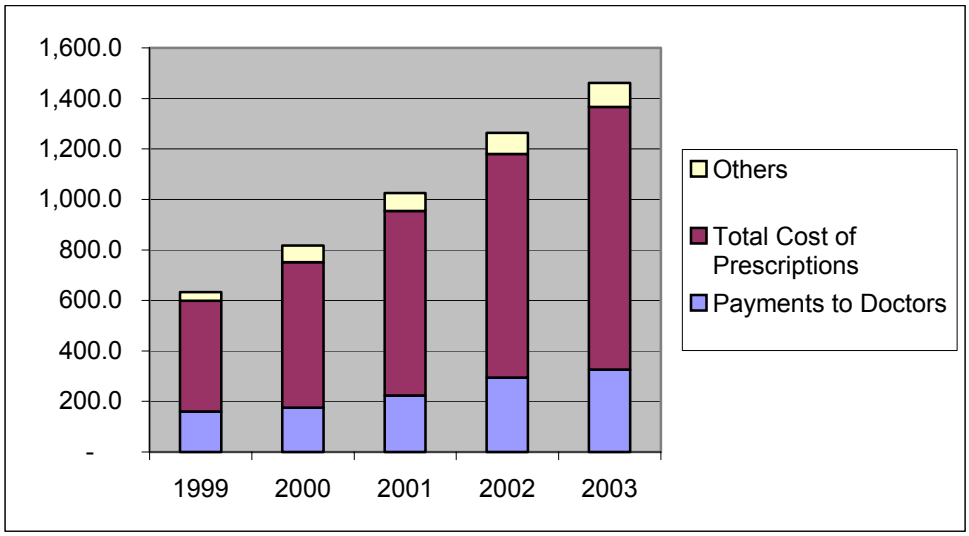
Table 4. 2
Division of GMS(P)B Expenditure

GMS SCHEMES	1999 Outturn €m	2000 Outturn €m	2001 Outturn €m	2002 Outturn €m	2003 Estimate €m
Doctors	149.0	163.4	204.4	262.9	288.3
Drug Target Scheme	8.5	10.2	11.6	17.6	25.1
GMS Pharmacy Claims	285.2	343.3	430.9	545.5	665.2
EEA Pharmacy Claims	1.1	1.3	1.5	1.6	1.4
High Tech	20.8	25.8	36.4	41.5	58.2
Administration/Technical Services/HB Stationery	9.9	11.9	12.7	13.4	22.4
Manufacturers Rebates	(6.0)	(4.9)	(8.0)	(10.0)	(13.0)
TOTAL COST OF GMS SCHEMES	**468.5**	**551.0**	**689.5**	**872.5**	**1,047.6**
NON-GMS SCHEMES					
DPS Pharmacy Claims	78.2	138.6	181.3	195.4	199.6
LTI Pharmacy Claims	33.6	41.4	52.3	61.2	71.0
High Tech	20.7	25.3	27.3	40.4	44.4
Methadone Treatment	3.6	5.4	6.6	7.7	9.4
Health Amendment Act 1996	0.8	1.0	1.1	1.2	1.4
Dental Treatment Services	18.6	38.4	42.1	46.4	48.0
Childhood Immunisation	2.0	2.0	7.8	5.3	5.0
GMS Special Service Immunisations	-	-	-	9.1	9.4
Community Opthtalmic Services	1.0	8.9	9.5	14.5	14.0
TOTAL COST OF HEALTH BOARD SCHEMES	**158.5**	**261.0**	**328.0**	**381.2**	**402.2**
TOTAL	**627.0**	**812.0**	**1,017.5**	**1,253.7**	**1,449.8**

Source: GMS (P) Board

As can be seen from Table 4.1 the expenditures made by the GMS (Payments) Board increased by 62% between 1999 and 2001, passing the €1bn level in that year. A further increase of 23% arose in 2002. On this basis expenditure will in fact have doubled over the period 1999 to 2002. A further increase of 15% is projected for 2003, bringing total costs for the Schemes to an estimated €1.46bn in the current year.

Figure 4. 1
GMS(P)B Expenditure by Main Category



Source: GMS (P) Board

Figure 4.1 also shows the breakdown of expenditure levels per Scheme over the period. The areas of most significant increase are;

- Capitation Fees, the major element of Payments to Doctors, have increased from €76m in 1999 to €149m in 2002. This includes the impact of extending Medical Card eligibility to all over 70s of c.€34m in 2002.
- GMS Pharmacy Claims, which have increased from €274m to €534m between 1999 and 2002. This is principally due to significant increases in the rate of prescribing and in average ingredient cost per item.
- DCS/DPS Pharmacy Claims. The DPS increased from €139m to €196m in the period 2000 to 2002. The DPS replaced the DCS in July 1999, and this policy change largely accounts for the increase in expenditure.
- LTI Pharmacy Claims, which have increased from €34m to €61m between 1999 and 2002.
- High Tech Drugs, which have increased from €41m to €82m over the 1999 to 2002 period.

These are analysed in more detail in the sections which follow.

4.2. Capitation Fees

Table 4.3 sets out the amounts paid to GPs in respect of capitation fees in the period 1997 to 2002, and the estimated payments for 2003.

Table 4. 3
Capitation Expenditure

	1999 Outturn €m	2000 Outturn €m	2001 Outturn €m	2002 Outturn €m	2003 Estimated €m
Expenditure	75.5	77.2	96.5	149.0	156.6

Source: GMS (P) Board

Expenditure levels for 2003 are estimated to increase by 107% on 1999 levels, from €75m to €157m. The biggest single increase has occurred in 2002, where payments increased by 55% on 2001 levels. This increase is due mainly to the effect that the New Over 70's Agreement has had on Capitation Fees. Under the Agreement, one newly eligible person Over 70 effectively costs three times the rate payable on existing Over 70s medical card holders because of the new fee structure that has been negotiated.

Basis of Payment to GPs

When a medical card is issued, the individual concerned is registered on a Health Board system, and is referred to the panel of a GP of choice, who holds a contract within the community. With the exception of a small level of dispensing fees paid to doctors and payments for special consultations, the GP Capitation Panels form the basis on which GPs are paid by the GMS(P)B for treatment of Medical Card patients.

The fee structure for Capitation is based on age, sex and distance of patients from the particular GP's surgery, except for those over 70s who became part of the Scheme with the introduction of the Over 70s Agreements in July 2001, where a fixed rate applies.

The Capitation payment to any particular GP is therefore determined by the numbers and type of eligible patients on that Doctors Panel multiplied by the appropriate fee per category, i.e. the GMS(P)B simply pays the GP on the number and category of eligible patients as determined by the Health Boards, and not by the number of visits.

Capitation Panel Numbers

The total numbers of patients registered on GP Capitation panels in recent years is shown in Table 4.4.

Table 4. 4
Capitation Panels

	1999 Outturn	2000 Outturn	2001 Outturn	2002 Outturn	2003 Estimate
Numbers on Doctors Capitation panels	1,140,777	1,118,154	1,125,416	1,166,651	1,159,194
		-2%	1%	4%	-1%

Source: GMS (P) Board

The Capitation panel can be broken down into three categories:

- Over 70s who held, or ever held, a Medical Card prior to 1 July 2001,
- New Over 70s who never held a Medical Card and became eligible on 1 July 2001,
- The Remaining GMS population.

The remaining GMS population comprises all remaining age categories under 70. At December 2002, the number within this category was estimated to be in the region of 850,000. This category shows only moderate increases over the period and is expected to remain stable for 2003.

As can be seen in the table above, panel numbers were falling until 2001. In July 2001, the Over 70s Agreement (which extended eligibility to a Medical Card to all over 70s) came into effect.

At the time of introduction of the New Over 70's Agreement in July 2001, it was estimated that an additional 39,000 persons would become entitled to a Medical Card, being those over 70s who did not hold, or never held a Medical Card at that time. This estimate soon prove to be significantly in error, as by December 2001 63,000 new Over 70s had registered, and by December 2002 this had increased to some 83,000.

The issue this has raised is that when the 83,000 new registrants are added to the existing over 70s GMS registered patients, the total exceeds the Central Statistics Office estimate of the total number of over 70s in the population. This issue was identified at an early stage by the GMS(P)B, and relates substantially to a lack of integrity over registration data at Health Board level. Health Boards were requested by the DOH&C to validate their GMS Over 70's panels when this issue was identified, which resulted in a reduction in numbers registered, either because patients had died or because of duplications or errors on the system. However, whilst the validation exercise has improved the quality of data on the over 70s population, it has not fully eliminated the anomaly. Clearly there is a risk that the data integrity issue impacts on the wider GMS Medical Card holder database also, and not just the over 70s, hence Health Boards have been requested by the DOH&C to validate entire GMS lists.

From an accountability point of view, the issue which this raises is that GPs have been overpaid in the past for duplicate, erroneous or deceased patients. The GMS(P)B estimates this overpayment on capitation fees to be in the order of €12m per annum across the full Capitation panel.

Capitation Rates

The Capitation rate applied to Over 70s depends on whether or not they held a medical card prior to 1 July 2001, the date of introduction of the New Over 70's scheme extension.

Table 4. 5
Old Over 70s Fee Structure

	0-3 Miles		3-5 Miles		5-7 Miles		7-10 Miles		Over 10 Miles	
	M	F	M	F	M	F	M	F	M	F
70+	€95.43	€106.11	€106.71	€117.44	€123.56	€134.24	€140.06	€150.79	€160.58	€171.33

Source: Schedule of Fees and Allowances payable to GPs at 1 October 2001

Those persons over 70 years of age, holding medical cards at 1 July 2001 continue to attract the existing fee structure going forward. At December 2002, 234,000 individuals belonged to this category.

The New Over 70s are the remaining Over 70s population that, following the implementation of the Agreement on 1 July 2001, were entitled to a medical card. The capitation fee applied to this category is €462 per annum for each over 70 on a Doctors Panel regardless of age, sex or distance, significantly higher than the amounts payable in respect of pre July 2001 registered patients. This higher fee was negotiated with the IMO to gain their support for the extension of Medical Cards to all Over 70s.

Key Issues

There are a number of important considerations going forward;

- The remaining discrepancy in over 70s registered persons needs to be resolved, a matter which has been being worked on at Board level.
- There is still a small but unquantifiable number of over 70s who have yet to register on a GP panel. Such persons as they register will increase panel sizes and costs.
- The impact of an ageing population means that the numbers of over 70s can be expected to increase from the level of 303,600 in the April 2002 census to c. 545,000 in 2026, equivalent to an approximate average net increase of 4,000 new over 70 registrants per annum up to 2006, 6,000 per annum between 2006 and 2011 and increasing thereafter as shown in Table 4.6.

Table 4. 6
Estimated Growth in Over 70 Population

Year	Estimated Number of Over 70s in the population 000's	Increase/Decrease in each 5 year period 000's	Average growth per annum in each 5 year period 000's
2001	303		
2006	324	21	4
2011	355	31	6
2016	405	50	10
2021	468	63	12
2026	545	77	15
2031	620	75	15

Source: Population Projections

We estimate that the annual death rate among over 70s is currently approximately 67 per 1,000, or c. 20,000 per annum. In essence, what this means is that on average approximately 24,000 new over 70s per annum will be eligible for registration for Medical Cards in the period to 2006. At current rates, this can be expected to give rise to an increased net cost of some €3m in Capitation fees. Assuming current prescribing levels and costs, the cost of providing medicines to each net increase of 4,000 new over 70s is of the order of €3m per annum. On this basis, the change in demographics alone can be expected to add €6m each year to the annual cost of the GMS for Capitation fees and prescribing to the over 70s up to 2006, and this can be expected to increase to an average of €8m per annum between 2006 and 2011 at current prices.

- It is essential, in modelling future cost predictions, that the GMS(P)B prepare separate projections of the constituent elements of the Capitation panel (i.e. new over 70s, existing over 70s and other Medical Card holders) as the attributes of each element are different from a demographic and cost perspective. We understand that the GMS(P)B has recently started to adopt this approach.

4.3. GMS Pharmacy Claims

GMS Pharmacy Claims are the cost of prescriptions issued to those with medical cards. Expenditure is driven by the following:

- The numbers of persons eligible on the Scheme

  The numbers eligible on the Scheme are the number of people with medical cards on all Health Board panels.

- The number of items claimed

  The number of items claimed is the number of items prescribed for eligible persons.

  The number of items claimed is often shown as a prescribing rate per eligible person. This, when multiplied by the number of eligible persons, gives the total number of items for which claims have been submitted during the year.

- The cost per item

  The cost per item is usually shown as the average cost of each item claimed. This cost is made up of three components; the ingredient cost per item (2002 - €14.36), the dispensing fee (2002 - €2.77) and VAT. The average ingredient cost of drugs is influenced by the nature and cost of the drugs prescribed. The dispensing fee is a fee paid to pharmacists for performing the dispensing service. This is negotiated with the IPU and is only subject to change with the negotiation of a new agreement, or a national pay agreement.

4.3.1. Overview of Prescription Costs Over the Period 1993 to 2001.

The cost of prescriptions, inclusive of VAT, in the GMS has risen from €169m in 1993 to €534m in 2002, a 216% increase in the period.

Table 4.7 below sets out relevant data for the GMS Scheme in this period:

Table 4. 7
Trends (Exclusive of VAT)

Year	Eligible Persons	Ingredient Cost	Dispensing Fees	Number of Items	Ingredient Cost per Item
	m	€m	€m	000's	€
1993	1.274	130	35	17,252	7.50
1994	1.287	137	37	17,906	7.67
1995	1.277	149	40	18,879	7.91
1996	1.252	159	42	19,131	8.32
1997	1.219	173	46	19,944	8.66
1998	1.184	195	49	20,696	9.41
1999	1.164	223	53	21,679	10.30
2000	1.148	263	59	22,882	11.49
2001	1.119	330	85	25,521	12.91
2002	1.169	423	105	29,500	14.35

(Figures are based on claims incurred during the year)

Source: GMS(P)B

It is evident from the above that, while the number of eligible persons has been reducing over this period, a significant increase has occurred in both the number of items prescribed and the average ingredient cost per item. (Note: Panel Numbers increased in 2002 following the introduction of the New Over 70's Agreement).

The increase in cost has been particularly pronounced since 1998, with a more than doubling of the total ingredient costs in the five year period. In the same period, the number of forms prescribed increased by 22%, and the number of items prescribed by 42%.

The total cost of Dispensing fees has increased from €35m in 1993 to €105m in 2002, an increase of c. 200% in the period. The average dispensing fee per item increased from €2.03 to €3.56 over the period, an increase in the average rate of payment for dispensing of 75%. This is in line with National Pay Agreements.

Over the period 1993 to 2002, the number of doctors contracts in existence under the GMS increased from 1,645 to 2,134, an increase of 30% in the period. The number of pharmacist contracts increased from 1,107 to 1,249, or 13% in the period. The increase in the numbers of such contractors in the period has therefore not been a primary driver of increased prescribing.

4.3.2. Analysis of Main Cost Drivers in GMS 1999-2003

Table 4.8 presents a trend analysis of the main cost drivers between 1999 and 2003 (Estimate). The cost drivers identified in the analysis of 1993 to 2002 data in Section 4.3.1 continue to reflect themselves in the 2003 Estimate.

Table 4. 8
GMS Variables

	1999 Outturn	2000 Outturn	2001 Outturn	2002 Outturn	2003 Estimate
Expenditure (€m)	274.1	330.8	416.7	533.8	651.6
		21%	26%	28%	22%
Number of eligible persons	1,184,882	1,160,221	1,161,539	1,207,526	1,168,531
		-2%	0%	4%	-3%
Number of items per person per month	1.49	1.63	1.77	1.99	2.27
		9%	9%	12%	14%
Number of items per person per annum	17.92	19.60	21.28	23.93	27.24
		9%	9%	12%	14%
Total number of items	21,228,647	22,734,539	24,717,555	28,896,085	31,830,773
		7%	9%	17%	10%
Average cost per item	€ 12.82	€ 13.98	€ 15.66	€ 17.34	€ 18.81
		9%	12%	11%	9%
Average dispensing fee	€ 2.47	€ 2.54	€ 2.77	€ 2.98	€ 3.05
		3%	9%	8%	2%
Average ingredient cost per item	€ 10.35	€ 11.44	€ 12.89	€ 14.36	€ 15.77
		11%	13%	11%	10%

(Figures are based on payments made in year)

Source: GMS (P) Board

The main points are as follows:

- Expenditure on the GMS Scheme has increased from €274m in 1999 to an estimated €652m for 2003, an increase of 138% over the period.
- The number of eligible persons started to increase in 2001 after a number of years of reduction in numbers because of the extension of the Medical Card Scheme to all over 70s.
- The number of items per person per annum has continued to rise and is expected to continue to do so in the coming years. This is not perhaps surprising as Ireland has a low prescribing rate per head of population. The number of items per person has increased from 17.92 in 1999 to a projected 27.24 in 2003, an increased of over 50% in the period. The annual increase of 12% in 2002 coincides with the extension of medical cards to all Over 70s.
- The ingredient cost per item has increased 10 – 12% per annum since 1999.

4.3.3. Top 20 Prescribed Medicines in GMS

Table 4.9 sets out an analysis of the Top 20 Prescribed Medicines in order of their Ingredient Cost for the period 1998 to 2002.

Table 4. 9
Trend in Top 20 Prescribed Medicines in 2002

		1998 €	1999 €	2000 €	2001 €	20
1	Omeprazole	10,780,386	12,639,539	15,165,291	17,315,990	20,
2	Clinical Nutritional Products	6,739,513	8,680,823	10,939,257	14,547,510	19,
3	Pravastatin	4,381,818	5,708,746	7,573,203	11,227,459	17,
4	Atorvastatin	-	1,771,975	3,700,042	6,351,261	10,
5	Olanzapine	2,250,276	3,434,531	4,745,718	7,699,129	10,
6	Lansoprazole	3,404,469	4,409,960	5,403,215	6,596,529	8,
7	Ostomy/Urinary Requisites	4,383,258	4,927,021	5,737,520	6,928,020	8,
8	Amlodipine	3,192,980	3,969,059	4,902,074	6,077,030	7,
9	Salmeterol and Combinations	-	1,509,277	1,687,090	4,125,223	7,
10	Diagnostics Products	2,110,165	2,616,323	3,370,477	4,828,599	6,
11	Beclomethasone (Inhaled)	5,619,635	5,890,883	5,917,580	6,018,262	6,
12	Esomeprazole	-	-	-	2,655,110	5,
13	Risperidone	2,066,787	2,697,204	3,115,269	4,510,442	5,
14	Clopidogrel	-	-	-	-	5,
15	Salbutamol with other Anti-Asthmatics	3,294,254	1,947,583	3,067,494	4,364,403	5,
16	Budesonide (Inhaled)	3,963,871	4,344,317	4,515,542	5,004,569	5,
17	Pantoprazole	1,792,113	2,594,168	3,320,243	4,244,405	5,
18	Citalopram	-	1,581,136	2,527,042	3,706,802	5,
19	Paroxetine	3,324,611	3,895,612	4,422,961	4,848,196	5,
20	Venlafaxine	-	-	-	-	4,
		57,304,135	72,618,158	90,110,018	121,048,939	172,4

Source: GMS (P) Board

Table 4.10 provides an analysis of the cost variables for the three highest cost prescribed medicines.

Table 4. 10
Analysis of the Top 3 Prescribed Medicines

	1998 €	1999 €	2000 €	2001 €	2002 €
Omeprazole					
Ingredient Cost	10,780,386	12,639,539	15,165,291	17,315,990	20,294,520
% of Scheme Total	5.35%	5.48%	5.60%	5.12%	4.68%
Frequency	230,201	265,834	308,970	343,270	390,784
Ingredient cost per item	47	48	49	50	52
Clinical Nutritional Products					
Ingredient Cost	6,739,513	8,680,823	10,939,257	14,547,510	19,032,229
% of Scheme Total	3.34%	3.77%	4.04%	4.30%	4.39%
Frequency	136,916	152,668	173,624	208,330	262,184
Ingredient cost per item	49	57	63	70	73
Pravastatin					
Ingredient Cost	4,381,818	5,708,746	7,573,203	11,227,459	17,007,971
% of Scheme Total	2.17%	2.48%	2.80%	3.32%	3.92%
Frequency	124,442	162,016	211,986	304,089	437,558
Ingredient cost per item	35	35	36	37	39

Source: GMS (P) Board

The following points are of note:

- There has been a significant increase in the total cost of Omeprazole, Lansoprazole, Esomeprazole and Pantoprazole (proton pump inhibitors), drugs which prevent the secretion of gastric acid. These are used in the treatment of reflux oesophagitis and peptic ulceration. The drugs concerned accounted for €40.6 of total GMS ingredient costs in 2002, or 7.6% of the total of such costs. By comparison, in 1998, these drugs cost €16m in total. The volume of prescriptions for these drugs has increased from 375,000 in 1998 to 933,000 in 2002, a 149% increase. The average cost per item prescribed has not significantly increased in the period.

  It should be noted that peptic ulcer disease is a common condition with "dyspepsia" accounting for between 5% to 10% of patient visits to GPs. Studies with the PPIs confirm their superior efficacy and cost effectiveness over other medications such as H2 receptor antagonists. In addition the identification of the organism Helicobacter Pylori's role in peptic ulcer disease has dramatically altered the treatment approach with the increasing use of PPI based eradication regimens.

- There has been a dramatic increase in the costs of statins in the period. These are used to lower cholesterol levels in combination with dietary measures. In 1998, the total ingredient cost of statins (Pravastatin and Atorvastatin) prescribed in the GMS totalled €4.4m. By 2002, the total cost of these statins was €28m. The number of prescriptions increased from 125,000 in 1998 to 757,000 in 2002. The average cost per item prescribed has increased from €35 to €39 in the period, a modest increase in average cost. The cost increase can therefore be largely attributed to increase levels of prescribing of these drugs.

  This increase in prescribing can be attributed to the publication of several major clinical trials between 1994 and 1998 demonstrating the beneficial effect of statins in primary and secondary prevention of coronary heart disease. Therefore the evidence for using statins was accumulating in the 1990s, which led to the prescribing rate increasing. The prescribing of statins was further encouraged following the publication of the Governments Cardiovascular Strategy in 1999. One of the aims of the strategy was to reduce the death rate from cardiovascular disease in the under 65 age group by 30% over the next ten years and to reduce the rate of ischaemic heart disease and stroke in people aged 65 to 74 by c. 15% by 2005. The Strategy stated that "it is important that treatment and preventative medications which have been shown to be effective are prescribed to all who would benefit". These developments and initiatives have, not surprisingly, led to an increase in the prescribing rate and associated cost of statins.

- There has been a marked increase in the total cost of Clinical Nutritional Products which increased from €6.7m to €19m in the period, which can be accounted for by:

  – increased levels of prescribing. Prescribing frequency increased from 137,000 in 1998 to 262,000 in 2002, an increase of 91%.

  – an increase in average cost per item, from €46 to €70 in the period

In overall terms, Table 4.9 demonstrates the significant increase in the Top 20 highest cost drugs in the five year period.

Table 4.11 sets out a comparison of the Distribution of Medicines and Appliances by Anatomical Therapeutic Chemical Classification between 1998 and 2002.

Table 4. 11
Distribution of Medicines and Appliances by Anatomical Therapeutic Chemical Classification

	1998 Precribing Frequency	1998 Ingredient Cost	2002 Precribing Frequency	2002 Ingredient Cost	Precribing Frequency % change	Ingredient Cost per Item % change
Alimentary Tract & Metabolism	2,142,221	34,116,867	3,350,581	71,677,111	156%	134%
Blood & Blood Forming Organs	901,243	2,207,982	2,218,637	10,905,916	246%	201%
Cardiovascular system	4,129,412	43,808,940	6,900,249	96,667,109	167%	132%
Dermatologicals	775,950	4,551,574	899,321	6,664,119	116%	126%
Genito Urinary System	1,064,772	6,149,024	1,314,948	18,292,049	123%	241%
Systemic Hormonal preparations	622,753	986,431	876,819	2,404,959	141%	173%
General Anti-infectives for Systemic use	1,857,087	13,931,162	1,898,300	18,872,507	102%	133%
Antinoeoplastic and Immunomodulating Agents	94,081	1,822,857	139,870	3,692,674	149%	136%
Musculo-Skeletal system	1,379,960	13,251,757	1,946,452	30,521,012	141%	163%
Nervous system	4,672,852	37,492,237	6,067,551	87,424,905	130%	180%
Antiparasitic products	99,740	595,586	73,627	444,822	74%	101%
Respiratory System	2,070,476	24,580,861	2,387,396	43,175,783	115%	152%
Sensory Organs	555,535	3,128,660	790,417	6,497,886	142%	146%
Various	459,966	14,902,890	772,767	36,087,596	168%	144%
	20,826,048	201,526,829	29,636,935	433,328,448	142%	151%

Source: GMS(P)B

The cost increases have arisen principally in four areas:

- Treatments in respect of the Alimentary Tract and Metabolism, where the cost escalation has related in the main to treatments for antacids, peptic ulcers and digestive enzyme related ailments, with costs for this category increasing from €34m in 1998 to €72m in 2002.
- Treatments in respect of the Cardiovascular system, principally the costs of calcium channel blockers, renin-angiostatin system and serum lipid reducing agents. Costs in respect of this category items have increased from €44m in 1998 to €97m in 2002.
- Treatments in respect of the Nervous system, principally relating to psycholeptics and psychoanaleptics, where total costs have increased from €37m to €87m in the past five years. The newer antipsychotic agents e.g. Olanzapine and Respiridone are as effective as the older agents but have a lower propensity to cause side effects, hence this has led to an increase in prescribing rates.
- Treatments in respect of the Respiratory system, principally anti-asthmatics, where costs have increased from €25m to €43m over the five years. These increases can be associated to therapeutic advances,

where recent guidelines advise Doctors of the importance of prescribing drugs such as inhaled steroids e.g. budesonide and beclomethasone and the long acting agonists e.g. salmeterol. This accounts for the increased prescribing and associated costs.

The total number of items prescribed increased from 20.8m to 29.6m over the period, an increase of 42.3%. Above average increases in the rate of prescribing took place in drugs and medicines provided in the area of Alimentary Tract and Metabolism, Blood and Blood Forming Organs, the Cardiovascular System and Antineoplastic and Immunomodulating Agents.

The cost per item on average increased by 151% in the period. The highest rates of increase in per item cost were for drugs and medicines in relation to the Genito Urinary system, Blood and Blood Forming Organs, Systemic Hormonal preparations, the Nervous System and the Musculo Skeletal system.

4.3.4. Generic Drug Utilisation

Research carried out by the National Centre for Pharmacoeconomics in St. James Hospital on the 2001 prescribing data for the GMS, highlighted the following:

- 60% of drugs dispensed were proprietary drugs where no generic equivalent was available
- 22% of prescription items were dispensed generically, with branded generics representing 17% and non-branded 5% of prescriptions.
- Over 18% of prescription items were dispensed as proprietary preparations when a generic equivalent was available.
- Approximately 13% of the total ingredient cost of drugs dispensed in the GMS in 2001 was spent on generic drugs.
- Just under 11% of the total ingredient cost was spent on proprietary drugs where there was an equivalent generic product available.

An examination of the Top 30 drugs of highest cost showed the following:

- These top 30 drugs on the GMS represent 48% of the total ingredient cost of drugs for 2001.
- From that top 30 list of drugs by expenditure, 11 had a generic equivalent.
- Annual savings from substituting the cheapest generic drug was estimated at c. €5.65m.

The evidence from the above is that in Ireland branded generic drugs are favoured. In many cases, the cost of such branded generics is only marginally below that of proprietary products. Cost savings can be achieved by prescribing the cheapest generic formulation available. However, the supply of generics is limited given the small scale of the Irish market. The estimated saving on GMS prescribed drugs from generic substitution is of the order of €6m per annum.

4.4. Drugs Payment Scheme (DPS)

The Drugs Payment Scheme was launched on 1 July 1999. It replaced the Drug Cost Subsidisation Scheme and the Drug Refund Scheme. The Drugs Payment Scheme is available to anyone in the State who has to pay more than a specified amount per month (€70 since the 2002 Budget) for prescribed medicines. Claimants must register with their Health Board in order to benefit.

Expenditure under this Scheme is driven by the following:

- The number of claimants

  Costs in any period will be impacted by the number of claimants. The number of claimants is difficult to predict as, while everyone in the State is eligible, a large proportion of the population have not registered with their Health Board under the Scheme. Variability in the number of claimants does arise from month to month.

- The number of items claimed

  The number of items claimed is the total number of items prescribed to claimants. This is often expressed in terms of the average number of items per claimant.

- The cost per item

  The cost per item is made up of the ingredient cost (2002 - €18.93) and the dispensing fee (2002 - €2.58) inclusive of VAT. Pharmacists receive a 50% mark-up on the ingredient cost in the DPS. The dispensing fee is paid to pharmacists for performing the service and is negotiated with the IPU and is subject to national pay agreements.

- Percentage paid by Health Boards.

  The percentage paid by Health Boards is the balance over the specified amount per month paid by the claimant.

The table below shows the trend in these variables:

Table 4. 12
DPS Variables

	2000 Outturn	2001 Outturn	2002 Outturn	2003 Estimate
Expenditure (€m)	138.6	181.3	195.4	199.6
		31%	8%	2%
Number of claimants	148,200	195,687	205,092	203,628
		32%	5%	-1%
Number of items per claimant per month	4.22	3.78	3.62	3.73
		-10%	-4%	3%
Number of items per claimant per annum	50.64	45.36	43.44	44.76
		-10%	-4%	3%
Total number of items	7,504,848	8,876,362	8,909,196	9,114,389
		18%	0%	2%
Cost per item	€ 26.84	€ 28.60	€ 30.97	€ 32.85
		7%	8%	6%
Average dispensing fee	€ 2.15	€ 2.38	€ 2.58	€ 2.57
		11%	8%	0%
Average ingredient cost per item	€ 16.46	€ 17.48	€ 18.93	€ 20.19
		6%	8%	7%
Average ingredient cost per item incl. 50% markup	€ 24.69	€ 26.22	€ 28.39	€ 30.28
		6%	8%	7%
% Paid by Health Board	66%	67%	67%	64%

(Figures are based on payments made in year)

Source: GMS (P) Board

The main points are as follows:

- Expenditure on this Scheme has increased from €139m in 2000 (the first full year of the new Scheme) to an estimated €200m for 2003, representing an increase of 44% over the period.
- The main area of increase has been in the number of claimants. This has increased by c. 40% in the period 2000 – 2002. This is expected to stabilise for 2003. What is clear, however, is that more people have been claiming under the DPS over recent years. This is in line with quality customer service principles, where individuals no longer have to reclaim expenditure from the

relevant Health Board, but will receive the refund automatically at the point of sale.

- The number of items per claimant has been falling since 2000, with a small increase expected in 2003.
- There have been moderate increases in the cost per item since 2000, with a 15% increase over the 2000 to 2002 period.

Table 4.13 sets out the Top 20 Medicines prescribed under the DPS in 2000 and 2001. It is evident that the DPS is experiencing significant escalations in costs in the areas of proton pump inhibitors and statins, similar to the GMS.

As the DPS was only introduced on 1 July 1999, comparable data is only available from 2000. In addition, as the method of introduction of the Scheme did not comply with statutory requirements there were further delays, which meant that the Scheme did not come into operation legally until March 2001. Therefore prescribing trends in the Scheme will only become apparent from 2001 onwards.

Table 4. 13
Trend of Top 20 Medicines in 2002

		2000 €	2001 €	2002 €
1	Omeprazole	10,329,563	10,633,565	9,682,681
2	Pravastatin	6,174,696	7,582,268	8,748,862
3	Atorvastatin	3,533,470	5,185,312	6,938,730
4	Salmeterol and Combinations	2,404,142	4,603,794	6,475,943
5	Esomeprazole	-	2,001,638	3,795,027
6	Lansoprazole	2,726,420	3,270,164	3,729,928
7	Venlafaxine	1,429,942	2,515,433	3,485,405
8	Clinical Nutritional Products	2,437,195	3,064,096	3,145,094
9	Ostomy/Urinary Requisites	2,779,772	3,241,875	3,111,584
10	Paroxetine	2,582,421	2,967,143	2,974,572
11	Citalopram	1,516,009	2,180,331	2,694,217
12	Follitropin Beta	1,481,190	1,871,414	2,554,459
13	Sertraline	1,880,259	2,317,907	2,475,312
14	Amlodipine	2,201,782	2,461,608	2,444,628
15	Olanzapine	1,178,128	1,792,679	2,258,550
16	Fluticasone (Inhaled)	2,495,880	2,580,110	2,227,744
17	Beclomethasone (Inhaled)	2,309,748	2,400,437	2,198,080
18	Orlistat	1,335,542	1,990,812	2,107,605
19	Fluoxetine	1,782,697	1,981,980	2,023,168
20	Pantoprazole	1,587,980	1,915,682	1,944,380
		52,166,835	66,558,248	75,015,969

Source: GMS (P) Board

Table 4.14 analyses the cost variables for the top three medicines within the DPS in greater detail.

Table 4. 14
Analysis of Top 3 Medicines

	2000 €	2001 €	2002 €
Omeprazole			
Ingredient Cost	10,329,563	10,633,565	9,682,681
% of Scheme Total	8.06%	6.74%	5.60%
Prescribing frequency	200,541	202,089	178,920
Ingredient cost per item (€)	52	53	54
Pravastatin			
Ingredient Cost	6,174,696	7,582,268	8,748,862
% of Scheme Total	4.82%	4.81%	5.06%
Prescribing frequency	162,538	193,943	212,881
Ingredient cost per item (€)	38	39	41
Atorvastatin			
Ingredient Cost	3,533,470	5,185,312	6,938,730
% of Scheme Total	2.76%	3.29%	4.01%
Prescribing frequency	103,056	147,975	191,367
Ingredient cost per item (€)	34	35	36

Source: GMS (P) Board

The following points are of note:

- Omeprazole has been the drug of highest overall ingredient cost in both the GMS and DPS since 1994. Prescribing frequency and ingredient cost per item have remained relatively stable within the DPS until 2001 and have fallen in 2002. Prescribing of other related drugs (Esomeprazole, Lanzoprazole) increased in 2002. The high levels of prescribing of Omeprazole is due principally to changes in the treatment of peptic ulcers.
- The second and third most commonly prescribed drugs in 2002 are statins (Pravastatin and Atorvastatin). Expenditure on these items has increased by 61% over the year 2000. The increase can be attributed to the beneficial effects of statins in primary and secondary prevention of coronary heart disease, and is consistent with the National Cardiovascular Strategy.

Table 4.15 sets out the Distribution of Medicines and Appliances by Anatomical Therapeutic Chemical Classification between 2000 and 2001 in the DPS.

Table 4. 15
Distribution of Medicines and Appliances by Anatomical Therapeutic Chemical Classification

	2000		2002			
	Precribing Frequency	Ingredient Cost	Precribing Frequency	Ingredient Cost	Precribing Frequency % change	Ingredient Cost per Item % change
Alimentary Tract and Metabolism	802,197	23,010,072	964,895	30,373,108	120%	110%
Blood and Blood Forming Organs	439,724	1,822,950	507,980	3,234,429	116%	154%
Cardiovascular system	1,886,344	31,163,426	2,020,135	38,700,554	107%	116%
Dermatologicals	287,930	3,398,533	385,400	5,957,197	134%	131%
Genito Urinary System	427,901	7,954,469	602,386	12,210,687	141%	109%
Systematic Hormonal preparations	238,295	542,744	288,166	1,012,778	121%	154%
General Anti-infectives for Systemic use	512,158	6,972,393	671,783	9,662,109	131%	106%
Antinoeoplastic and Immunomodulating agents	56,565	1,512,076	66,242	2,096,096	117%	118%
Musculo-Skeletal system	501,546	6,850,651	639,100	10,965,762	127%	126%
Nervous system	1,361,750	20,199,628	1,491,915	27,828,444	110%	126%
Antiparasitic products	18,839	112,293	24,510	187,730	130%	128%
Respiratory System	892,015	17,213,443	1,041,083	22,052,316	117%	110%
Sensory Organs	193,882	1,451,186	192,390	1,509,298	99%	105%
Various	157,139	5,932,764	166,950	7,167,388	106%	114%
	7,776,285	128,136,628	9,062,935	172,957,896	117%	116%

Source: GMS (P) Board

The following points are of note:

- Prescribing frequency increased by 17% over the two year period. The highest increase in the rate of prescribing occurred in the areas of the Genito Urinary System, Dermatologicals and General Anti-infectives for Systemic Use.
- Total ingredient costs increased on average by 35% in the two year period. The highest increases in ingredient costs occurred in Blood and Blood Forming Organs, Systematic Hormonal preparations, Dermatologicals and Antiparasitic products.
- In absolute cost terms, the most significant cost increases in the year occurred in the areas of Alimentary Tract and Metabolism, the Cardiovascular System and the Nervous System.

4.4.1. Generic Drug Utilisation - DPS

Research carried out by the National Centre for Pharmacoeconomics in St. James Hospital on the January to March 2001 prescribing data for the DPS, highlighted the following points;

- 12% of prescription items were dispensed generically, with branded generics representing 9.42% and non-branded generics 2.69%.
- Over 18% of prescription items were dispensed as proprietary preparations when a generic equivalent was available.
- Approximately 4.3% of the total ingredient cost of drugs dispensed from January to March 2001 was spent on generic drugs.
- Over 11% of the total ingredient cost of medications was spent on proprietary drugs where there was an equivalent generic product available.

These Top 30 drugs by expenditure within the DPS were examined by the Centre.

- These top 30 drugs represent 52% of the total ingredient cost of drugs for 2001 on the DPS.
- From that top 30 list of drugs by expenditure, 6 had a generic equivalent.
- Annual savings from substituting the cheapest generic drug was estimated at c. €2.41m on these 6 medications.

It is estimated that the savings which could realistically be achieved within the DPS from generic substitution is of the order of €3m per annum.

4.5. Long Term Illness Scheme (LTI)

The Long Term Illness Scheme is for those persons who are not already Medical card holders and who suffer from one or more of a schedule of illnesses (mental handicap, mental illness (for persons under 16 years only), phenylketonuria, cystic fibrosis, spina bifida, hydrocephalus, diabetes mellitus, diabetes insipidus, haemophilia, cerebral palsy, epilepsy, multiple sclerosis, muscular dystrophies, parkinsonism and acute leukaemia). Such persons are entitled to claim all necessary drug costs under the LTI Scheme.

Expenditure under this Scheme is driven by:

- The number of people receiving prescriptions

  While the Health Boards have a panel of registered people under LTI, not all those registered are actively claiming under the Scheme. As a result, the GMS(P)B models its estimates based on the number of people claiming under the Scheme.

- The number of items

  The number of items is the number of items per prescription multiplied by the numbers prescribed to.

- The cost per item

  The cost per item is composed of the ingredient cost per item (2002 - €29.57), the dispensing fee (2002 - €2.82), inclusive of VAT and includes a 50% makeup on ingredient cost for the pharmacist. The dispensing fee is negotiated with the IPU and is subject to national pay agreements.

The table below shows the trend in these variables.

Table 4. 16
LTI Variables

	1999 Outturn	2000 Outturn	2001 Outturn	2002 Outturn	2003 Estimate
Expenditure (€m)	33.6	41.4	52.3	61.2	71.0
		23%	26%	17%	16%
Number registered	73,311	78,661	84,729	90,199	94,282
		7%	8%	6%	5%
Number of claimants	26,779	27,082	29,713	31,066	33,612
		1%	10%	5%	8%
Number of items per claimant per month	2.70	2.95	3.50	3.52	3.52
		9%	19%	1%	0%
Number of items per person per annum	32.45	35.39	42.05	42.24	42.24
		9%	19%	0%	0%
Total number of items	869,252	961,343	1,134,612	1,256,559	1,421,576
		11%	18%	11%	13%
Cost per item	€ 38.25	€ 41.55	€ 44.15	€ 47.17	€ 49.59
		9%	6%	7%	5%
Average dispensing fee	€ 2.23	€ 2.31	€ 2.54	€ 2.82	€ 2.73
		4%	10%	11%	-3%
Average ingredient cost per item	€ 24.01	€ 26.16	€ 27.74	€ 29.57	€ 31.24
		9%	6%	7%	6%
Average ingredient cost per item+50% mark-up	€ 36.02	€ 39.24	€ 41.61	€ 44.35	€ 46.86
		9%	6%	7%	6%

(Figures are based on payments made in year)

Source: GMS (P) Board

The following points are of note:

- Expenditure on the Scheme is expected to increase by 111% from €33.6m in 1999 to €71m in 2003.
- The average number of claimants is projected to increase by 25% in 2003 over 1999 levels.
- The average number of items prescribed per person per annum increased by c.30% from 1999 to 2002. The prescribing rate has remained stable for 2001 and 2002 and is projected to remain so for 2003.
- The average cost per item has increased by between 5% and 9% each year.

Table 4.17 sets out the Top 10 Medicines prescribed under the LTI.

Table 4. 17
Trend of Top 10 Medicines in 2002

		1998 €	1999 €	2000 €	2001 €	2002 €
1	Diagnostics Products	3,046,446	3,637,664	4,482,540	5,991,569	7,159,717
2	Clinical Nutritional Products	1,341,205	1,695,889	2,007,058	2,437,237	2,829,503
3	Insulin (Human),Comb Inter/ Fast Acting	1,182,832	1,395,507	1,591,334	1,779,669	1,826,402
4	Lamotrigine	641,858	788,451	954,757	1,321,096	1,639,171
5	Insulin (Human),Intermediate Acting	962,439	1,116,754	1,253,259	1,424,093	1,624,856
6	Insulin (Human),Fast Acting	1,086,670	1,265,642	1,380,412	1,364,528	1,333,662
7	Needles/Syringes/Lancets/Swabs	699,101	742,116	814,710	941,579	1,051,030
8	Pravastatin	75,289	115,412	339,478	736,499	1,040,819
9	Atorvastatin	-	-	215,600	541,554	940,898
10	Enzyme Preparations	628,448	670,184	694,411	738,860	794,061
		9,664,288	11,427,619	13,733,559	17,276,684	20,240,119

Source: GMS (P) Board

Table 4.18 analyses the cost variables for the top three medicines in greater detail.

Table 4. 18
Analysis of Top 3 Medicines

	1998 €	1999 €	2000 €	2001 €	2002 €
Diagnostics Products					
Ingredient Cost	3,046,446	3,637,664	4,482,540	5,991,569	7,159,717
% of Scheme Total	18.28%	18.49%	18.77%	19.99%	20.42%
Prescibing frequency	112,547	121,264	131,605	149,341	168,091
Ingredient cost per item (€)	27	30	34	40	43
Clinical Nutritional Products					
Ingredient Cost	1,341,205	1,695,889	2,007,058	2,437,237	2,829,503
% of Scheme Total	8.05%	8.62%	8.41%	8.13%	8.07%
Prescribing frequency	22,916	24,028	24,831	26,939	28,466
Ingredient cost per item (€)	59	71	81	90	99
Insulin (Human),Comb Inter/ Fast Acting					
Ingredient Cost	1,182,832	1,395,507	1,591,334	1,779,669	1,826,402
% of Scheme Total	7.10%	7.10%	6.66%	5.94%	5.21%
Prescribing frequency	27,700	29,164	32,145	35,085	35,604
Ingredient cost per item (€)	43	48	50	51	51

Source: GMS (P) Board

The following points are of note:

- The cost of diagnostic products has more than doubled in the period reflecting both increased prescribing frequency and a 59% increase in the average cost per item.
- Clinical Nutritional Products have in total increased in cost by 111% between 1998 and 2002. The principal reason for this increase is the 68% increase in ingredient cost per item.
- The total ingredient cost of Insulin has increased by 54% over the period. This is as a result of an increase in prescribing frequency of 28% and an 18.6% increase in the ingredient cost per item.
- The increase in ingredient cost of drugs in the LTI can be attributed to a number of factors including, recent medical advances, the development of new and more expensive medicines and the increase in the number and type of drugs included on the LTI, for example, statins are now included on the LTI as part of the treatment for diabetes. It should also be noted that many of the recent medical advances involve multiple drug therapy, i.e. where the number of drugs used to treat a condition has increased.

4.6. Comparison of Schemes

Table 4.19 draws a comparison for 2001 and 2002 between the cost variables of the Schemes discussed in the sections above, namely the GMS, DPS and LTI.

Table 4. 19
Scheme Comparison

	GMS		DPS		LTI	
	2001	2002	2001	2002	2001	2002
Number of eligible persons	1,161,539	1,207,526			84,729	90,199
Number of items per eligible person per month	1.77	1.99				
Number of items per eligible person per annum	21.28	23.93				
Number of claimants			195,687	205,092	29,713	31,066
Number of items per claimant			3.78	3.62	3.50	3.52
Number of items per claimant per annum			45.36	43.44	42.05	42.24
Total number of items	24,717,555	28,896,085	8,876,362	8,909,196	1,134,612	1,256,559
Cost per item	€ 15.66	€ 17.13	€ 28.60	€ 30.97	€ 44.15	€ 47.17
Average dispensing fee	€ 2.77	2.77	€ 2.38	€ 2.58	€ 2.54	€ 2.82
Average ingredient cost per item	€ 12.89	14.36	€ 17.48	€ 18.93	€ 27.74	€ 29.57
Average ingredient cost per item+50% markup *	€ 12.89	14.36	€ 26.22	€ 28.39	€ 41.61	€ 44.36
Total dispensing fee cost	€ 68,467,627	€ 80,042,155	€ 21,134,175	€ 22,985,727	€ 2,886,844	€ 3,543,496
Total ingredient cost	€ 318,609,284	€ 414,947,781	€ 155,164,583	€ 168,651,089	€ 31,472,746	€ 37,156,450
Total ingredient cost incl 50% markup	€ 318,609,284	€ 414,947,781	€ 232,746,874	€ 252,932,088	€ 47,209,119	€ 55,734,674
Total cost per estimate	€ 416,718,723	€ 533,797,864	€ 181,333,134	€ 195,410,956	€ 52,321,352	€ 61,236,886

Note: * The 50% Mark-up only applies to the DPS and LTI Schemes

Source: GMS (P) Board

The following points should be noted in respect of the table above:

- The LTI Scheme prescribes a different type and cost base of drugs compared to the GMS and DPS Schemes.
- There is a marked difference in the average ingredient cost per item between the GMS (€14.36 in 20021) and DPS (€18.93 in 2002). This can be explained by the inclusion of certain drugs on the DPS only, as well as differing mix between the Schemes. A 50% mark up to pharmacists applies in the DPS and LTI, not the GMS. This represents a significant cost.
- The LTI operates essentially as a GMS Scheme, in that it does not operate on a threshold basis like the DPS. However Pharmacists still get the benefit of the 50% mark-up on ingredient cost as in the DPS. On this basis it would be more cost efficient to incorporate the LTI into the GMS.

4.7. High Tech Drugs (HTD)

This Scheme is in place for the supply of High Tech Drugs through pharmacies. Such drugs are generally prescribed in hospital and would include medicines for transplant and cancer patients.

Expenditure is composed of two cost items:

- Wholesalers' costs

  Drugs are ordered and delivered directly to the Pharmacist from the wholesaler. The wholesaler then invoices GMS(P)B directly for the cost. Wholesalers' costs are, therefore, the cost of the drugs / medicines. As can be seen from Table 4.1, this has more than doubled since 1999.

- Pharmacists' costs

  The Pharmacist receives a patient care fee for dispensing the drugs. This fee is negotiated with the IPU and although it has increased substantially in percentage terms, it represents a small portion of the overall cost of the High Tech Drugs Scheme.

4.8. Others

Other areas of significant increased expenditure have been as follows:

4.8.1. Special Type Consultations / Special Services / Out of Hours

This cost heading has doubled since 1999. Part of the reason for this was the introduction in 2001 of four new vaccines (Pneumococcal, Influenza, Pneumococcal/Influenza and Hepatitis B) which added additional expenditure in 2001 of €8.5m. Contractors are also benefiting from improved terms and conditions on out of hours work. The costs for 2002 were €40m and are expected to reach €44m in 2003.

4.8.2. Practice Secretary and Nursing Subsidy

This Scheme was designed to encourage GPs to improve the standard of their practice by recruiting a practice secretary and nurse. The cost of this Scheme is projected to increase by 163% for the period 1999 to 2003. The implementation of the Over 70s Agreement had an impact on this cost heading, as the subsidy amount that a GP receives is in relation to panel size. With the Agreement, New Over 70s were given a weighting of 3:1, therefore increasing the amount a GP is now able to claim for Practice Secretarial and Nursing subsidy.

4.8.3. Indicative Drug Target Scheme

The amounts drawn down in savings from this Scheme have increased from €8.5m in 1999 to €17.6m in 2002. Expenditure in 2003 is projected to increase significantly to €25.1m. This is due to the inclusion of arrears, which have yet to be authorised for payment by the DOH&C, of c.€7m payable to both the DOH&C and the Health Boards. This Scheme is considered in more detail in Section 5 of this report.

4.8.4. Dental Treatment Services Scheme

Expenditure under this Scheme is projected to grow by 25% between 2000 and 2003. The most significant increase occurred in 2000 when costs doubled from €18.6m in 1999 to €38.4m. This was as a result of the extension of the Scheme to benefit the 35/64 age group, which completed the phased introduction of the Scheme to include all GMS persons. Expenditure has increased at moderate levels since.

4.8.5. Health Board Community Ophthalmic Scheme

This Scheme was launched in July 1999, so expenditure levels are best judged by reference to the 2000 outturn. Costs are projected to increase by 57% between 2000 and 2003.

4.8.6. Administration/Technical Services/HB Stationery

Costs under this heading are projected to increase significantly in 2003, due to the inclusion of a provision of €8.7m to cover the following items;

Table 4. 20
Provisions

	€m
Grant to Pharmacists for implementation of IT systems	5.3
Training for Pharmacists (pending negotiations with IPU)	3.4
	8.7

Source: GMS(P)B

4.9. International Comparisons

It is evident from trends in pharmacy claims in the GMS, DPS and LTI that expenditure on medicines has increased significantly in recent years. Total expenditure in 2002 was in the order of €790m, an increase of €132m on the previous year. The cost of pharmacy claims for 2003 is estimated at €922.

It should be noted that this trend in drug expenditure is similar to trends in Europe and the US. In 2001 Denmark recorded the lowest annual increase in expenditure on medicines in Europe of 10%, while over the same period expenditure on medicines in Italy increased by 33%. This places Ireland with an 18% annual increase in 2001 in line with European trends. In the US drug expenditure grew by 17.3% from 1999 to 2000, representing the fastest growing component of healthcare.

This trend for increasing drug expenditure can be attributed to a number of general factors as follows;

- An aging population
- Earlier diagnosis of chronic illness, with subsequent early introduction of long-term drug therapy
- Increased patient expectation regarding the range of treatments and services available

In all jurisdictions, the two main specific cost drivers are notably

- The effect of product mix, i.e. the impact of prescribing new and more expensive medications.
- The volume effect, i.e. the prescribing of a greater number of medicines for patients, hence an increase in average prescribing rates.

Against a backdrop of rapidly escalating costs, efforts are being made internationally to improve the cost effectiveness of prescribing. Policies have been implemented to try to promote an increase in generic prescribing, with differing degrees of success. The range of measures applied include the implementation of financial incentives for cost effective prescribing, the active promotion of generic prescribing, and greater information provision on prescribing patterns. Generic substitution has been national policy in Denmark for over a decade now. In Australia, reimbursement is made at set prices for given drugs to incentivise generic substitution. Patients who seek higher cost proprietary or branded generics must pay the cost differential themselves. The system in Ireland currently favours the prescribing of branded generic drugs and, as noted earlier, there are opportunities to affect cost savings through more rigid adherence to prescribing cheaper generic formulations.

5. ANALYSIS OF SCHEME COST DRIVERS

Section 4 provided an analysis of the Schemes and of the trend in costs. In this Section, we provide a high level analysis of the principal reasons for cost increases in the schemes.

5.1. Overview

Table 5.1 sets out an analysis of cost increases analysed by key cost driver. The effects of the extension of the Medical Card Scheme to all Over 70s have been separately identified in Section 5.2.

Table 5. 1
Cost Drivers of Schemes

OVERVIEW OF COST MOVEMENTS	2000 €m	2001 €m	2002 €m	2003 €m
Capitation fees				
Changes in panel numbers (excl Over 70's)	(2)	(1)	(1)	(1)
New Over 70'S Agreement	-	12	36	15
Other	4	8	17	(6)
	2	19	52	8
Cost of Prescriptions				
GMS				
Changes in panel numbers (excl Over 70's)	(5)	(10)	(10)	(9)
Increase in rate of Prescribing	24	12	25	46
Increase in Dispensing fees	3	5	5	1
Increase in Ingredient costs	33	40	40	50
New Over 70'S Agreement	-	24	42	29
Other	2	15	15	1
	57	86	117	118
DPS				
Changes in number of claimants	-	43	8	(1)
Increase in rate of Prescribing	-	(19)	(8)	6
Increase in Dispensing fees	-	1	1	-
Increase in Ingredient costs	-	6	9	8
Increase in mark up to pharmacists	-	3	4	4
Other	-	9	-	(13)
	-	43	14	4
LTI				
Changes in number of claimants	-	4	2	5
Increase in rate of Prescribing	3	8	-	-
Increase in Dispensing fees	-	-	-	-
Increase in Ingredient costs	2	2	3	2
Increase in mark up to pharmacists	1	1	1	2
Other	1	(4)	2	1
	7	11	8	10
HIGH TECH DRUGS	10	13	18	21
OTHER	109	33	28	35
TOTAL INCREASE IN NET COSTS PER YEAR	185	205	237	196

It is evident from the table that the principal drivers of increased costs are

- Costs associated with increases in the rate of prescribing, which across the GMS, DPS and LTI amounted to c.€17m in 2002.
- Ingredient cost increases, which across the GMS, DPS and LTI amounted to c.€52m in 2002. In addition, the cost of the High Tech Drugs Scheme increased by €18m in 2002. There is a price freeze agreement in place with IPHA originating in 1997 and extending to 2004. The increases in cost are therefore related to new drugs which come onto the market.
- The introduction of the New Over 70's Agreement.

It is also evident that changes in the numbers of persons eligible under the various Schemes (other than in respect of the Over 70s) have not been a significant factor in increasing costs. In fact within the GMS, the existing panel, excluding New Over 70s, has been decreasing in size.

5.1.1. Prescribing Patterns

It is difficult to develop a detailed comparison of the level of prescribed medication provided under GMS schemes of all kinds with the level of prescribing for populations outside Ireland. This is because in Ireland each GMS scheme covers only a sub-group of the population whereas available data from other countries attempts to provide data on the entire population. Ideally a detailed sub-analysis would be carried out on each age and income group between countries but this is beyond the scope of the current review.

The available data suggest that in 2002, GMS schemes had rates of prescribed items per person per year that varied considerably due to the characteristics of each eligible population. Under the LTI scheme, about 14 items were prescribed per eligible person per year while under the main GMS cardholder scheme, 23.9 items per person per year were prescribed.

International comparisons of prescribed items suffer from some deficiencies as the "item" is not defined in a standard way. For example, an item might comprise one or two months' supply of a medicine. Under the main GMS scheme, a rate of prescribing of 23.9 items per year is broadly comparable with Portugal (1997) and above Austria, Germany, UK and the Nordic countries, for example. (Data source: OECD reported by Office of Health Economics. Data points not all consistent in time.) Given the age of this data, however, it is likely that some of this group of countries may have higher rates than Ireland for 2002.

However, this crude comparison does not address the age structure of the different populations, which changes considerably the position of Ireland. For example, in overall prescribing, the UK has a reported rate for 2001 of 10.6 items per person per year. But this rises to 32.5 items per year for the elderly in the UK (defined as those over 60 in 2001). This comparison, taken together with the position of the UK in the wider European league table of prescribing (where it is relatively low, aside from the Nordic countries) suggests that in practice GMS members are being prescribed lower, rather than higher, volumes of prescribed medicines per year.

Given the low level of prescribing in Ireland suggested by the comparisons above, there is clearly scope for prescribing to rise significantly in the future, e.g. if prescribing practice in Ireland is influenced by the introduction of service frameworks and guidelines in the UK, in a format (e.g. on the internet) that gives Irish doctors ready access to protocols and guidelines in English. This will have the effect of continuing to push GMS costs up.

We are also concerned that as the system currently operates, there is no requirement for participants in the GMS System to prescribe cheaper but equally effective drugs and medications. Furthermore, retail pharmacies negotiate discounts with wholesalers for drugs supplied under the GMS, DPS or LTI, which results in a situation where pharmacists may benefit financially from the prescription of higher cost drugs and medical products. Drug companies will, naturally, seek to influence doctors and pharmacists to list and prescribe drugs which maximise the profits of the drug companies concerned. The fact that GPs or Consultants lack sufficient incentives to prescribe cost efficiently under the current regime, increases the risk that prescribing may not be cost effective. We consider that the absence of protocols on drug prescribing within the GMS System is not conducive to achieving best value for money. In order to address these issues, the following should be considered:

- Promote generic substitution. Where a prescriber diverges from the approved list or chooses a more expensive alternative, the patient should be required to pay the cost differential. The savings which might be achieved, although worthwhile, are likely to amount to c.€9m per annum across the GMS and DPS.
- Reimbursing pharmacists for work performed on a fee basis. The current arrangements under which pharmacists receive part of their remuneration by way of a 50% mark-up on products prescribed under the DPS and LTI should be discontinued, as higher cost prescribing results in increased reimbursement for pharmacists. This mark up arrangement was negotiated in the early development of the Schemes.
- Regular monitoring of areas where prescribing patterns are markedly changing, e.g. identifying trends in cardiovascular, endocrine treatments, etc.
- Regular monitoring of prescribing patterns by GPs to identify those GPs who are out of line with normal patterns, repeat prescribing, etc.

- Introducing more effective incentives to prescribers for cost efficient prescribing. The IDTS was a Scheme designed for this purpose in the past and is under review to assess how it might be improved and developed.
- Introducing measures to ensure that newly approved drugs are being appropriately prescribed and targeted at the appropriate patient group.
- Establishing regular independent assessment of medical technologies to determine whether new drugs achieve improved outcomes, and to advise on which drugs should be prescribed for given conditions.

In the UK, the Prescription Pricing Authority issues regular reports on the growth in prescription volume and costs, which provide useful information of the type outlined above. The GMS(P)B does prepare a detailed Annual Statistical Report and also provides data to the Pharmaco Economic Unit in St. James Hospital who produce research notes on trends in the schemes. This work is useful, however mechanisms to ensure the recommendations of the work are implemented need to be put in place.

5.1.2. Analysis of individual medicines

A detailed analysis of the growth of expenditure on individual medicines is provided in Section 4, and highlights a number of key issues. For the main GMS scheme, there is a substantial level of expenditure on the leading medicines. These include statins, a group of drugs now widely established as a key part of the strategy for the reduction of heart disease and its consequences. While there are arguments in favour of alternative strategies, use of statins is growing world-wide and is likely to grow for some time to come, given the uncertainty over the threshold at which statin treatment should begin in those without symptoms. There are estimates in the research literature of the potential level of statin medication under different scenarios and different treatment thresholds. However, to apply these to Ireland and GMS would require a careful analysis of the age structure and, potentially, the epidemiology of the currently registered GMS populations.

A somewhat different position exists for some high expenditure medicines, in particular Proton Pump Inhibitors (PPIs). While these drugs are seen as effective and popular with patients, previous analysis in Ireland by the Comptroller and Auditor General has suggested that they may be being over-used for maintenance of patients with a range of gastric symptoms. Alternative strategies were suggested by the C&AG but we are not aware of active steps taken nationally to review the position and develop an implementation strategy for the alternative approaches to treatment or maintenance. The entry of generic versions of one of the leading PPIs has also not produced the scale of price reductions that might have been anticipated given past generic medicine entry to the market. This may reflect the recent turbulence in the generics market in Europe, leading to the adoption of different pricing strategies.

Although it is not currently a responsibility of the GMS(P)B, it could potentially develop a greater role in this area in future in examining alternative clinical approaches.

For other medicines that incur high costs for GMS, an analysis of their appropriateness would require an age-standardised analysis of prescribing linked to available protocols and treatment pathways recommended to Irish physicians or their colleagues in other English-speaking countries. It is important to assess whether the prescription of such higher cost medicines is being properly targeted at the patient groups requiring such medication, or whether over time the prescribing by GPs becomes less targeted and made available to a wider population. This is likely to require research at the level of the individual therapeutic class or individual medicine to take forward.

If, as we anticipate from UK data, price reductions are becoming less common when generics are introduced, then as highlighted in Section 4 this may offer a smaller potential saving on the costs of GMS going forward. Experience suggests that generic prices are no longer as low as in the past and so the cost savings resulting from generic products entering the market may be smaller than anticipated. Also, prices depend on the degree of competition in the generics market and the extent to which different manufacturers are looking for an increased market share. If competition is weaker, then again prices may not fall significantly.

It is essential going forward that changes in medical technology are subject to appraisal within the GMS System to ensure that the quality and cost effectiveness of different technologies are robustly appraised. Heretofore, once a particular drug has been approved for use by the Irish Medicines Board, it is listed as acceptable and safe for use. These drugs then become listed as licensed drugs and agreed between the Department of Heath & Children and the Irish Pharmaceutical Healthcare Association. Whilst initially, new drugs may be prescribed primarily by hospital based consultants at targeted groups, the tendency has been for these drugs to filter down through the system and become increasingly prescribed by GPs in the community, thus increasing the rate of prescribing to a more general population and engendering more widespread use.

On a more general level, it can be expected that prescribing rates will continue to increase in Ireland in the future given our low rates of prescribing in comparison with international norms, and as best practice is applied.

All of this points to the need for an independent assessment of whether such changed prescribing achieves better patient outcomes. At present, no such evaluation takes place. Increasing amounts of public funds are being spent on a system where the costs are driven by prescribers who have no accountability for their actions, and where there is no evidential assessment of the benefits or otherwise of such changes in prescribing patterns. It is hardly a basis for achieving value for money.

5.2. Effect on Relevant Schemes of Over 70s Agreement

The Minister for Finance in his budget speech for 2001 announced the extension of the Medical Card Scheme to cover all persons aged over 70 in the population. The implementation of this initiative required the cooperation of both the IMO and the IPU. The negotiating power of these two bodies was greatly strengthened by the fact that the measure had already been announced in the budget day speech. An agreement was finally reached in late June 2001 and resulted in a range of changes to existing GMS Schemes, highlighted in Table 5.2 below which sets out an estimate of the costs which arose as a direct consequence of the aforementioned negotiations with the contractor unions. Not all are directly linked to the new over 70s Agreement; however, there were matters which were negotiated as part of the overall agenda pursued by the contractor unions at the time their agreement to the extension of the over 70s Scheme was being sought.

Table 5. 2
Cost Estimate of Over 70's Agreement

	2001 €m	2002 €m	2003 €m	2004 €m
Payments to Doctors				
Capitation	9.0	34.0	43.0	50.0
Nursing Homes		4.0	9.0	9.5
Discretionary Medical Cards	2.5	10.0	10.4	11.0
Practice Nurses and Secretaries	5.0	8.1	8.1	8.1
Practice Support	0.6	0.6	0.6	0.6
Rural Practice Allowance	0.3	0.5	0.5	0.5
Asylum Seekers		2.6	2.6	3.0
District Medical Officers salary	0.4	0.4	0.4	0.4
Prescribing and Dispensing				
Fees	11.0	11.0	18.0	22.0
Lumpsum	5.7	9.5	5.7	1.9
Cost of prescriptions *	7.0	45.0	71.0	90.0
	41.5	125.7	169.3	197.0

* Figure is net of saving on DPS from transfer of eligible persons to GMS Scheme

The following points are relevant to the above table:

Payments to Doctors

The IMO negotiated the following amendments to GMS Schemes on behalf of the GPs.

5. Analysis of Scheme Cost Drivers

Capitation Fees

Capitation Fees have been affected in two ways:

- The increase in the number of eligible persons for a Medical Card, which rose from 61,000 by December 2001, to c.83,000 by December 2002 and a projected 93,000 by December 2003.
- GPs are paid at a fixed rate of €462 (subject to the PPF) for each additional over 70 Medical Card holder on a panel

Discretionary Medical Card Holders

A sum of €2.54m was provided and allocated pro rata on the basis of 20,000 discretionary medical cards from July to December 2001. It is expected that this fee will be paid on an ongoing basis for each calendar year thereafter.

Practice Nurses and Secretaries

The subsidy for which a GP is eligible under this heading is calculated based on panel size. For the purposes of this calculation, a weighting of 3:1 was agreed for each person over 70. The estimated total cost of this is €8.07m per annum.

Practice Support

The annual practice support grant was increased resulting in increased expenditure of €634,870 per annum.

Rural Practice Allowance

This was increased with effect from July 2001, with an estimated additional cost of €478,000 per annum.

Asylum Seekers

Once off payments to GPs in respect of asylum seekers were agreed, and were made in October 2002, totalling €2.6m.

District Medical Officers (DMO) Salary

The salary paid to a DMO was increased with effect from 1 January 2001.

Prescribing and Dispensing

As part of the extension of eligibility for a Medical Card to the over 70s population an agreement was reached with the IPU to compensate pharmacists for the fact that claims for over 70s would now come under the GMS Scheme rather than the DPS Scheme. The effects of this switch between Schemes would otherwise have caused pharmacists to lose out on the 50% mark-up received on ingredient costs. The following fee increases and lump sum payments were agreed.

5. Analysis of Scheme Cost Drivers

Increase in Fees

The increase in fees is to be applied as follows:

- A retrospective payment of €3.81m in Autumn 2001 in respect of items dispensed to Over 70s patients from 1 March 1999 to 30 June 2001. The 1% lumpsum, payable in respect of this fee increase is an additional €3m.
- €2.54m payable further fee increase in respect of fees from 1 July 2001 to 30 June 2002
- €3.81m payable as a further fee increase in respect of fees from 1 July 2002 to 30 June 2003

These fee increases are to be applied on a cumulative basis, and are paid on a per item basis for prescriptions dispensed to over 70s patients. The GMS(P)B made fee payments based on items actually dispensed to over 70s of €7.5m in the year ended 30 June 2002.

Lumpsum Payments

The lumpsum payments are structured in the following way:

- Between 1 July 2001 and 30 June 2002, €11.43m, in total. This lump sum will reduce over a three year period to zero and be replaced by a corresponding increase in dispensing fees over that period.
- Between 1 July 2002 and 30 June 2003, €7.62m, in total, paid monthly
- Between 1 July 2003 and 30 June 2004, €3.81m, in total, paid monthly

It is evident that the extension of the Medical Card Scheme to all Over 70s has come at a significant cost. The ageing population in itself means an increasing number of Over 70s will enter the Scheme going forward. With the increases already in evidence in prescribing patterns and drug costs, the cost of the Over 70's Agreement will continue to rise in the years ahead.

The manner in which the New Over 70's Agreement was introduced highlights the importance of planning properly for amendments/extensions to Schemes, and the necessity for the GMS(P)B to be centrally involved. Furthermore, Schemes should not be announced until negotiations with contractors are settled. The fact that the announcement of the extension of Medical Card cover to all Over 70s preceded such negotiations left the public sector in the weakest of negotiating positions, a matter which was exploited by the contractor unions. The consequent "ripple" effect is evident in Table 5.2, with a whole range of items negotiated by the unions prior to reaching agreement of the extension of the Medical Card Scheme.

It is vital, given the scale of expenditure now being incurred in the GMS in servicing the over 70s population, that an evaluation is carried out of the costs/benefits of the Scheme in a wider value for money context, for example assessing whether there are improved health outcomes, reduced admissions to the acute sector, increased life expectancy etc in this population group.

5.3. Improving Accountability at Service Provider Level

Any attempt to improve financial management and accountability within the GMS must involve the service providers. It is a fundamental principle of any system of good financial management and accountability that service providers are aware of, take into account and are ultimately accountable for the financial consequences of decisions they make. For this reason, it is essential that service providers within the GMS system (be they doctors, dentists, ophthalmologists or other medical professionals) are accountable for resources expended as a consequence of their decisions.

This is not an easy task. It is a feature of the Irish health care system as a whole that clinicians and doctors are not accountable for their decisions in financial terms. In order to change this, the perception by some clinicians that any new financial management or accountability arrangements are simply a cost reduction exercise (which they are not) must be overcome. Furthermore, and more importantly, improving financial accountability must recognise the requirement that doctors retain the appropriate level of clinical autonomy in decisions made about their patients. There is no greater certainty that the imposition of inappropriate financial controls and accountability measures will result in claims being made that patients are being denied the required care, which in turn will create adverse publicity, and cause otherwise good management and accountability measures to be discredited. In our view, the only way to overcome these issues is to get clinicians to act as a form of budget holder and budget manager, and to allow them to plan the use of the resources allocated to them.

In order to address the issue of greater financial management and accountability at service provider level, a number of issues need to be addressed in consultation with those providers:

- The objectives of any new arrangements need to be understood and an overall framework for improved financial management and accountability agreed. Clarity on the responsibilities of clinicians in terms of planning, and managing resources will be part of this process. The co-operation of the medical unions should be sought to support this initiative.

- Agreement on the holding of budgets by service providers, together with agreement on the restricted set of circumstances in which any further budget allocation can be made to that service provider. We see budget holding at GP level as a central part of improving financial accountability in the GMS system. Budgets set at GP/contractors level should reflect the patient population covered, and would include assumptions on attendance, prescribing patterns and treatments. Improved incentives for GPs/Contractors to prescribe cost efficiently should also be introduced.

- Methods to provide the relevant service providers with information on their practices, particularly in comparison to their peers, should be agreed. This would include comparative information on prescribing patterns, use of high cost drugs, alternative treatment patterns used by other clinicians etc. Without the supply of relevant data, GPs and other clinicians cannot be expected to manage budget-holding responsibilities effectively.

- Agreement on appropriate incentives to service providers for efficient handling of the budget.
- Agreements on the consequences for clinicians of not meeting the agreed responsibilities.

Formal reporting by GPs/contractors should take place quarterly on performance against their budgets and on their capitation panels, including notification of known changes required to the panel for example for change of address, deaths etc.

6. GOVERNANCE AND ACCOUNTABILITY

6.1. Statutory Instruments

The GMS(P)B was established under the General Medical Services (Payments) Board (Establishment) Order 1972. This order provides that the health boards shall arrange jointly the performance of the following functions in relation to the provision of services under Section 58 and Section 59 (1) of the Health Act 1970:

- The calculation of payments to be made for such services
- The making of such payments
- The verification of the equity and reasonableness of claims in relation to such services
- The compilation of statistics and other information in relation to such services and the communication of such information to persons concerned with the operation of such services

Statutory Instrument No. 442 of 1994 provided that the Health Boards shall arrange jointly for the performance of the provision of Dental Services under Section 67 (1) of the Act through the General Medical Services (Payments) Board.

Statutory Instrument No. 75 of 2000 amended the General Medical Services (Payments) Board (Establishment) Order 1972 to take into account the establishment of the Eastern Regional Health Authority.

6.2. Composition of Board of GMS(P)B

The Board of the GMS consists of fourteen members, comprised as follows;

- One officer of each Health Board (including the three Area Health Boards) and the ERHA designated by the CEO of the Health Board
- Three other persons appointed by the members above (currently three officials of the Department of Health & Children)

A member can hold office for such period as determined by the CEO on designation. A member does not receive remuneration for serving on the Board.

The Board when required elects a chairman and vice-chairman from its members.

The quorum of the Board is five, and as many meetings as is necessary for the Board to perform its functions are held.

6.3. Roles and Responsibilities

The main parties involved in the operations of GMS System are:-

- The Department of Finance

- The Department of Health and Children (DoH & C)
- General Medical Services (Payment) Board (GMS(P)B)
- Health Boards

Table 6.1 provides a summary of the roles and responsibility of each of the above agencies involved.

Table 6. 1
Principal Roles and Responsibilities

Department of Finance
• Funding of DoH&C in respect of GMS(P)B • Monitoring of GMS expenditures through DOH&C returns

Department of Health & Children
• Setting policy regarding Schemes administered within GMS(P)B • Design of Schemes • Negotiation of relevant aspects of Schemes with the IPU • Negotiation of funding for GMS with Department of Finance, including Supplementary Estimates Monitoring of GMS • Direct funding of GMS(P)B for certain GMS Schemes • Dealing with Parliamentary Questions • Monitoring of GMS expenditures

General Medical Services (Payments) Board
• The calculation of payments for GMS Schemes • The making of payments for GMS Schemes • The verification of the accuracy and reasonableness of claims • The compilation of statistics and other information in relation to schemes

Health Boards
• Determining client eligibility for schemes • Registering eligible individuals on relevant patient databases / panels • Reimbursing GMS(P)B for amounts paid by it on behalf of Boards on certain schemes, i.e. DPS, LTI, etc. • Monitoring of expenditure on Health Board funded Schemes against allocation • Maintenance and update of patient database/panels

6.4. Role of Department of Health and Children (DOH&C)

The role of the Department of Health & Children in relation to GMS involves the following:

GMS Division

- The development and implementation of policy in relation to the Schemes
- The design of new Schemes
- Negotiation of relevant aspects of Schemes with the IMO and IPU
- Monitoring of GMS(P)B activities and GMS Schemes
- Handling parliamentary questions

Finance Unit

- Negotiation of funding for GMS with Department of Finance, including initial and Supplementary Estimates
- Direct funding of GMS(P)B in respect of GMS Schemes
- Determination of Health Board Allocations, which include an allocation for Schemes funded by Health Boards, and funding of Boards
- Monitoring of expenditures incurred and cash position of GMS

6.5. Role of General Medical Services (Payment) Board ("GMS(P)B")

The remit of the GMS(P)B has been described in Section 4.1 above, and is essentially that of a payments agency.

The functions of the GMS(P)B have largely remained unaltered since its establishment, while the scale of its operations have increased by both the number of Schemes it processes and the level of payments. The allocation to GMS from DOH&C in 1990 was €201m, while in 2003 an estimated €1,047m will be required. This not only reflects the growth in expenditure in the last decade, but also serves to illustrate the extent to which the role of the GMS(P)B has grown and the levels of expenditure for which it is now responsible.

The GMS(P)B is accountable for its expenditure to the Public Accounts Committee (PAC), while DOH&C has policy oversight of its operations. The GMS(P)B has no executive authority over Health Boards or Primary Care Contractors. The contracts with primary care contractors are held by the Health Boards.

6.6. Role of Health Boards

Health Boards are the statutory bodies responsible for the delivery of healthcare services at regional level. The Health Boards receive funding each year from the DoH & C, within which there is an allocation for Health Board Schemes processed by the GMS(P)B (i.e. DPS, LTI, Ophthalmic Services Scheme, Dental Treatment Services Scheme, High Tech Drugs Scheme, among others).

The Boards are responsible for determining eligibility and registering individuals for the Schemes including Medical Card registration. The GMS(P)B processes and pays all claims from contractors in respect of the Health Board Schemes. It is reimbursed by the Health Boards for same.

6.6.1. Health Boards Executive (HeBE)

The Health Board Executive was established in 2001 to coordinate the activities of all the Health Boards.

A Medical Card Review Report was finalised in 2002 by HeBE with the objective of establishing a common interpretation and application of the legislation (Health Act 1970) and administration of the Scheme across all Health Boards in a way which reflects the realities of today's society, and which would remove anomalies in the system which have developed since initiation of the Scheme.

The Report produced many recommendations on the harmonising of structures and accessibility of the Scheme across Health Boards. The main recommendation which has an impact on the GMS (Payments) Board is the implementation of the Central Client Eligibility Index, which is considered in Section 6.9.

A Steering Group has been established to implement the recommendations of the Report.

6.7. Assessment of Roles and Responsibilities

We make a number of observations on the roles and responsibilities described above:

- No one body is responsible for overall executive management of the GMS System.
- The remit of the GMS(P)B is limited in that it is charged with a claims processing and payments function. The GMS(P)B has no role in the design or development of Schemes or in negotiations with Primary Care Contractors and is not empowered to direct the manner in which Health Boards maintain and update client registrations or handle issues associated with eligibility. Its role in validation of expenditures is also significantly restricted, given the nature of agreements with Primary Care Contractors.
- The funding of the GMS(P)B comes from two sources, the Department of Health & Children in respect of GMS Schemes and the Health Boards on the Health Board Schemes. The Health Boards Schemes are in turn funded by

the Department of Health & Children as part of the annual Letter of Determination for Boards. The funding mechanism creates a number of issues:

- It requires the GMS(P)B to deal with the ERHA 10 Boards and the Department on the reimbursement of the Schemes which brings with it a level of administration and management time.
- Health Boards, because of their own more general funding constraints, are wont to delay the discharge of their obligations to GMS(P)B for the Health Board Schemes, thus putting financial pressures on the GMS(P)B who must meet the contractual obligations to Primary Care Contractors.
- Health Boards have little incentive to manage their responsibilities in respect of the Health Board Schemes, as any savings effectively pass through to the GMS(P)B / Department of Health & Children. The Boards operate, in effect, to pass through funding received from the Department to the GMS(P)B.

We are of the view that the mechanism of funding the GMS(P)B partly through the Department and partly through the Health Boards creates inefficiencies in the operation of the GMS (including unnecessary financing constraints on the GMS(P)B) and dilutes effective governance and accountability in the GMS system. A single funding source is required.

- Historically, the GMS(P)B has not been centrally involved in the planning or design of Schemes, or in the negotiation of arrangements with Primary Care Contractors. We are aware that the Department has recognised this issue and has begun more recently to involve representatives of the GMS(P)B in such areas. This is to be welcomed. We are of the view that the lack of involvement of the GMS(P)B in scheme planning, design and implementation represents a significant deficit in the governance of the GMS in the past, particularly given the detailed knowledge the GMS(P)B possesses of the operation of schemes and of the impact that changes planned may have on schemes, both operationally and financially.

- The GMS(P)B's authority to enforce validation rules regarding the production of documentary evidence by Primary Care Contractors, particularly in relation to the identity and eligibility for services of patients for whom claims are submitted to the GMS(P)B for payment, is in practice limited. Contractors are reluctant to become involved in vetting patient eligibility for services. Such validation is, by any standard, an essential part of good governance as it seeks to establish the probity of claims made. However, resistance to the GMS(P)B fulfilling a meaningful role in validating claims has historically been present among the Primary Care Contractors. The GMS(P)B cannot discharge a meaningful validation role, central to accountability, unless Primary Care Contractors are obligated to cooperate with it in this area. Changes should be made to the relevant contractual arrangements to provide a legal basis for such requirements. (We envisage contracts will continue to be between the Health Boards and the

contractors given the wider range of primary care matters they address). The current system also leaves itself open to the incidence of fraudulent claims.

- The GMS(P)B is dependent on Health Boards to update and maintain the panels regarding clients registered for GMS and Community Drug Schemes. The processes and systems used at Health Board level vary from case to case. Furthermore, the dispersal of responsibilities across Health Boards to maintain records essential to the effective operation of the GMS(P)B has given rise to significant data integrity problems, which became particularly exposed evident at the time of the introduction of the extension of the Medical Card Scheme to all over 70s. The fact that registration of clients takes place at each Health Board also heightens the risk of the same client being registered in more than one Board. The GMS(P)B estimates that poor data gives rise to overpayments in respect of GP capitation of at least €12m per annum.

  The current structures and systems create an environment in which data integrity problems are almost certain to arise. Health Boards have not in the past carried out sufficient ongoing validation of client registrations / capitation panels monitoring or to ensure that such panels can be relied upon for payments purposes at GMS(P)B level. We recognise that a significant effort has been made over the past year by Health Boards to validate such databases. In our view, this demands that the necessary level of investment is made in a Central Client Eligibility System, to achieve a greater level of central control over registration and eligibility and to minimise data integrity issues. This issue is addressed more fully in Section 7 of this report.

7. OTHER ISSUES

7.1. Areas of Potential Exposure for GMS

There are a number of schemes run by the GMS(P)B that have a potential financial exposure greater than that included in the annual Estimates. These exposures exist within the Indicative Drug Target Scheme and the Practice and Nursing Subsidy Scheme, and arise because GP's claims to date are less than total potential claims based on scheme rules. The amount included in the Estimates is based on claiming patterns and trends to date, but is less than the potential underlying liability. We deal with this issue in more detail below.

7.2. Indicative Drug Target Scheme (IDTS)

In 1990/91 a major review of the GMS Scheme was undertaken, which covered as part of its remit, the increased cost of drugs under the GMS, which at the time was increasing at a rate of over 10% per annum. The increase in drug costs was attributed to an increase in the rate of prescribing and to the use of more expensive drugs, rather than an increase in the price of drugs per se.

In an effort to address this issue, the Indicative Drug Target Scheme (IDTS) was introduced in 1993 as an incentive to GPs to lower the cost of prescribing. The Scheme works on the basis that each GP is given a prescribing target for the year, taking into account the composition of individual patient panels. If the total drug cost incurred is below target set at the year-end, then the saving is kept in a notional fund that the GP can draw upon for any capital expenditure incurred in general practice development. The issue of the fund being notional is of some import; while the amount that can be potentially drawn down has been provided for in the Balance Sheet of the GMS(P)B, there is no actual cash fund to meet the liability included in the Balance Sheet.

Each year the accumulated savings are added to the notional fund and payments made to GPs under scheme reduce the fund. The net fund, included as a current liability in the GMS Balance Sheet, totalled €48.7m at 31 December 2002.

As can be seen from Table 4.1, the GMS(P)B provides in its Estimate each year for the amount that it is anticipated GPs will draw down from this notional fund. The 2003 Estimate provides for payments of around €18m (the remaining amounts included in the 2003 Estimate being provisions as detailed in Section 4.8.3.). Potentially, if GPs were to draw down this notional fund, the GMS(P)B would be exposed to a payment of up to c.€48m, for which it has, on an annual basis, only a partial allocation.

This exposure is an issue of major concern to GMS(P)B and proposals are being put forward to limit the annual payments from the fund at a certain level. We would support this approach.

In recent years the savings achieved on the Scheme have not matched expectations and it is felt that the Scheme as currently structured has reached its limit. With this in mind, a joint review has been undertaken by the IMO and the DOH&C to examine both the operation of the IDTS and to consider methods to renew its appeal. This review has not been completed as yet but is expected to be finalised in 2003.

7.3. Advance Drawdown of Monies from the IDTS

An Agreement was made in 2001 between the DOH&C and the IMO that in certain circumstances, funding under the IDTS could be in the form of a structured advance of monies. The reasoning behind this initiative was to assist Doctors, who were achieving savings under the IDTS, to embark upon significant practice developments in line with the recent strategies issued by the Department.

The Scheme works on the basis that a ten year loan is advanced based on past savings achieved. The amount of the loan shall not exceed a multiple of ten times the annualised average of the savings achieved in any three of the four most recent whole years preceding the year on which the application was made.

Where an application is approved then an agreement must be reached with the relevant Health Board, in a written legally enforceable form, on;

- The means by which the asset arising from the project will be secured to safeguard the States interest
- The mechanism by which the monies so advanced are guaranteed to be repaid over an agreed timeframe which may not exceed ten years, including the particular action that may be taken under such guarantees in the event of failure to meet the repayment schedule

We have a number of concerns on this aspect of the IDTS scheme;

- It is difficult to quantify the level of demand for the advanced loans, and in consequence the potential cash exposure as claims are made by GPs.
- In the event of default of the loan, it is not clear what the process for recouping the loan, or who would enforce it.
- It requires monitoring to ensure payment terms are adhered to.
- There may be pressures from GP's Unions where repayments are being pursued on loans in default.

While the principle envisaged in the Advance Drawdown of Monies under the IDTS is understandable (i.e. it could take years for individual GPs to build up the capital to undertake capital development in their practice), the current structures and modus operandi of this scheme are not robust, and create a potentially significant financial exposure. There is a strong case for discontinuing this scheme in its current form.

7.4. Practice Secretarial and Nursing Subsidy

This Scheme entitles GPs to a subsidy towards the payment of a salary for a secretary and/or nurse employed by the practice. The level of subsidy received is determined by the size of a GP's capitation panel and the relevant experience of each secretary and/or nurse. The key criteria are as follows:

- Full subsidy is available for panel size in excess of 1,200
- Pro Rata subsidy due for panel size between 100 and 1,100
- Relevant experience of practice secretary/nurse also taken into account

Payments under this Scheme are made each year to GPs following the receipt of completed application forms and relevant tax details for the secretary/nurse employed. If a GP does not claim within a given year, it is possible to claim retrospectively once documentation is submitted.

The GMS(P)B is aware, from information held and claiming patterns, that not all GPs entitled under the Scheme make a claim in a given year. As there is no limit in place for retrospective claims, GMS is open to significant exposure should all claims be submitted in any one year.

A cost of €38.7m was included in the 2003 Estimate for the Scheme. The potential annual cost of the secretarial/nursing subsidy were all claims to be submitted is calculated at €45m, leaving an exposure of c.€10m each year. No provision is made for this in the annual financial statements as the GMS(P)B regard this as a demand led scheme.

In addition expenditure under the Scheme has increased dramatically in recent years, increasing from under €15m in 1999 to c.€30m in 2002 and a projected €38.7m in 2003. The most significant increase occurred in 2001 when there was a growth of 53% in expenditure levels. This was as a result of the implementation of the Over 70's Agreement.

The Over 70's Agreement put a weighting of 3:1 for each patient over 70 on a Doctor's capitation panel. This has the effect of putting some Doctors, who would previously have been eligible for only a portion of the subsidy, based on panel size, over the threshold at which full subsidy entitlement arises. The result has, in effect, been a doubling of costs under this scheme.

Again, the manner in which the Scheme operates leaves the GMS(P)B open to significant claims, including those of a retrospective nature, in the area of Practice Secretarial and Nursing Subsidies. A mechanism is required to control within acceptable limits the annual cash outlay which may be claimed under the Scheme. Also, a time limit within which claims can be made is advisable.

7.5. Advance Payments to Pharmacists

In the past, when pharmacists first joined the GMS Scheme, an advance payment or loan was issued to cover the cost of the first month's stock orders. This was to compensate for funding the first month of activity within the Scheme, as wholesalers were paid one month in arrears by the GMS(P)B. The pharmacist has been entitled to keep the advance payment as an interest free loan until withdrawal from the Scheme. In addition to this, the advance payment could be increased or reduced each year depending on the level of their ingredient costs during the period. This normally resulted in an increase, as drug costs have tended to increase rather than reduce in the year. To receive any increase a signed declaration confirming the balance owed must be returned to GMS(P)B.

With the implementation of the electronic claims submission method, payment from GMS(P)B can now be received within fourteen working days. This negates the reasoning behind the advance payment as pharmacists now have the money to pay wholesalers. For this reason, the advance payments to Pharmacists Scheme was abolished in the 2002 Budget.

By year-end 2002, around 800 of the 1,249 pharmacists were submitting claims electronically.

7.6. Data

The GMS(P)B is a rich source of valuable data, and in fact operates one of the largest databases in Ireland. A significant amount of data is produced by the GMS(P)B. In the Value for Money Audit Of the Irish Health System produced by Deloitte & Touche, we commented that this information could be used far more widely in planning, monitoring and assessing the effectiveness of Government strategies

7.7. Data Integrity

We commented in Section 4 on some of the data integrity issues facing the GMS(P)B, particularly those relating to registrations of Medical Card holders at Health Board level.

The GMS(P)B maintains a central patient database, which is updated on the basis of batches of data received monthly from each of the Health Boards. There have for some time been concerns over the integrity of the data, but it was the Over 70's Agreement that brought this concern to the fore and highlighted the extent of duplicate registrations and so called "ghosts" on the lists. The GMS(P)B estimates that this has led to overpayments in Capitation Fees in the region of €12m per annum.

This lack of control over the updating and monitoring of lists stems from a lack of accountability on the statutory agencies and contractors.

- Health Boards determine eligibility and register patients for medical cards. However, as payment for the Schemes comes from another source, there is insufficient incentive to commit resources to monitoring the system at Health

Board level. Adequate monitoring has evidently not routinely been taking place.

- Section 11 of the GPs contract with the Health Board states that "the Medical Practitioner shall co-operate, where possible, in advising the Health Boards of known alterations" to patient lists. However in reality, while GPs are in the best position to be aware of changes to patient lists, this "co-operation" does not tend to take place.

7.8. Validation

The GMS(P)B validates claims and processes payments to contractors. In order to validate claims, it relies on the information on its patient database.

The GMS(P)B is subject to an annual audit by the C&AG and has been subject to adverse criticism by both the C&AG and the PAC on actions it should take to reduce exposure in relation to invalid/ineligible claims.

However, the accountability of the GMS(P)B is compromised by its reliance on external statutory agencies with regard to many of its policy decisions and operational functions. It is to some degree further compromised by the political difficulty in enforcing validation rules for patient identity/eligibility in respect of contractor claims for payment. This is further compounded by a reluctance on the part of the contractors to become engaged in vetting patient eligibility for services.

At present there is no responsibility on pharmacists to validate claims. The IPU has stated that pharmacists have no role in validating patient identity/eligibility for services, as this is viewed as a role for either the Health Boards or the GMS(P)B. This has resulted in a situation where GMS makes annual payments in excess of €50m to pharmacists for claims which could not be validated against the GMS patient file.

The GMS(P)B also wants to improve validation techniques on claim forms. This was attempted in early 2002 in relation to the claim forms submitted by Dentists under the DTSS, where two additional queries as to clinical necessity were incorporated into the form. This addition was strongly opposed by the Dentists Union (IDA) who tried but failed to obtain an injunction in the High Court. The case remains to be heard by the High Court. Efforts to appoint an Examining Dentist have also run into difficulty. This demonstrates the difficulty in implementing validation regimes with primary care contractors; it does not however obviate the necessity to have such validation mechanisms in place, mechanisms which should balance the requirement for contractors to have the right to make judgements on clinical necessity with some accountability for such judgements, particularly as public funds are being expended. It is not tenable for primary care contractors not to accept validation by the GMS(P)B of the expenditures their decisions generate.

The co-operation of the medical unions should be sought to implement, in the short term, the necessary reasonable validation arrangements.

7.9. Central Client Eligibility Index (CCEI)

To overcome the problems of data integrity and validation, the GMS(P)B has proposed setting up a Central Client Eligibility Index (CCEI), across all the Health services, which would use the PPS number as a Unique Patient Identifier (UPI). The functions and benefits of the index are outlined as follows;

- National index, holding a record on all users and potential users
- Provide a unique Central Client Eligibility Index Number for each client registered on the index – the PPSN should be this unique identifier
- Comprehensive client search and match facilities
- Available to Healthcare providers at the point of service
- Compatible with existing systems
- Capable of updating client databases held by service providers
- Mechanisms to maintain data integrity
- Maintain an audit trail of all amendments
- Secure mechanisms for storing and transferring data

The benefits to the GMS(P)B of implementation of the CCEI system are;

- To enable it to achieve its accountability objectives in relation to value for money on GMS expenditure,
- To improve data quality on GMS systems, particularly in relation to duplicate client registrations,
- To implement an on-line data collection facility for the CCEI, which will improve the speed and accuracy of GMS patient data collection from the Health Boards.

The database will be available to all Health Boards allowing access to confirm identity and historical information of applicants on registration. In addition contractors will have access to the CCEI, allowing them for the first time to be in a position to validate patient eligibility for the service being provided.

The problems in relation to patient registration and the need for the CCEI was identified in 1998. The GMS(P)B undertook to procure the core infrastructure and a Functional Specification was issued to the Health Boards in April 1999. In June 2000 Compaq was selected as the successful vendor, and commenced working on the project. A National Steering Group was established in late 2001, leading to a pilot in the NEHB in January 2002. However, this pilot was suspended in February 2002 due to problems with the integration of the new and existing systems. An external review was conducted by IBM, the purpose of which was to provide an opportunity for all involved to agree on the required implementation requirements and the impact it will have on the respective business processes. This review identified the following factors as key to the success of the project;

- Cooperation of the Health Boards at all levels
- Adequate Funding
- Strong and consistent Programme Management

In the HeBE Medical Card Review Report, conducted in early 2002, the need for the CCEI was once again highlighted in its recommendations, and forms part of the remit of the Project Implementation Team.

All Health Boards were to include the funding requirement for the CCEI in their 2001 Service Plan.

The implementation of a CCEI in the short term is in our view fundamental to improving accountability and control in the GMS system. Intuitively (and the evidence from the implementation of the new Over 70's Agreement substantiates this), we believe the investment required in such a system would provide an immediate payback in terms of savings on invalid payments, and would also enhance the integrity of data. Both these matters are central to good governance and accountability. The CCEI project must therefore be accorded the highest priority, and funding should be made available for it.

8. REVIEW OF FINANCIAL MODEL

In this Section we review both the financial modelling techniques and the forecasting methodologies used in producing the annual estimates of expenditure.

8.1. Financial Model

The GMS(P)B prepares detailed projections for each Scheme using a financial model on Microsoft Excel spreadsheets. The data used in the model derives from the GMS(P)B's Oracle database. For each Scheme, data is entered directly into a schemes specific spreadsheet. The total from each sheet feeds into a summary sheet showing the total expenditure of each scheme, providing the total annual Estimate.

The individual spreadsheets contain information dating back to 1993, and have become very large and unwieldy resulting in increased complexity over this period. During our review of the financial model for the purposes of considering historic and projected costs, we identified specific issues relating to the structure of the model set out below. It should be noted that we did not complete a financial model review which may have highlighted further structural issues.

- When modelling estimates it is important to run sensitivity analyses so as to better gauge the range of expenditure that would result based on differing trends. This was not done in the case of the GMS(P)B financial model and as currently structured the model does not lend itself to easily running sensitivity analyses.

- In all financial models, it is essential that the overall integrity of the model is satisfactory. In its simplest form this relates to the checking of tots/cross tots to ensure all elements are being included. Systematic checks and balances should be built into the models used.

- More robust testing of assumptions used should be undertaken to ensure consistent use of the assumptions in the model development.

- The model as presented is based on cash payments rather than accrued expenditure. For consistency with its Annual Financial Statements, the model should, in addition to cash payments, project accrued expenditures also.

Financial Modelling Best Practice

In recent years financial modelling has become a skill set on its own and there are certain techniques that would be of benefit to GMS(P)B and facilitate ease of use of the financial model. It is now accepted best practice that a financial model should be set up using the following structure;

- Input sheet(s)

  The input sheet contains all the hard coding i.e. manual input data, and the assumptions on which the projections are based.

- Worksheets

  The worksheets take the data from the input sheets and manipulate it as required based on the detailed assumptions, using formulae and calculations producing the totals for output.

- Output sheet(s)

  The output sheet summarises the workings from the worksheets in a form suitable for presentation.

A full data book setting out the detailed assumptions used in the financial model should also be produced.

The benefits of using this model structure are as follows;

- The inputs relevant to the model are easily identifiable.
- Assumptions are clearly defined and easily understood. In addition, they can be followed through the model to ensure the model reflects the appropriate calculations.
- Scenario and sensitivity testing can be easily performed on the model by properly structuring the relevant input sheets.
- The integrity of the model is stronger as the structure includes multiple checks throughout the model.
- If properly designed, the financial model is easier and more flexible to work with.

8.2. Forecasting Methodologies

It should be noted at the outset that GMS(P)B makes a wide range of different payments under the schemes it administers. This means that the generation of estimates is complex, as the factors that drive future expenditure may be very different. For example, the High Tech Drugs Scheme may be subject to a different range of clinical factors than the general GMS prescription scheme. As a result, the task of modelling future expenditure by GMS(P)B is bound to be complex, regardless of the methods used.

The aim of the spreadsheets is to project expenditure, based on trends to date. However, the individual schemes may be subject to significant changes, outside the trend, due to changes in the factors that influence them. For example, withdrawal of a low cost drug from the market or the introduction of generic substitutes for an expensive drug will both affect the costs of a scheme in which such drugs are a large expenditure item. These one-off changes cannot be modelled by any trend analysis. In consequence, there are limits to the potential accuracy of the models, regardless of the techniques used.

The main technique used by GMS(P)B to project its expenditure is as follows:

- Identify a value for the baseline for projections, e.g. most recent month for which there is actual expenditure or activity data, or average of most recent three months;
- Identify a growth rate, e.g. average monthly growth rate of that expenditure (or activity) item in the previous year/period;
- Apply the growth rate to the baseline to calculate the estimated expenditure (or activity) for each month to the end of the forecast time period;
- Where required, multiply estimated activity by estimated costs to produce estimated expenditure.

For some areas of expenditure, expenditure is directly projected. For others, populations or other activity measures are projected (e.g. Capitation Panels) and these are multiplied by costs or fees to produce forecast expenditure.

The effect of this modelling is to impose a trend line on the items modelled, of the form

$$Y_{t+1} = Y_t.(1+r)$$

Where Y = item modelled

t = time (months)

r = growth rate

Growth is therefore being predicted using not a simple linear trend but an exponential. Each month's growth is applied to the month before so the item modelled will grow in line with compound interest. For example, if r = 10% then the item modelled will grow by an absolute amount of ten per cent in month 1. In month two, the growth rate will be applied to the month 1 estimate of 110% of the baseline value so absolute growth in month two will be 11% of the baseline value, that is, ten percent of the new higher monthly value for month 1.

Growth at the average rate for the previous year is not an implausible basis for projecting growth, unless step changes are expected due to factors such as those noted above. In addition, as expenditure is being projected for a period of around 15-18 months in each estimate, the potential errors from the use of a simple modelling approach, rather than a complex modelling approach, are potentially smaller than if the approach was used for long range modelling.

However, although the approach used is plausible and potentially subject to limited errors if used over a short period of time, we have identified some weaknesses in the calculations provided to us.

8.2.1. Growth Rates

In the spreadsheets we have reviewed, the growth rate used is the arithmetic mean of the monthly growth rates in actual expenditure over a number of months for which actual data is available.

The arithmetic mean of the monthly growth rates does not always give an accurate measure of the growth rate of the expenditure or activity data item over the year. The greatest variation occurs when the rate of monthly growth fluctuates between positive and negative values. The arithmetic monthly average value of these growth rates over a year does not equate to the actual rate of growth, in compound terms, over the year.

8.2.2. Baseline for Extrapolation

In many of the spreadsheets examined, the baseline used to extrapolate subsequent months' data is the last month for which data exists. Where there is a steady trend in monthly growth, this is a plausible basis for extrapolation, but for activities or expenditure which fluctuate, month on month, use of a single monthly value may give misleading projections. This is of greatest significance if the month in question has a value which is significantly above or below the long term trend of that activity or expenditure item. This results in the future projection of values being already off-trend from the baseline, and is likely to continue to be off the trend for the extent of the projections.

It would be considered more appropriate to consistently model an average, over three or six months, for variables with substantial month on month variation, and use this as the baseline going forward.

8.2.3. Modelling of Capitation Panels

The models used by the GMS(P)B to project changes in the Capitation Panels are relatively unsophisticated. In the past, the model would have served its purpose, but the current Capitation Panel now contains population groups with differing trend attributes, so that it is difficult to accurately project forward unless the discrete elements are separately modelled. The panel is made up of Over 70s who were already entitled to a Medical Card pre 1 July 2001, the New Over 70s post 1 July 2001, and other Medical Card holders. It is important going forward that trends in each category are modelled separately. This is an example of an area where the GMS(P)B would benefit from a more sophisticated approach to modelling data.

8.2.4. Projecting Costs within the GMS Schemes

We would make a number of overall comments about projecting future expenditure by GMS, and the use of the datasets compiled by the GMS(P)B.

8. REVIEW OF FINANCIAL MODEL

At the outset, it should be noted that time series data modelling is a complex mathematical subject and, as GMS holds very large volumes of price and prescription data on each item prescribed, the scope for data analysis is very large. In our view, the most appropriate method for cost projection for each GMS scheme would be to fit a simple statistical trend line to the values for each month's expenditure over a period of two years from the timing of the projection. This would avoid projecting expenditure forward on the basis of a single month, when expenditure could be well above or well below the longer term trend. A period of two years is in itself somewhat arbitrary. A longer time series would provide more data for the estimation process but if underlying factors have changed, then the older data may be less useful.

In modelling trends, the first step is to fit a simple quadratic function in time (months) to the expenditure data. This has the merit of being more easily understood than complex statistical estimates. The statistical estimates produced, linking the increase in expenditure to time (measured in months from the starting point of the data series) and months squared, would be subject to statistical confidence intervals which could be used to provide lower and upper bounds to the projected level of expenditure for future estimates. It should be noted that estimated equations would also have statistics of their "goodness of fit" reported. These could be used to underpin decisions on more complex modelling techniques if these were required.

Ideally, for larger elements of GMS expenditure, these calculations would be carried out for each age group as the mix of age groups is likely to affect the level of expenditure for prescriptions or services provided. However, to a degree, the estimation of the growth of total expenditure over time incorporates the effect of demographic or other underlying changes, as long as these change gradually and consistently over time. (For example, a sudden change in prescribing policy leading to a very large increase in expenditure on one age group would not be accurately projected by the calculations.)

If greater sophistication is required, expenditure per member could be used to model expenditure in each scheme. This would separate out the effects of changing numbers of people from growth in items prescribed (or service provided) and growth in cost per item. Age structure could be included by adding variables showing the proportion of members falling in key age groups, e.g. children or those over 60 or over 70. However, if monthly data were used, it would be important to balance the number of explanatory variables with the available data as fitting limited data in models with a large number of explanatory variables causes a number of important statistical problems.

For some schemes, notably GMS, there are periodic and significant changes in underlying structural factors, such as eligibility. These could be addressed by allowing the key variables in the model to have different values before and after the structural change. (This is typically done by the introduction of dummy variables with a value of 0 before the change and 1 after the change.)

To support this analysis, other data analysis and intelligence gathering could be carried out. We recognise that the GMS(P)B does collect a significant amount of data and undertakes some intelligence gathering currently.

Data analysis could include a separate analysis on the small group of products which make up the top ten expenditure items in each scheme. The trends in expenditure or volume could be analysed as discussed above to identify how far the trend in the scheme as a whole was mirrored by the trend in the highest cost items. If it became clear that these items had a distinctly different rate of growth, then this might suggest that further modelling, e.g. using shorter time periods, might be appropriate to check on the consistency of growth rates in the recent past between the scheme as a whole and the high expenditure items.

Intelligence gathering could include analysis of the effects of at least two key factors:

- Price movements in the prices of medicines in countries used to derive the Irish price;
- Price movements due to the introduction of generic versions of medicines as these come off patent.

The first element would focus on a regular review of factors which might change the price of medicines in Europe, e.g. changes in reimbursement arrangements, specific action on medicines prices, which might have knock-on effects in Ireland. The second element would focus both on recent past generics introduced to the Irish market and also generics likely to enter the market in the near future. In our view, the cost impact of generics and related changes in the price of medicines would be best addressed by a regular review of the state of the medicines market, which would focus on the current price of recently introduced generics and those introduced some time ago, as well as the current and historic price of the original branded product. Medicines in the top ten for expenditure and volume would be the obvious initial target for this analysis. The analysis would provide a regular assessment of the potential impact of generics on GMS expenditure.

8.3. Conclusion

The GMS(P)B has for a number of years collected a significant amount of data for modelling purposes, particularly for cost estimation purposes. The data set is under-utilised, and during our work, we identified a number of areas where the financial modelling techniques used by the GMS(P)B can be improved. Given the scale of its expenditures, it is essential that the GMS(P)B adopt a robust approach to financial modelling, applying best practice in terms of model construction and refining its estimation methodologies.

9. CONCLUSIONS AND RECOMMENDATIONS

9.1. Conclusions

The key conclusions emanating from our review of the GMS are as follows:

I) Requirement for Robust Structures

GMS expenditures are of such significant scale that robust governance and accountability structures are essential.

II) Structural Weaknesses in the GMS

The current governance and accountability arrangements are inadequate in a number of important respects.

- No one party is responsible for the overall governance and management of the GMS system as an integrated national entity at present. As a result, accountability throughout this system is unclear and ineffective. This is a fundamental weakness in current structures.
- Roles and responsibilities for different aspects of the operation of the GMS are split between the Department of Health & Children, the Health Boards and the GMS(P)B itself. There is a lack of clarity over the allocation of responsibilities between the various bodies and the very existence of split responsibilities has led to a dilution in effective governance and accountability in the GMS.
- The funding of the GMS(P)B is split between schemes funded directly by the Department and those funded through Health Boards. This further hinders clear accountability within the structures.
- The GMS(P)B has a relatively narrow remit i.e. that of a processing and payments board. The evidence suggests that it performs this function efficiently. However, the GMS(P)B suffers from a perception that it is responsible for the GMS system as a whole, and for the cost escalations experienced in the various schemes, particularly over recent years. It cannot be so accountable, particularly as it has had no role in:
  - Design and planning of schemes
  - Negotiation of scheme arrangements with Primary Care Contractors.
- The GMS(P)B has not been in a position to develop an effective validation regime at contractor level to ensure the veracity of payments made.

III) Limitations in Financial Modelling of Schemes

There is scope to improve the cost prediction processes in place within the GMS(P)B, including the financial modelling on which estimates are based. This is accepted by the GMS(P)B, which has recently undertaken steps to improve its processes in this area.

IV) Book of Estimates

The amounts included in the Book of Estimates for the GMS should be based on the latest estimates then available from the GMS(P)B. In 2001 and 2002, the Book of Estimates did not reflect what the GMS(P)B predicted at the time of the Estimates to be the most likely outturn for the ensuing year in question. This has resulted in the initial allocation made in respect of GMS Schemes being significantly less than the level of expenditures it had projected, giving the GMS(P)B a budget deficit at the start of the year. The funding of this deficit has in practice being met through Supplementary Estimates towards the end of the year in question. From the perspective of the GMS system as a whole, and particularly from the perspective of the Board of the GMS(P)B, the existence of a significant budget deficit at the start of any year represents inadequate financial governance, even if it was anticipated that it would be met by a Supplementary Estimate.

V) Need for Fundamental Review of Schemes

The GMS has grown significantly since its inception, both in terms of the number of schemes/payment heads and the value and volume of transactions handled. The GMS has in essence evolved over that period to the type of entity it is today. We are of the view that there is now a requirement to carry out an Expenditure Review of the Schemes, examining their structure and modus operandi, to ensure they best meet the objectives of the Health Strategy, including the Primary Care strategy, and offer best Value for Money.

This review highlighted the following:

- The need to involve GPs and other service providers in budget holding to improve financial management and accountability.
- The requirement to assess whether the LTI should be merged into the GMS.
- The need to cap annual payments under the IDTS, at an agreed budget amount.
- The need to urgently amend or indeed cease the Advance Drawdown of Monies under the IDTS to limit financial exposures in this area.
- The need to evaluate the cost/benefits of the extension of the GMS to all over 70s, particularly in light of the significant current and prospective costs associated with this extension.

- The requirement to amend the basis of remunerating pharmacists under the DPS and LTI to a fee for service basis and not a mark up on ingredient costs.
- The requirement to establish protocols for drugs prescribing, and to monitor prescription data at GP level to ensure appropriate and effective prescribing patterns.
- The requirement for medical technology appraisal on an ongoing basis.

VI) Need for a Central Client Eligibility Index

There is an urgent need to implement a Central Client Eligibility Index within the GMS System to avoid the data integrity issues which came to light at the time of the extension of Medical Card Eligibility to all over 70s. It is likely that data integrity issues exist within other registration panels used for GMS payment purposes also. The lack of data integrity has resulted in payments being made by the GMS(P)B which are invalid, and also increases the risk of fraud. The GMS(P)B have concerns that the level of invalid payments may be significant. The required investment in the CCEI would, on this basis, have a very immediate payback.

9.2. Recommendations

I) Management as an Integrated National System

One body should be charged with overall governance and management of the GMS system, to include:

- Preparation of an annual Service Plan for the Schemes, and outlining plans in the areas of monitoring, reporting, systems development and validation. This plan should be used to inform the Book of Estimates.
- Input into Scheme design, development and implementation in liaison with the Department.
- Negotiation of contracts/contract revisions with Primary Care Contractors, in liaison with the Department.
- Responsibility for ongoing monitoring of the Schemes, including preparation of comprehensive management reports on Schemes, and making recommendations for improvements in the operation of Schemes.
- Responsibility for medium term financial planning/forecasting for the Schemes.
- Responsibility for developing and implementing a comprehensive validation regime over expenditures, including the implementation of effective validation procedures at contractor level.

- Responsibility for the implementation and maintenance of appropriate IT systems in the GMS, particularly the implementation of a Central Client Eligibility Index.

The above requirements essentially define an integrated, national executive management function for the GMS System, which is lacking at present.

Our report is being issued after the publication of the following reports;

(vi) The Audit of Structures and Functions in the Health System (Prospectus Report)

(vii) The report of the Commission on Financial Management and Control Systems in the Health Services (Brennan Report)

Both of the above reports advocate the establishment of a Health Services Executive (HSE) which will assume management responsibility for the planning, management and delivery of healthcare nationally. Furthermore, the Prospectus Report recommends the establishment of a National Shared Services Centre (NSSC) within the HSE.

Our recommendations on the future structure for the GMS are consistent with those included in the aforementioned reports. The essence of our recommendations is that one party should have overall responsibility for governance and management of the GMS, with clear lines of accountability. As such, we see the role of managing the GMS fitting within the HSE in due course. The activities of the GMS(P)B which currently relate to the calculation, making and verification of payments, and compilation of statistics can in many respects be characterised at present as being of a Shared Services nature. As such, these activities should be incorporated within a NSSC in due course.

The NSSC would provide the necessary management information to the GMS Division of the HSE to enable it manage and monitor the GMS System on an integrated, national basis.

An alternative structure to the above would be to broaden the remit of the GMS(P)B to include a national management responsibility for the Schemes and to report into the new HSE.

A change to the Statutory Instruments currently in force may be required to give effect to this recommendation.

The Brennan Report makes a number of recommendations to improve accountability for expenditures within GMS Schemes, and specifically identifies actions required to improve the operation of the GMS and DPS and in respect of Drugs Assessment. The recommendations of the Brennan Report are consistent with those set out in this Report.

II) Funding

Funding of the GMS (which in future should fit within the HSE) should be made directly by the Department of Health & Children to the GMS(P)B. No funding should be made through Health Boards.

III) Medical Cards

We have considered whether the GMS(P)B should be responsible for registration of clients and dealing with eligibility. We believe that over time this function could be carried out within the HSE. For this to be effective scheme eligibility criteria may need to be reviewed and refined to reduce the level of discretion required in the award of medical cards or eligibility for other Schemes. Procedures would also need to be implemented to deal with those cases where discretion is required on the issuance of Medical Cards, which will involve the agreement of criteria and procedures between the GMS(P)B and the Health Boards. For the moment, however, we believe that the registration of clients and dealing with eligibility is best handled at Health Board level. However, Boards need to improve their management of medical cards and we recommend that formal arrangements be established by HeBE (and in the future the HSE) to ensure closer joint management arrangements of the Schemes.

IV) Validation

The GMS(P)B should routinely carry out validation checks on its CCEI to minimise the risk of poor quality data, once this is in place.

V) Role of Department of Health & Children

The Department of Health & Children will continue to have responsibility for strategy and policy relating to the GMS, and for monitoring the policy effectiveness of schemes at a national level. Any new Schemes or amendments to existing Schemes should be subject to vigorous prior planning and negotiation with contractors prior to announcement and implementation. A formal review meeting between the Department of Health &Children and the GMS(P)B should take place on at least one occasion during the year to monitor progress against service plan, to identify areas where variances are arising and to agree on corrective actions and future funding implications.

VI) Accountability of Clinicians

GPs and other primary care contractors should be required to take on an appropriate form of budget holding responsibilities and be accountable for their actions relative to the budget.

VII) Management Reporting

Good management reporting is central to improvements in financial management in the GMS. The Monthly Management Reporting Template used by the GMS(P)B should be developed to include reporting against service plan, using a range of agreed performance indicators, and include an appropriate commentary from the CEO on same. An exercise is required to determine the appropriate performance indicators, however most will be clear from the analysis of cost drivers included in Sections 3 and 4 of this report.

9.3. Timescale for Implementing Recommendations

Table 9.1 outlines the timescale for implementing the conclusions and recommendations detailed in Sections 9.1 and 9.2.

Table 9.1
Timescale for Recommendations

		Short Term (1-2 years)	Long Term
I	**CCEI**		
	• Commence development of CCEI	✓	
	• Operate fully implemented CCEI		✓
	• Transfer responsibility for monitoring patient databases to National Executive		✓
II	**Alignment with Proposed New Health Structures**		
	• Confirm where GMS fits within the HSE	✓	
	• HeBE to assume National role for GMS in the interim to promote improved conjoint management approach	✓	
	• Formally fit GMS System with new Health Structures		✓
III	**Single Funding Source for GMS(P)B**	✓	
IV	**Validation**		
	• Define validation regime	✓	
	• Obtain co-operation of medical unions	✓	
	• Amend contracts where necessary	✓	
V	**Develop Budget Systems with Contractors**		
	• Assessment of scope for improving IDTS	✓	
	• Develop more refined budget holding arrangements with GPs		✓
	• Develop protocols for drug prescribing	✓	
VI	**Resources**		
	• Put in place additional resources in GMS to improve financial planning; validation etc	✓	
VII	**Estimates Process**		
	• Ensure Book of Estimates is based on GMS projections incorporating latest trends	✓	