

IMJ 1999;92(4):337-339.

**The Irish National Centre of Pharmacoeconomics:
Its Rationale and Role**

Prepared by: **Barry M, MB, FRCPI, PhD**
 Heerey A, BSc
 McCulloch D, MSc, PhD
 Ryan M, MPSI
 Merry C, MB, PhD
 Hughes C, MSc, LPSI

**National Centre of Pharmacoeconomics in Ireland,
St. James's Hospital,
James's Street,
Dublin 8**

Introduction

The Irish National Centre of Pharmacoeconomics was established in 1998 with financial support from the Department of Health and Children. Its aim is to promote expertise in Ireland for the advancement of the discipline of pharmacoeconomics through practice, research, and education (Figure 1). The Centre's main activity will be the economic evaluation of pharmaceutical products, and the development of cost-effective prescribing. The latter will focus on new and existing drugs funded by the General Medical Services (GMS) payments board, along with routine prescribing by general practitioners. The Centre will also be involved in research into high cost areas (for example, lipid-lowering drugs) together with a contribution to the undergraduate pharmacology curriculum.

Rationale

The increasing age of developed countries' populations, the rapid expansion of the absolute number of drug therapies, and the increasing numbers of drugs taken in combination, have increased health budgets world-wide; health expenditure is now approximately 8% of the world's total gross national product [Table 1] ^[1, 2]. This growth has brought about the application of economics to health budgets by governments (especially in relation to expenditure on drugs) in an effort to balance spending with taxation income.

Economics can be seen as a mechanistic approach to sensitive issues which may be difficult to explain to those outside the medical profession. However, clarification of the resource implications of different choices (between treatments, drugs, or surgical procedures) makes better decision making possible. As resources are limited, timely and relevant information about costs and outcomes helps to move the health system towards the maximum health impact of a given budget. Economics is not a substitute for sound clinical judgement but it can pose serious questions about priorities.

The size of the prioritisation problem is demonstrated by the volume of spending on drugs. In 1998, total government estimated expenditure was £12.871 billion, of which the Department of Health and Children budget was estimated to be £2.823 billion (22% of the total [Table 2]) ^[3]. This is an increase of 10% compared to estimated expenditure in 1997 and is the largest percentage of government funds allocated to any public service. Of the other 43 separate supply services, only the Department for Social Security and Family Affairs approaches this size, at £2.793 billion.

In 1997, the GMS payments board spent approximately £388 million which was approximately 15% of the total estimated expenditure for the Department of Health and Children for that year. The board is responsible for drug payments to the general practitioners, pharmacists and dentists taking part in government funded health service schemes. There are 11 schemes controlled by the GMS payments board, but the main expenditure is the General Medical Services scheme itself, which used approximately 73% of the total GMS income in 1997 ^[4,5].

35% of the population are eligible for the GMS scheme, which offers a medical card to provide free general practitioner services and drugs and appliances supplied under the scheme. Those eligible are "persons who are unable without undue hardship to arrange general practitioner medical and surgical services for themselves and their dependants" ^[6]. In 1997, more than 83% of eligible GMS persons availed of the scheme and in excess

of 23.5 million prescription items were paid for by the board; this was an increase of almost 1.5 million since the previous year ^[4]. However, it is not widely realised that substantial expenditures by the GMS are to the general public, not to means-tested patients; announcing the recent [March 1999] creation of the Drug Payments scheme [from the Drugs Cost Subsidisation Scheme and Drug Refund Scheme], the Minister said: “The new Drugs Payments Scheme is for everyone.... In effect, where expenditure by a family exceeds £42 per month, the balance will be met by the State.” [Department press release, 1/12/98]

In general, expenditure on medicines in Ireland under the Community Schemes [GMS, Drugs Payment Scheme, Long Term Illness scheme (LTI), etc.] has been increasing significantly. Using data from the GMS, LTI and the High Tech Drug scheme (latter introduced in Nov. 1996), which are among the most costly community schemes governed by the GMS payments board, it can be shown that the ingredient cost of medications has increased from £166 million in 1993 to £258 million in 1997 (Table 3). Combined with this increasing expenditure on drugs, there is also a perception that drug budgets in general may not currently be used to the best advantage, and that it may be possible for savings to be made without detriment to patients.

The rationale for the National Centre of Pharmacoeconomics is the achievement of the maximum health impact of drugs, per unit of expenditure, through the evaluation, in cost-effectiveness terms, of existing products, and of products which pharmaceutical companies bring forward for adoption by the GMS Payments Board ^[7,8].

Because of the economic pressures referred to above, the demand for pharmacoeconomic data is increasing world-wide. In the next three years, there is an expectation that the number of pharmacoeconomic dossiers to reimbursement authorities will globally increase by 87%, and the number of submissions to pricing authorities by 74%. To help accommodate this, there are pharmacoeconomic centres or the equivalent in many countries (including Canada, the US, France, the UK and Australia) and pharmacoeconomic departments are growing rapidly in pharmaceutical companies. In 1990, the average company FTE (Full Time Equivalent) staff in a pharmacoeconomic department was 5 but this had risen to 24 in 1998. Figures for 1998 also show that the average annual budget of such a department (in a pharmaceutical company) was greater than one million US dollars for approximately 50% of cases, and greater than six million dollars in approximately 30% ^[9].

The Role of the Centre

There are four main aspects, liaison with the National Medicines Information Centre, research, the pharmaceutical industry, and educational activities.

Liaison with the National Medicines Information Centre (NMIC)

The NMIC is responsible for providing independent, unbiased information to all healthcare professionals in Ireland; the main users are doctors and pharmacists who enquire for information on new products, choice of therapy, etc. Since cost-effective prescribing uses both evidence-based medicine and pharmacoeconomics, the Centre of Pharmacoeconomics works closely with the NMIC; both centres operate from the same location in St. James’s Hospital, and are funded by the Department of Health and Children.

The NMIC also provides information in the form of therapeutic bulletins. These publications, which are distributed to all doctors and pharmacists, highlight new drug developments and, amongst other things, give details on changes in the therapeutic management of a disease condition. More recent bulletins have also incorporated a brief section on the pharmacoeconomics of a given drug or therapeutic area; this focus will continue in the future.

Research

Projects which are currently in progress include:

- a) The cost-effectiveness of combination antiretroviral therapy for HIV
- b) The evaluation of treatments for Alzheimer's Disease
- c) The cost-effectiveness of treatments for hyperlipidemia
- d) The modelling of prescribing for Chronic Heart Failure
- e) The review of prescription patterns for Peptic Ulcer disease
- f) The use of different measures of health outcome, as bases for resource allocation.
- g) The average costing of an MI in the Irish setting.

The centre also aims to focus on other high cost areas such as depression and asthma.

The Pharmaceutical Industry

It is not widely known that Ireland is a substantial producer of pharmaceutical products, exporting the largest quantity, per head of population, of any country in the European Union. Ireland also has the third largest pharmaceutical trade surplus, of all the EU countries ^[10]. The long-term success of this important sector depends on the rigorous application of scientific methods to the economics, as well as to the pharmaceutical development, of drug entities.

The Centre evaluates drugs in terms of the evidence for their cost-effectiveness, when required to do so by the Department of Health and Children. Often, the case made for a drug, and its application to the Irish context, may be capable of more than one interpretation and the evidence from other countries will have to be interpreted for the Irish context. To facilitate such evaluations, the Centre has developed Pharmacoeconomic Guidelines, which are currently under discussion between the Centre, the Department of Health and Children, and the Irish Pharmaceutical and Healthcare Association. The aim of these guidelines is to ensure enough consistency in pharmacoeconomic submissions to allow the results from different studies to be compared in a meaningful way.

Educational Activities

The centre's educational activities include a contribution to the undergraduate clinical pharmacology curriculum in Trinity College, Dublin, and to post-graduate training in pharmacology. It will also be acting as a tutorial centre for the Health Economics correspondence course organised by the Health Economics Research unit at Aberdeen University, commencing in September of this year.

Conclusion

Economics is the language of scarcity and choice. It gives an awareness of the resource dimension of the difficult decisions which are increasingly necessary in a health service faced with unlimited demand for its services, but possessed of limited resources to meet these demands. The National Centre of Pharmacoeconomics is committed to the strategic development of cost-effective prescribing, and we look forward to co-operating with

colleagues in medicine, government, and the pharmaceutical industry, to maximise the impact on health of the drug budget over the long term.

Figure 1:

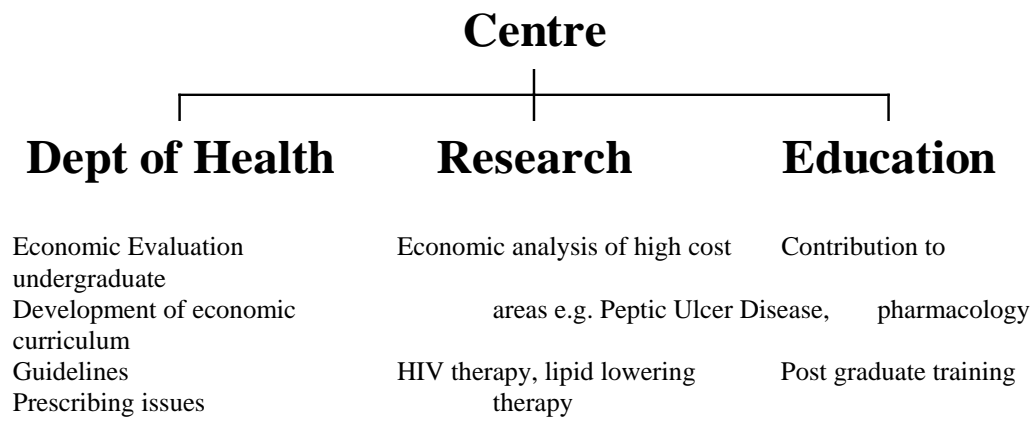


Table 1

% Share of Gross Domestic Product in Health Care in Selected European Countries, in selected years.

Country	1960	1975	1989	1995
Ireland	4.0	7.8	6.5	6.1
Germany*	4.7	7.8	8.2	10.3
Belgium	3.4	5.8	7.2	8.0
Denmark	3.6	6.5	6.3	6.4
France	4.2	6.8	8.7	10.0
Italy	3.9	5.8	7.6	7.9
Netherlands	3.9	7.7	8.3	8.8
Spain	2.3	5.1	6.3	7.6
Sweden	4.7	8.0	8.8	7.1
United Kingdom	3.9	5.5	5.8	6.9
Average	3.8	6.6	7.5	7.9

* These figure are for West Germany pre 1989 and united Germany in 1995

Table 2:

Republic of Ireland Supply of Government Services for 1998

Service	Estimated Cost (£IR billions)	Percentage
Environment and Local Government	1.015	8 %
Security	0.774	6%
Education	2.404	19 %
Social, Community and Family Affairs	2.794	22 %
Health and Children	2.823	22 %
Others	3.061	23 %

Table 3:

Expenditure on medicines in Ireland 1993 - 1997
*(includes expenditure of medicines from the GMS,
DCSS, LTI and High Tech Drug schemes)*

Year	Cost £IR Millions
1993	166
1994	179
1995	198
1996	215
1997	258

References:

1. Folland S, Goodman AC, Stano M. *The Economics of Health and Health Care*. New York: Macmillan Publishing Company, 1993:6.
2. European Parliament. *Health Care Systems in the EU - a comparative study*. 1998; 31-134.
3. Department of Finances' Revised Estimate for Public Services 1998;vii-ix.
4. GMS payment board's Financial and Statistical Analysis of claims and payments. 1997; 6.
5. GMS payments board: Report for the year ended 31st Dec 1997; 7.
6. GMS payment board's Financial and Statistical Analysis of claims and payments. 1997; 3.
7. Canadian Co-ordinating Office for Health Technology Assessment. *Guidelines for Economic Evaluation of Pharmaceuticals: Canada 2nd ed* Ottawa: CCOHTA 1997
8. Commonwealth Department of Human Services and Health (Australia). *Guidelines for the Pharmaceutical Industry on Preparation of Submissions to the Pharmaceutical Benefits Advisory Committee CDHSH 1995*
9. Tufts University CSDD Survey 1998.
10. European Federation of Pharmaceutical Industries and Associations: *The Pharmaceutical Industry in Figures EFPIA*. 1998: 25, 42.