



Advances in Health Economics

Editors **Anthony Scott • Alan Maynard • Robert Elliott**

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HERU
HEALTH ECONOMICS RESEARCH UNIT

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Dedication

This book is dedicated to Roy Weir, who together with Elizabeth Russell and Gavin Mooney founded HERU. It was, however, Roy's vision that was the true inspiration for the establishment of HERU.

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Preface

In April 1977, the Health Economics Research Unit (HERU) was established in Aberdeen. It was the first research unit in the UK and Europe with a focus solely on health economics. The 'core' funding of HERU was from the Chief Scientist Office of the Scottish Home and Health Department (now the Scottish Executive Department of Health), and this remains the main source of funding for HERU more than 25 years after its inception.

In the early 1970s, health economists at the University of York had begun to establish a critical mass for the emerging sub-discipline of health economics through the establishment of the Health Economists' Study Group. Another key development in health economics occurred in 1974, when Gavin Mooney moved from the Department of Health and Social Security to the Department of Community Medicine at the University of Aberdeen for Scotland's first formal health economics project. The collaboration between Gavin Mooney, Roy Weir and Elizabeth Russell led to the establishment of HERU in 1977.

To mark the 25th anniversary of HERU, three events were held in May 2002. The first was a major policy conference held in Aberdeen, '*What can health economics do for the NHS in Scotland?*' The Chief Scientist Office and the Scottish Economic Policy Network ('Scoecon') sponsored this conference, which celebrated the contribution of HERU to policy and decision-making in the NHS. Presentations by HERU staff on the contribution of health economics research in the areas of benefit assessment, labour markets and health technology assessment formed the main part of the day, which concluded with a panel discussion on future priorities for health economics research in Scotland. The second event was a dinner, hosted by HERU's new Director Bob Elliott, where all current and ex-HERU staff (plus a few close associates) reflected on HERU's achievements and toasted the future. The third event had an academic focus and was a workshop to discuss the first drafts of chapters for this book. This was 'HESG' style and so involved a number of discussants selected from ex-HERU staff. The workshop was a successful conclusion to the 25th anniversary celebrations.

The purpose of this book is to reflect the unique and distinct contribution of HERU to the practice of health economics. Chapters have been selected to reflect a range of topics and methodologies in which HERU has played, and continues to play, a leading role. Each chapter focuses on the current issues and debates, and is forward-looking in terms of the research agenda and policy issues that are discussed.

The chapters are organized into four themes: methodologies (Chapters 1–4); performance and behaviour (Chapters 5–7); specific populations (Chapters 8–10); and equity in health care (Chapters 11 and 12). These themes trace HERU's contribution from a number of perspectives.

Methodologies. The development of methodologies is an important part of the development of any academic discipline and research in this area has underpinned much of HERU's work in applied health economics. HERU's contribution to methodology has been primarily in the area of valuation of the benefits of health care, arising from the need to be able to determine patients' and the community's preferences for health care. These issues are also relevant when considering equity in health care, a continuing interest of Gavin Mooney that is reflected in the penultimate chapter of this book.

Obtaining information on the value that consumers place on health care services is a key aspect of the demand for health care. It is necessary because of the severe market failures in health care which mean that prices for health care services and inputs, if they exist at all, are unlikely to reflect the value placed on these services by consumers. The development of non-market methods of valuation, as a mechanism for eliciting the preferences of consumers of health care, is therefore essential if the theoretical notion of 'consumer sovereignty' is ever to be realized.

A focus of HERU's research has been on methods of non-market valuation, which recognize that 'health' is not the only outcome from health care services that is valued by consumers. The development of the method of 'willingness to pay' (WTP) and 'discrete choice experiments' (DCEs) in health care, including their key methodological issues, forms the content of the first two chapters by Donaldson and Shackley, and Ryan and Gerard respectively. The key messages for both of these techniques are that considerable progress has been made with the development of these methods, and that further methodological work is required before these techniques can be used in the policy arena. The next decade will see both techniques more firmly established amongst health economists and policy-makers.

The valuation of future health events has also been a key methodological area in HERU's research. Such research aids understanding of individuals' health-affecting behaviour, as well as providing guidance on the use of appropriate methods of discounting in economic evaluation. In Chapter 3, van

der Pol and Cairns compare a number of methods used to elicit preferences over future health events. They highlight issues with the validity of the stated preference methods being used, and conclude that comparisons with revealed preference data should be the focus of future research.

The valuation of benefits from health care needs to be incorporated into the framework of economic evaluation if they are to aid decision-making in health care. Getting the results of economic evaluations used by decision-makers is the topic of Chapter 4, by Gray and Vale. They report on the methodological issues involved to make the results of economic evaluations more useful and accessible to decision-makers. This is an important area if the research health economists undertake is to bear any fruit. The relationship between academic research, policy and decision-making is something that HERU continues to address, and much of its funding over the last 25 years has come from these same policy and decision-makers.

Performance and behaviour. Establishing what people want from health care given the resources available is a pre-condition for policies designed to change the behaviour of health care providers. Market failure in health care means that providers are not sensitive to the preferences of consumers. Research into the performance and behaviour of doctors, nurses and health care organizations therefore provides evidence about those regulations, contracts, payment systems and other factors that can be used to align providers' behaviour with consumers' welfare.

HERU's research in this area over the years has covered a number of areas, including agency in health care, supplier-induced demand, incentives for GPs, hospital objectives, nursing labour markets and the performance of health care systems. Three chapters in this book reflect this theme of work. Chapter 5 (Scott and Farrar) examines recent developments in the economics of incentives and agency, and how they can be applied in the UK NHS. It documents the reasons why explicit incentive schemes may not work in the complex reality of the NHS, and examines other ways in which behaviour can be changed, such as subjective performance evaluation, incentives in teams, bureaucratic rules, internal and external labour markets, and intrinsic motivation and social context. None of these have yet been examined in the context of the UK NHS.

As well as incentives to enhance performance and change behaviour of existing staff and health care providers, a necessary pre-condition is that there exist 'adequate' numbers of health care professionals. Elliott, Skåtun and Antonazzo in Chapter 6 examine behaviour in the labour market for nurses. Issues with respect to the supply and demand for nurses, including a review of empirical work, are presented and discussed. There are only a handful of studies in the UK examining these issues, even though this is a crucial area of health policy.

A focus on the performance of NHS organizations, in addition to the performance of individuals within them, has been the objective of ongoing reform of the NHS. The economics of hospital reimbursement is reviewed in Chapter 7, by McGuire and Hughes. The pursuit of efficiency in hospital production is considered, through the use of pricing rules, the consideration of the hospital as a firm, the determinants of hospital costs and scale, and incentives in reimbursement. The effects of reimbursement and regulation on quality are the main issues for future research.

Specific populations. HERU continues to conduct research into a wide variety of applied topic areas in health care that utilize a number of different methodological approaches. These topics may be defined in terms of a specific sector of the NHS, type of provider, type of clinical problem, or a specific population of patients. The three chapters here reflect some of the past, ongoing and proposed future applied areas of work in HERU.

Dental care is an area where there has been little work by health economists. Parkin and Devlin in Chapter 8 address the measurement of efficiency in dental care. This draws on a strong tradition of research in this area at HERU. Parkin and Devlin examine the nature of the commodity dental care, current issues in the economic evaluation of dental services, and the measurement of the performance of dental health care systems at a more aggregate level. The authors highlight the role of production function approaches to examine the determinants of oral health, and also note the scope for further research on the development of preference-based outcome measures.

The role of ageing and its effect on health expenditures has been a more recent focus of interest in HERU. McNamee and Stearns note the concerns raised by an ageing population on health care expenditures in Chapter 9. Their review of work in this area includes an examination of the relationship between age and disability, and age and expenditures. The jury is still out on whether greater numbers of older people in the future will be healthier than current cohorts. The relationship between ageing and health expenditures is complex and needs to account for the effect on social care expenditures. Further evidence, particularly from longitudinal panel surveys, is required given continuing policy changes in the area of long-term care.

A more longstanding area of work in HERU has been on primary care. Chapter 10, by Maynard and Scott, examines some of the key economic issues in UK primary care and general practice. Much of the recent reform of the NHS has given GPs and primary care an enhanced role in the allocation of resources. The main developments in the workforce, issues around nurse-doctor substitution, contracts, access and demand, and user charges are reviewed. The lack of routine data and a consequent evidence base for primary care reform has been a major barrier to the conduct of research in this area,

which should focus on research in labour markets, skill mix and the role of the primary care team.

Equity and health. The final two chapters of the book are devoted to issues that are usually ignored by neo-classical economists who focus on efficiency of health care systems. Distributional issues and the role of determinants of health other than health care have broadened the scope of health economics.

The continuing work on equity by Gavin Mooney has led to new conceptual ideas about equity in health care, which are breaking free of neo-classical welfarism and highlighting the importance of community values that may be different from, and valued independently of, the aggregation of individuals' values. Mooney and Russell in Chapter 11 argue that these issues may provide solutions to the problem of allocating health care resources equitably across different groups, particularly with the notion of a 'constitution' for health services.

A focus of health economics research on 'health' rather than 'health care' is the key message from the final chapter by Ludbrook and Cohen. This reflects continuing policy developments, as well as the recognition that investments in interventions that influence lifestyle and life circumstances may have a greater marginal impact on health than investments in health care. Developing theory and gathering evidence on the demand for health, and the impact of these non-health care determinants of health, is therefore an important avenue of future research.

An inevitable outcome of the research presented in this volume is the identification of a complex and demanding programme of future research. The need for further research is as strong as ever, as the demand for health economics skills has increased in line with their supply (the direction of causality is perhaps an interesting area of research). Major changes in the structure and organization of health services, and advances in technology, will continue to shape the research agenda of health economics. Nevertheless, many research questions remain as relevant today as they were 25 years ago. What has changed is the development of health economics methods to address such questions more effectively, and an increased demand from decision-makers for the results of health economic studies to be used to answer key policy questions.

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