Welcome

Welcome to Issue 4 of HERU News. This edition focuses on the work of the programme of research into Behaviour, Performance and Organisation of Care (BPOC), one of HERU’s four programmes of research.

Examining the determinants of the decisions made by health professionals is key when trying to improve efficiency and equity in health care. You will be aware of the many policy initiatives going on that are attempting to change the behaviour of health professionals, including Performance Assessment Frameworks, recruitment and retention initiatives, NICE guidance, clinical guidelines, service redesign, integrated care, and changes to GPs and Consultants’ contracts. Yet it always surprises me how little empirical evidence there is about whether these initiatives actually work. Are we wasting resources that could have more beneficial uses? Although there is a growing body of evidence on the effectiveness and cost-effectiveness of clinical interventions, the evidence base for interventions to change behaviour is scarce but growing.

There are two main areas of the research programme. The first is Labour Market Decisions. Pressures for increased capacity in the NHS mean that more staff are needed and so it is important to conduct research into the labour supply decisions of NHS staff. What is the effect of increasing wages and the quality of jobs on recruitment and retention? The second area of research is Performance and Incentives. How can the performance of hospitals and other NHS organisations be improved? What is the effect of the Performance Assessment Framework? How do remuneration systems influence behaviour?

These are some of the questions that the research in the programme is addressing. More detail on some of these projects is provided in this newsletter. If you require more information on these projects, or more generally about BPOC, please email me at a.scott@abdn.ac.uk or visit our website www.abdn.ac.uk/heru/hpoc.hti

BPOC TEAM

The BPOC team is directed by Dr. Tony Scott and currently includes three Research Fellows, Shelley Farrar, Divine Ikenwilo and Diane Skatun, as well as a PhD student, Patricia Fernandes.

New Publication: Future research in health economics in Scotland in light of the Wanless report.

Last year saw the publication of the Wanless report justifying large increases in expenditure on the NHS. A number of key assumptions were used in the analysis that were used to support the notion that increasing health expenditure will have a positive impact on the health of the population of Scotland. These assumptions help define a challenging research agenda for health economists and others. This report, funded by the Scottish Economic Policy Network (scotecon.net), examines the Wanless assumptions in a Scottish context and translates these into a number of research questions.

This report is available to download from scotecon’s website: www.scotecon.net/publications/HERUsummary.pdf
Aims and methods.
The project identified the main labour market patterns and trends for medical, nursing and other staff employed by NHS Scotland. The report examined trends in the size, age and gender composition, part-time working, turnover, vacancies and sources of supply, at both national and health board level. The main data used was provided by ISD Scotland, and was supplemented by data from the Quarterly Labour Force Survey and New Earnings Survey Panel Dataset. The study was commissioned by the Scottish Executive Health Department in 2001.

NHS Scotland and the general labour market.
There was evidence that NHS Scotland remained competitive in the labour markets for some of its core skills during the 1990s. The relative attractiveness of NHS Scotland employment for both doctors and nurses is a critical area for further research.

Composition of the workforce.
The composition of the NHS Scotland workforce changed during the 1990s. There were fewer nurses but more doctors and Professions Allied to Medicine (PAMs). Among hospital doctors a greater proportion were consultants and among nurses a slightly higher proportion were qualified. The hospital workforce thus became more highly qualified during the decade. NHS Scotland employed more managers and fewer ancillary staff in 2000 than in 1990.

Key findings for nurses.
Unemployment among nurses in Scotland was very low, at less than 1 per cent, in 2000. In the same year almost 89,000 people of working age in Scotland held a nursing qualification. Around 49,000 of these were working in NHS Scotland, whilst 15,000 were working in non-nursing jobs that did not appear to require caring skills or nurse training. If more nurses are required this group could be targeted and attracted back into NHS Scotland work. The nursing workforce is ageing, with unqualified nurses more likely to retire resulting in a more highly qualified workforce overall.

Key findings for doctors.
By 2001 women accounted for almost 60 per cent of medical school acceptances. The rise in the share of women hospital doctors and GPs might have been expected to result in a demand for more ‘flexible’ working and part-time jobs. However only in General Practice had this been realised with an increase in part-time working. Part-time working among women hospital doctors fell for most of the 1990s. The proportion of hospital doctors who qualified overseas rose from 12 per cent in 1990 to 17 per cent in 2000.

Determinants of Consultants’ Job Satisfaction in the NHS.
Divine Ikenwilo & Tony Scott, HERU Fiona French & Gillian Needham, Department of Postgraduate Medicine, University of Aberdeen.

The problem
Following planned increases in health care expenditure over the next five years, from £65.4 billion to £106 billion, it is expected that more consultants (and other health care personnel) will be trained and recruited by the NHS. In a bid to attract more doctors into this profession and to improve productivity, a new contract for consultants is expected to be implemented from April 1st 2003.

How workers perceive their work has been shown to affect economic outcomes such as productivity, worker behaviour, turnover and overall employment costs. It is also reported to be one of the three most important predictors of overall well-being, apart from marriage and family satisfaction. It is correlated with patient satisfaction and has an influence on patients’ health outcomes. A particular issue is the effect of pay versus non-pay factors on job satisfaction, and a number of factors that relate to changes in consultants’ contract of employment with the NHS.

The Survey
Factors influencing job satisfaction were examined in a broader survey of all hospital consultants in Scotland. The final data collected were representative of consultants in terms of gender, ethnicity, age, location and specialty, giving a response rate of 58% (the sample size is 1793). The results were analysed using ordered probit regression models.

The results
Our results show that females report higher overall satisfaction than males. They are also more satisfied than males with the domain on hours of NHS work. Consultants are generally satisfied with their jobs, with the various domains of job satisfaction influencing this heavily.
Working hours are negatively associated with job satisfaction (see figure 1 below). The results show significant U-shaped effects of age on job satisfaction, as well as effects of non-NHS work, health, family circumstances and gender differences. The results suggest that reduced hours of work should be the focus of policies to improve consultants’ job satisfaction.

**Evaluation of Cardiac Managed Clinical Network**

Tony Scott, HERU; Sally Wyke, Scottish School of Primary Care; Frank Sullivan, Tayside Centre for General Practice, University of Dundee; Rex Taylor, Crichton Campus, University of Glasgow; Chris Baker, Dumfries and Galloway Primary Care Trust

Managed clinical networks (MCN) were proposed in the late 1990s as a means of achieving high quality care and integrated service delivery in NHS Scotland. The aim of this study is to evaluate the processes and outcomes, and mechanisms through which success is achieved, in a MCN for cardiac services in Dumfries and Galloway. The nature of integration will be examined as the MCN is developed, through a series of interviews with key stakeholders and examination of routine clinical and resource use data on patients who have had a heart attack before and after the MCN was established. Recommendations will be made on the future development of MCNs in Scotland.

**Effects of remoteness and rurality on hospital costs**

Patricia Fernandes and Tony Scott, HERU & Euan Phimister, Department of Economics

The provision of health care services in remote and rural areas is an increasingly important area of policy. The main concern is that populations in remote and rural areas should have similar access to health care services as those in more urban areas, where the need for health care in these populations is the same.

This research will use both qualitative and quantitative methods to examine why the costs of hospitals in remote and rural areas are higher than the costs of hospitals in urban areas. A review of the theoretical and empirical health economics literature on the determinants of hospital costs will be made, followed by interviews in urban and rural hospitals so as to further develop some hypotheses about these determinants. Finally, existing secondary data, based on that used in the Arbuthnott Review of Resource Allocation, will be analysed in order to isolate the effect of remoteness and rurality on hospital costs, while controlling for 'need' and other factors influencing such costs.

**Ongoing Projects**

Examining alternatives for the remuneration of community pharmacy

Tony Scott, HERU & Christine Bond, Department of General Practice and Primary Care, University of Aberdeen

The remuneration of community pharmacy has changed little since 1948, and has not kept up with the many other reforms to service delivery in the NHS. The recently published policy document, *The Right Medicine* describes new roles for community pharmacy and indicates that there will be a new contract to support these. The aim of this project is to examine the document and identify the key aspects which will affect community pharmacy. Informed by the literature, interviews and questionnaires, scenarios of the new roles will be developed in such a way that they can be used for economic modeling of different remuneration models. The information provided should allow a realistic costing of the new services to be used in negotiations for the new contract, and also predict how different models will affect different providers within the current community pharmacy network.
Professor John Cairns has recently joined the NICE Appraisal Committee. The committee is responsible for judging whether particular interventions can be recommended as a cost-effective use of NHS resources.

Professor Mandy Ryan ran a workshop titled Using Discrete Choice Experiments In Health Economics as part of a PhD course at University of South Denmark in January. The enthusiastic response of participants has resulted in HERU planning a further two-day workshop aimed at non-economists. This will be held at Aberdeen University later in the year. Further details of this workshop will be in the summer newsletter.

Recently awarded research projects include

The role of automated grading of diabetic retinopathy in a primary care screening programme. £203,827 awarded to Dr J Olson, Professor P F Sharp, Dr K Goatman, Mr P McNamee and Mr G Prescott. This project is funded by Scottish Executive Health Department Chief Scientist Office.

Dr Diane Skåtun is a Principal Investigator on a large project financed by the European Commission, which has recently been awarded to Professor Ioannis Theodossios in the Department of Economics. The project entitled: Socio-economic and occupational effects on the health inequality of the older workforce (SOICOCOLD) is a collaborative venture bringing researchers from 6 EU countries together.

Applications are now welcome for the next intake of students to our Distance Learning Course. This course, accredited by the University of Aberdeen and Royal College of General Practitioners, is modular based.

- Module 1 - Introduction to Economics and Health Economics
- Module 2 - Economic Evaluation - Principles and Frameworks
- Module 3 - Economic Evaluation - Applications and Policy
- Module 4 - Health Care Systems and Policy

The course is designed for health care professionals who want to gain a recognised qualification in health economics.

To find out more about the course visit our website or contact Professor Mandy Ryan (m.ryan@abdn.ac.uk), Course Director, or Laura Heatherwick (lah@heru.abdn.ac.uk), Course Secretary.

Application forms can be downloaded from our website (http://www.abdn.ac.uk/heru) or obtained from the Postgraduate Registry, University of Aberdeen (Tel +44(0) 1224 273506, email ptgoff@abdn.ac.uk).

WORKSHOPS ON ECONOMIC EVALUATION

In May 2003, Luke Vale, Senior Research Fellow, and Moira Napper, Information Officer at HERU, will present a series of workshops on the identification and appraisal of economic evaluation studies entitled, Evidence-based Decision Making: Getting the Best from Economic Evaluations.

These half-day workshops are designed to promote the effective identification and utilisation of information on efficiency by decision-makers within the health service. Details of the workshops can be found in the enclosed flyer.

Workshops are scheduled to be held in Aberdeen (May 15th), Edinburgh (May 22nd) and Glasgow (May 27th). The fee per person is £35.00 including refreshments. For further information contact Moira Napper on 01224 553262 or at m.napper@abdn.ac.uk, or visit our website at www.abdn.ac.uk/heru/whatsnew See enclosed flyer for more details and booking form.

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