依頼論文

The Development of Health Economics at the University of York

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Introduction

Over the last 30 years a group of economists and social policy analysts at York have developed a research and teaching expertise in health economics and health services research which is internationally renowned in terms of its contribution to knowledge and policy formation This expertise is located in a small northern city, 200 miles away from London and is part of a small (some 6000 students) but excellent university.

The purpose of this paper is to describe the development of health economics at the University of York The success of the York group is explained, in large part, by the almost fortuitous coming together of a group of like minded economists who, having identified a need for increased input of economic analysis in health and health care, struggled to both develop and market that capacity in Britain and the rest of the world. This paper examines how personal links and much determination were used to create the existing complex of health economics and health services research at York.

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1. The Antecedents of the Health Economics Enterprise at York: Be reasonable! Do it my way!

Professor Alan Williams has been the driving force behind the development of health economics at York for over 30 years. He has a notice in his office which says "be reasonable! Do it my way!" This statement is more than a joke, it is the principle which has driven his creation of the York health economics empire. His stimulation of Culyer (who he taught as undergraduate at the University of Exeter in the mid 1960s), Maynard (who he taught as a graduate student at York in 1967-68), Drummond (whose PhD thesis he supervised) and Gravelle (who worked with him as a researcher to the Government's Royal Commission on the NHS in the late 1970s) created a cadre of innovative researchers and the development both of the knowledge base of the economics of health and health care and also its dissemination.

Williams' original academic interest was public finance and it was not until he was working at the Treasury (the Finance Ministry) and was seconded to the Ministry of Health that he was first confronted by the complexities and peculiarities of the UK-NHS. He was sent to the

Ministry of Health to review an expanding and expensive hospital capital building programme, he sought to identify the investment criteria used by the civil servants. He had expected, naively, that resources would be targeted at capital formation where it achieved the greatest health gain. He found that the Government officials used indiscriminate and implicit criteria and had no measures of health productivity. Indeed they greeted Williams' ideas on health measurement with jovial dismissal of such an 'impossible' notion.

One exception to this rejection of the notion of health measurement came from a Government adviser called Professor A. L. Cochrane. Cochrane encourage Williams to develop his ideas and Williams educated Cochrane about the need to inform clinical decision making with evidence, not just about the clinical effect of competing interventions but also about their cost effectiveness. Thus Cochrane, a doyer of the UK medical establishment, wrote in his famous 1972 book[1]:

> "allocation of funds are nearly always based on the opinions of senior consultants. but. more and more, requests for additional facilities will have to be based on detailed arguments with "hard evidence" as to the gain to be expected from the patients angle and the cost. Few can possibly object to this'

Williams' leadership during this period of the development of health economics was crucial. He developed his ideas of health status measurement, with York colleagues Culyer and Lavers, and embarked a period of research which lasted for over 25 years[2),3)]. In addition he led the development of techniques of economic evaluation in health care[4),5)], producing the first checklist of the characteristics of a good study (Table 1).

Table 1 Williams' Checklist for Economic Evaluation

A basic checklist of questions runs as follow:	
1.	What precisely is the question which the study was trying to ask?
2.	What is the question that it has actually answered?
3.	What are the assumed objectives of the activity studied?
4.	By what measures are these represented?
5.	How are they weighted?
6.	Do they enable us to tell whether the objectives are being attained?
7.	What range of options are considered?
8.	What other options might there have been?
9.	Were they rejected, or not considered, for good reasons"?
10.	Would their inclusion have been likely to change the results?
11.	Is anyone likely to be affected who has not been considered in the analysis?
12.	If so, why are they excluded?
13.	Does the notion of cost go wider or deeper than the expenditure of the agency concerned?
14.	If not, it clear that that these expenditures cover all the resources used and accurately represent their value if released for other uses?
15.	If so, the line drawn so as to include all potential beneficiaries and losers. and are resources costed at their value in their best alliterative used?
16.	Is the differential timing of items in the streams of benefits and costs suitably taken care of (e. g. by discounting, and, if so, at what rare)?
17.	Where there is uncertainty or known margins of error, is it made clear how sensitive the outcome is to these elements?
18.	Are the results, on balance, good enough for the job in hand?
19.	Has anyone else done better?

This initial "colonising" of clinical minds, convinced some leading medical researchers and policy makers of the need to train health economists. Williams convinced Sir Douglas Black, who Was Chief Scientist in the Department of Health, to fund the creation of the Graduate Programme in Health Economics at the University

of York. This programme took in its first students in 1976 and has in the subsequent period of over 20 years trained many of the health economists working in the UK and numerous practitioners in other countries.

The Graduate (MSc) programme was directed initially by Maynard (and subsequently by Culyer. Loomes. Posnett and now Dr. Andrew Jones) and was a distinctive approach to the training of practitioners of health economics. It emphasized, and continues to emphasise, the importance of economic analysis in the understanding of the health production process and the health care industry. Also its perspective, unlike American courses, is very much about the measurement of the performance, and the efficient development of publicly funded health care systems like the UK-NHS.

Thus by the end of the 1970s Williams had successfully developed health economics at York. There was by then a cadre of researchers and teachers, including Culyer, Ken Wright (with a research focus on community care) and Maynard. There was a vigorous graduate school producing not only MSc students but innovative PhD students. such as Michael Drummond. who were developing activities central to the sub-discipline, such as the economic evaluation of competing therapies. Research activity was already significant with funding not only from the Department of Health but also from the Social Science Research Council.

2. The Creation of the Center for Health Economics

The advent of the Thatcher Government in 1979 led to pressure on the Social Science Research Council (a publicly funded research body) to demonstrate "relevance" to the dominant 'enterprise' culture of the new administration. One method chosen by SSRC to protect itself was to form coalitions with Government ministries. A nice example of this was the agreement of SSRC and the Department of Health to build on their investment in York in health economics in the 1970s and create a Centre for Health Economics.

Again the key individual in the bidding for this public funding was Alan Williams. He and his colleagues used the framework in figure 1 to demonstrate the scope of the sub-discipline.

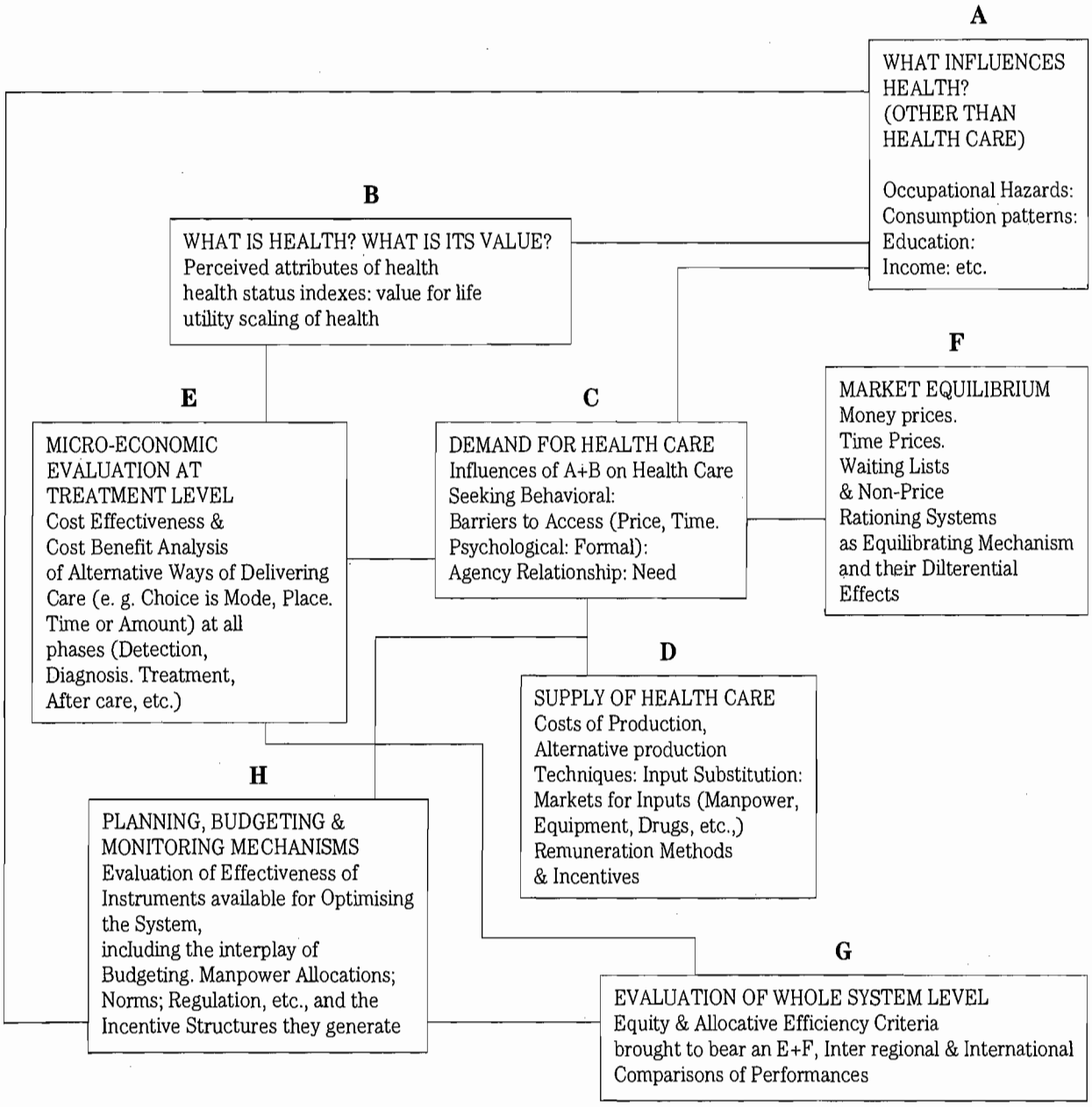
The *Centre* for Health Economics (CIIE) was created in 1983 and its Founding Director was Alan Maynard. The initial (1983) contract with the Social Sciences Research Council (subsequently the Economic and Social Research Council) required SSRC funded staff in CHE to work in any two of the following topic areas:

i) inequalities in access to health care (boxes C. D and F.).
ii) the valuation of health (box B).
iii) the economic evaluation of clinical alternatives (box E),
iv) the supply of health care (box D);
v) the evaluation of whole systems of health care and planning (box G);
vi) budgeting and monitoring (box H),

The ESRC contract required staff to:

i) to help fill major gaps in social science research;
ii) to enrich and accelerate existing work of outstanding value;
iii) to promote the development of specialist

Figure 1 The Nature of Health Economics



techniques;

iv) to disseminate the results of this work;

v) to carry out teaching and research which consistent with the Centre's objectives.

The Department of Health element of CHE focused on the funding of research into:

i) the transition to community care;

ii) health outcome measurement;

iii) medical technology

Thus the remit of CHE was broad and the Director and his staff had to meet the fluctuating and not always complementary objectives of their funders. The ESRC financing of the Centre funded the Director (Maynard), senior staff (Bosanquet (1984-1988) and Carr-Hill) together with 4 junior researchers and support staff. The Department of Health funding was used to employ one senior

researcher (Ken Wright) and 3 other researchers and support staff.

The Director and his staff were relatively free, within the remits above, to pursue their work subject to review after four years (1987) and just prior to expiry of the ESRC contract in 1990. The ESRC contract was for an initial and finite period of 8 years and the council hoped this would created the basis for independent funding subsequent to 1991. All senior staff were, subject to the Centre's remit, free to pursue additional funding from other sources, both public and private.

During its life CHE has been the source of a series major initiatives which have led to the creation of associated centres in York. The first of these was the Addiction Research Centre. In 1983 the Universities of York (Alan Maynard) and Hull (David Robinson) jointly bid for and won a (ESRC) contract to carry out a programme of research in addiction (alcohol, tobacco and illicit drugs). The economic elements of this work led to the recruitment of an established researcher (Chrine Godfrey) and support staff. The second initiative was the York Health Economics Consortium (YHEC). Its creation was the product of demand from NHS managers for a better focused service of economic consultancy which met the immediate needs of the Service. YHEC was created in 1986, currently employs 23 staff and is directed by Dr. John Posnett.

In 1991 ESRC Centre funding ceased although project support from the Council continued. Centre staff (in particular Trevor Sheldon) successfully bid in 1992 to the Department of Health for the NHS-Centre for Reviews and Dissemination (NHS-CRD). This was created in 1993, with Sheldon as Director. and currently employs 37 staff.

The Department of Health not only funded NHS-CRD at York. it also awarded a contract to the Universities of Manchester, Salford and York in 1993 for a period of 10 years to create an NHS Centre for Research and Development in Primary Care. The York element of this is concerned with the economics of primary care and is directed, within CHE, by Hugh Gravelle, and employs 3 other researchers.

In 1995 Maynard resigned as Director of CHE and was succeeded by Michael Drummond who had been working in the Centre since 1990. CHE is now core funded on a 4 year rolling contract by the Deportment of Health and acquires the rest of finance from competing for funds advertised in Department of Health, other research programmes and the pharmaceutical industry. Is has a staff of 51 and a vigorous research and publication agenca. There are 4 full professors in CHE (Drummond, Gravelle, Smith and Williams.)

3. Health Economics at York: a Review

From Williams' initiatives in the 1970s, a set of international renowned initiatives and individuals have produced, over nearly two decades, a stream of innovate research as well as providing education for many graduate students. From diffuse and limited activity in the 1970s, the York group now consists of three centres (CHE, YHEC and NHS-CRD), details of which can be accessed through their web-sites:

http://www. york. ac. uk/inst/che/
http://www. york. ac. uk/inst/crd/
http://www. york. ac. uk/inst/yhec/

These research units both dominate and lead health economics research in the United Kingdom in particular. Currently their employ 111 staff. In addition in the teaching department (Economics and Related Studies), chaired by Tony Culyer, there are 66 staff involved in health economics research.

This success is the product of a group of individual entrepreneur academics who have determinedly striven not to enhance their individual prowess alone, but to develop their careers and reputations as part of the York group;close collaboration has proved to be an effective means of developing funding and academic output of high quality. All involved in this work have brought qualities of leadership, intellectual rigour and determination together to ensure that the group's goals of enhancing the health economics knowledge base and disseminating new knowledge have been pursued successfully.

This process of developing health economics at York has inevitably led to the identification of a series of conflicts and pressures in the development of the sub-discipline. The first of these is that funders tend to want not only "good science" but also "relevance". The capacity of health service decision makers, be they clinical or non-clinical managers, to innovate and to evaluate at the same time in limited due to absence of expertise and poor incentives. Managers rarely get rewarded for evaluating and producing information for future knowledge based policy making Policy makers confronted with a political imperative to implement, for instance, general practice fund holding, do not have the skills to work with researchers to convert innovation into experimentation with an appropriate design.

As a consequence policy makers tend to find some research irrelevant, Sometimes this may be down to poor dissemination by researchers (a supply side problem) but sometime "irrelevance" is the product of poor management education (a demand side problem).

A problem confronted by all research groups in health economics is funding. Practically all the York work has been funded on "soft money" ie resources have been brought in on relatively short term contracts with even senior staff having little assured continuity in funding. The consequence of 'soft funding' is that much research time is used to identify, pursue and win the next research grant. 'Soft money' provides incentives for researchers to complete their work on time and to specification for without doing this the next grant will not be available.
However a balance has to be struck between career development and soft money incentives and this can be assisted by the host institution taking some of the risk out of researchers' lives. This has happened inadequately and at the margins. The university of York has benefited considerably from the development of health economics research on its campus but has offered only modest support to this enterprise over two decades.

A consequence of 'soft-funding' is that career development can be a problem. Human capital depreciates, and if researchers are not given time and space to retrain, their skills can become redundant. The pressure to chase the research funds can lead to the failure of contract researchers to keep up to date with the literature and in new quantitative skills (eg multi-level modeling). The avoidance of this problem can be expensive for researchers, research units and Universities.

An unusual feature of the York health economics activities is the absence of a Medical School. York researchers emphasise that their research perspective is economics and that is their comparative advantage. Where they need to work with medical practitioners they can and do choose the best (rather than the local if there were a medical school) collaborators. An absence of medical practitioner colleagues on the York campus has not constrained the development of the York group. Also it has had the advantage of avoiding potential hierarchy and power problems. York health economics research tends to be York economist led rather than non economic led by some local and perhaps disinterested medical professor!

4. Conclusions

The development of health economics as York has been remarkable and is the product primarily of a small group of academics who have striven with great determination to apply economic analysis to health and health care. This paper has. due to modesty, not sought to describe the academic work of the group:this can de done by those interested in citation analysis.

The sub-discipline of health economics has grown in Britain but is growth has been uneven, taking place largely in the economic evaluation and with inadequate research of issues in the other boxes of figure 1[6].

The emerging new generation of health economists will extend health economics out of being predominantly in box E (figure 1) and into the complex and fascinating areas of boxes C and D in particular. It is remarkable how far the sub discipline has developed and it is equally remarkable how much more research remains to be done to ensure that both clinical practice and policy making in health and health care are evidence based[7].

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