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## article

# The politics of knowledge transfer in health: a case study of a health economics research unit in England

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Economics is now central to health policy decision making, within government departments and the National Health Service. We examine how and why a health economics academic unit – the Centre for Health Economics (CHE) at the University of York, England – was created in 1983, funded and commissioned to provide research evidence to the British government, specifically the Department of Health and Social Security (DHSS) and its successors. Building on the knowledge transfer literature, we document the origins of this relationship and the different strategies deployed by successive governments and researchers. This paper demonstrates the value of historical methodologies such as oral history and textual analysis that highlight the limitations of existing knowledge transfer theories, by foregrounding the role of politics via the construction of individual relationships between academics and policy-makers.

**key words** knowledge transfer • health economics • history • health policy

### key messages

- Critically analyses the development of knowledge transfer between British health economics academic units and government health policy-makers.
- Develops knowledge transfer theory by demonstrating a greater role for politics and individual relationships.
- Provides a first detailed case study of how a British academic unit for health economics developed a relationship with a government department.

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## Introduction

Since its emergence in the 1960s in the United Kingdom (UK), health economics – or economics as applied to health – has sought to influence health policy-making, especially through mobilising ideas of scarce resources, supply–demand and cost–

effectiveness. Key successes include the Quality-Adjusted Life-Years (QALYs) concept developed with Department of Health and Social Security (DHSS) funding in the 1970s, the 1989–1991 National Health Service (NHS) internal market reforms, and the creation of the National Institute for Clinical Excellence (as NICE was initially known) in 1999.

The relationship between government and health economics research – here understood primarily as the academic community – has changed significantly since the 1960s. This paper focuses on the creation of a health economics academic unit, the Centre for Health Economics (CHE) at the University of York in 1983. It was supported by government funding through the DHSS (which became the Department of Health (DH) in 1988, and the Department of Health and Social Care (DHSC) in 2018), from an initial £20,000 in 1971 to almost £1.4 million in 2016–2017. CHE staff provided health policy evidence and advice to civil servants and government ministers in the DHSS/DH. Their emerging relationships were mirrored by other academic disciplines that, by the 1970s, were routinely called upon in the formation of health policy, especially clinical research and epidemiology. In 1973 in England and Wales, there were ten designated academic research units and 42 institutional groups with DHSS contracts (McLachlan, 1973), spanning interests and disciplines as varied as child psychology and domestic violence.

This paper analyses how this specific government–research relationship developed. It draws on primary data from archive documents (from CHE, academics’ personal papers, and the National Archives), 44 semi-structured interviews with key civil servants and academics, and a witness seminar on the development of health economics. It builds on the knowledge transfer (KT) and evidence-based policy-making literatures to examine the changing relationships and strategies deployed by both sides which led to significant changes in health policy construction over a 30-year period. It highlights the gap in existing KT theories through their lack of engagement with chronological and political factors, and demonstrates how their inclusion produces a more holistic analytical framework and the importance of focusing on different aspects of KT, from relations, to tools and strategies.

The paper first sets the context of the increasing influence of health economics from the 1960s, and identifies useful KT literature. The research methods and case selection are outlined before presenting the key case-study findings. It concludes with a call for a broader platform for knowledge transfer theory, where historical and political analysis are formal components, and demonstrates how this illuminates the centrality of politics (expressed as power plays over rules, identities and other objects) in knowledge transfer.

## **Background: the rise of health economics**

British economists have been successful in permeating health policy-making arenas since the early 1970s, as illustrated in Table 1 below which tracks some of the key events. The influence of economics grew within the UK government in the mid-1960s. In 1964, a Treasury unit was established – the Government Economic Service (GES) – dedicated to hiring and dispatching economists across government departments. In 1968, the Economic Advisers’ Office (EAO) was established within the DHSS to advise administrators and politicians on economics, initially on social security policy and, from 1970, on health. The EAO not only hired economists to

**Table 1: Timeline of Health Economics Knowledge Transfer in the United Kingdom**

Key Academic activity	Year	Key Government Activity
	1961	Publication of the Plowden Report on the Control of Public Expenditure
Creation of the University of York; The Institute of Social and Economic Research (ISER) is created at York	1964	
Alan Williams seconded to the Treasury (1966–1968); York receives £45,000 from the Nuffield Provincial Hospital Trust (NPHT)	1966	Creation of the Government Economic Service (GES)
	1967	Publication of the Fulton Report on the Home Civil Service
	1968	Creation of the Economic Advisers' Office (EAO); The Ministry of Health becomes the Department of Health and Social Security (DHSS)
Economics of Medical Care Conference at York	1970	First two economists appointed in the EAO
York receives £20,000 from DHSS	1971	Publication of the Rothschild Report on the Organisation and Management of Government R&D
The Health Economists' Study Group (HESG) holds its first meeting	1972	R&D money moved from the Medical Research Council to the DHSS
The Health Economics Research Unit is created at Aberdeen with Scottish Office grant	1977	
Masters of HE created at York	1978	
University Grant Committee is abolished	1979	Margaret Thatcher becomes Prime Minister
Creation of the Health Economics Research Group at Brunel	1981	R&D money returned from DHSS to MRC
Centre for Health Economics (CHE) created at York with £478,000 grant	1983	
	1988	DHSS becomes the Department of Health (DH)
	1989	Maynard develops idea of General Practitioner fundholding with David Willetts MP
	1991	Creation of the NHS internal market
	1999	Creation of NICE

advise DHSS policy-makers, but it also advocated for DHSS funding for a number of health economics academic projects and welcomed economics graduates on placements and secondments.

Health economics gained influence with policy-makers through some of its key proponents such as Alan Williams, Tony Culyer and, later, Alan Maynard; and several who focused their interests on Scotland including Roy Weir, Gavin Mooney and Elizabeth Russell. Via various contacts with government and other organisations, these economists built a network of influence with policy-makers, applied for DHSS

funding (Williams, 1985) and delivered knowledge transfer (KT) via briefings, the development of new health policy relevant tools and through established networks.

## **Knowledge transfer: a complex and confusing literature**

The development of health economics provides a fertile territory in which to examine how knowledge is transferred between academia and government. KT first gained the attention of policy theorists in the 1950s (Evans et al, 1985; Lasswell, 1951; Pierson, 1993) and was bolstered by the growth of evidence-based medicine for health policy (Cochrane, 1972). Government interest in social science research, including economics, intensified from the 1960s, with growing investment and use of research in policy and administration (Bulmer, 1987). The DHSS funded the creation of academic units to ‘produce knowledge’ by investigating a wide range of issues, including social epidemiology, industrial diseases and childhood health (Kogan et al, 2006). But the uptake of academic social science-based knowledge by the UK government in the 1960s–1970s was relatively limited compared to the United States. This can be linked to the particular culture of the British civil service and its reliance on internally produced knowledge, practical expertise and closed networks (Bulmer, 1987; Maybin, 2014; Theakston, 1999).

This knowledge transfer issue has been well-discussed in the literature, with varying problematisations and solutions. Yet few studies have looked at the specific role of academic research units set up by governments (for example, Louidor et al, 2008). A little more has been written on the question of KT in health economics, although few focus on academia-government KT (cf Armstrong et al, 2013; Léon et al, 2013). A small number of the 116 studies found on the topic of health economics KT are worth noting. For example, Jacobsen et al problematise the structure of academia, explaining that transfer could be promoted by the development of specific internal structures such as ‘dedicated units... with [a] mandate to engage specific user groups or specific topics’ (Jacobsen, 2004; also Coburn, 1998). Although not dealing with research units specifically, Ettelt et al’s (2013) paper on the setting-up of a DH-funded rapid-response unit to provide international healthcare comparisons is interesting for its discussion of the barriers to policy-research linkage. They explain that structures are required to facilitate KT and increase research-government interactions. They argue that such structures can help build trust and grow the credibility of researchers, although risks may include increased demands on time and resources, mismatch of timelines and incentives, and a lack of institutional support and organisational culture to sustain the exchange. This structure was seen as a one-way transfer from research to DH, where policy-makers would ‘tap into’ the researchers’ knowledge and network as and when needed for quick policy responses. Although they mention ‘policy research units funded by the Department’ as important, they do not discuss these in detail (Ettelt et al, 2013, 249).

Hanney and colleagues (2003) helpfully review the literature on the utilisation of health research in policy-making. They explain that despite all the research-government links that exist, policy-makers still tend to make decisions in which research/evidence plays little direct role. They consider the ‘[d]evelopment of long-term research centres focusing on particular topics [as] one of the potentially strongest ways health service research can take action to increase the possibility of research being used to inform policy’ (Hanney et al, 2003, 15). Although Hanney et al discuss

epistemic communities and knowledge brokers, they do not discuss specific units, focusing instead on the national level. Internal brokerage is flagged as important in the case of health economics: the hiring of economists within government appears to have impacted – positively and negatively – on the development of these research units and their influence on health policy-making. They explain that these internal brokers ‘might be officials with either a scientific or a professional or a policy-making background... they may be able to assume the skills and value-set of boundary-crossers and research enablers’ (Hanney et al, 2003, 17). For Ettelt et al (2013), the knowledge-brokering role of DH liaison officers was seen as key in commissioning and advising on research on behalf of ministers and keeping researchers informed of policy needs.

Among the many classifications available, Smith offers a helpful categorisation of traditional KT theories (Smith, 2013). These include: a knowledge-driven model; a problem-solving model; a political model where politicians and policy-makers use research to support predetermined policies for political reasons; a tactical model where research is used to delay policy-making; a two-community model where policy-makers and researchers inhabit different worlds with different values and language leading to difficulty in informing policy (cf Caplan, 1979); and an enlightenment model where research, indirectly and long-term, influences policy-making by slow percolation (for example Weiss, 1977). This case study critically evaluates these frameworks and examines some of their advantages and drawbacks for understanding the history of KT in UK health economics. In particular, it builds on critiques of the use of expert knowledge in policy-making produced by Boswell (2009) and Parkhurst (Liverani et al, 2013; Parkhurst, 2017).

Parkhurst notes that the ‘decidedly political nature of policy-making’ is often ignored by the literature on the uses of evidence in policy-making (Parkhurst, 2017, 1). A systematic review of evidence use in health policy-making found that only six studies overtly analysed the political nature of the knowledge transfer process (Liverani et al, 2013). A study on Mexico’s health policy-making concluded that the hierarchical nature of an organisation could prevent the uptake of research evidence by barring the infiltration of evidence to higher echelons (Trostle et al, 1999). Liverani and colleagues’ review also highlights how the wider policy and political goals of a government may influence the uptake of evidence (Wilson and Sheldon, 2006), something highly relevant to the uptake of health economics during the 1970s and 1980s UK government budget restrictions. Other studies on health knowledge transfer best fit into a tactical category, where evidence is used to discredit political opponents (for example Bowen et al, 2009) or to delay decision making (Gordon, 2006).

We also mobilise Boswell’s (2009) three-part explanation of expert knowledge use in policy-making. She argues that, additionally to the traditional knowledge gap function – expert knowledge coming to fill a gap in policy-makers’ understanding of an issue and thus helping them formulate a solution – there are two more political rationales for policy-makers to call on expertise. First, it can be mobilised to *legitimise* a government agency, with the perception of such agency having access to expert knowledge bolstering its authority in the policy community. Second, expert knowledge can be mobilised to *substantiate* particular policy positions/preferences, undermining those of others. Here, the symbolic value of expertise such as economics can be helpful in a contested policy area such as healthcare (cf Markoff and Montecinos, 1993). In our analysis, we focus on different KT methods, from direct KT tools as policy briefings,

or the development of new health policy instruments to relationships, networks and other indirect aspects such as the provision of educational programmes. To us, these all form part of KT and are important objects of analysis in understanding the politics of KT.

## Methods

This case study of the Centre for Health Economics (CHE) at the University of York, one of the earliest and most successful academic health economics units, forms part of a larger project on the role of expertise in British health policy formation since 1948. Based on the rich data collected from a number of sources, CHE's work with UK government appeared complex and worthy of investigation. It raised the question of how this unit adapted to government demands for evidence and deployed strategies to address these in parallel with securing its own priorities (for example, funding) and values. Documents were identified in archives including the University of York ('CHE Archives' and 'York Borthwick Archives'), DH ('DH Burnley'), and the National Archives ('TNA' for 'The National Archives'). Semi-structured oral history interviews were conducted with 44 participants, who were recruited via a snowballing method and from references obtained through document analysis. We constructed the sample to include academics, civil servants and other individuals such as medical professionals. This was done to counterbalance an existing bias in the health economics literature which presented a hagiographical account of the development of the discipline and some of its achievements. These interviews were recorded digitally and transcribed. For the purposes of this paper, they have been anonymised. They are referred to as CHE, DH, Academic (non-CHE) or EAO, to signify their primary working location, followed by a number. Two autobiographical pieces written by participants were helpful in adding personal narratives on the development of health economics. We also convened a witness seminar in October 2017 with 11 academics and government economists, recruited based on our knowledge of the field and other participants' suggestions, to discuss the development of health economics in the UK, the history of CHE and KT with the DH. This event, which was recorded and transcribed, was useful in generating a more conflictual story, where 'facts' could be questioned and discussed by participants.

This material was supplemented by secondary sources, especially historical studies of research management in government (for example, Kogan et al, 2006). These data were interpreted by us with the help of NVivo, drawing a multi-faceted picture via the construction of broad themes such as creation, actors, relations, occurrences of policy-making, resistance, competition from other advisory actors, based on the reading of each source. These themes, and later codes, were adapted as each source was read and re-read. This diversity of sources was essential to address two practical issues. First, only six relevant files from the Economic Adviser's Office (EAO) in DHSS, which managed the relationship with the University of York unit, have been preserved at the National Archives. Second, the length of time that has passed since these events took place (1970s–1990s) meant that we could not rely solely on participants' accurate recall. We therefore triangulated specific points between a range of interviews and archive sources. Different sources highlighted the possibility of multiple truths and interpretations of events, which removed the pressure on interviewee recall. The findings in the sections that follow are presented chronologically for ease of

understanding. However, the numbers and uses of KT strategies and the relationships analysed fluctuated across this period.

### **York economists and the Department of Health and Social Services: a special relationship?**

The creation of the Centre for Health Economics (CHE) in 1983 at the University of York was part of a longer and wider process of knowledge transfer in UK health policy. In the 1970s, the central body (and largest funder) for clinical research commissioning in the UK was the Medical Research Council (MRC), created by the 1919 Ministry of Health Act and based on the Haldane principle that scientific research should be free from ministerial direction. By 1970, the MRC had a budget of £19.1 million (BMJ, 1970), although only a small proportion was dedicated to health *services* research (HSR). This arrangement emphasised a two-community approach to KT. In 1972–1973, a quarter of the MRC’s budget was transferred back to the DHSS and the Scottish Home and Health Department<sup>1</sup> (SHHD) following the Rothschild Report (1971). This decision reflected the government’s view that the MRC privileged clinical research over HSR (especially social science-based research). Following Rothschild, it was decided that ‘applied’ research should be subject to a customer–contractor relation in which departments were better able to specify their needs, echoing Ettelt et al’s (2013) argument for the need for institutional support for KT. Thus in 1972–1973, the DHSS spent £15.4 million on research and development (R&D), including £2.9 million on ‘health and social care and public health services’ and over £8 million internally on activities such as operational research and economics (McLachlan, 1973, xii). The Nuffield Provincial Hospitals Trust (NPHT) think tank also played a key role in opening up HSR by providing funding to academic units. In 1971, this was equivalent to nearly a third of the DHSS’s R&D budget (McLachlan, 1971).

In response to the 1971 Rothschild Report, the DHSS reformed how it managed and commissioned research. The DHSS employed a mix of designated units, programmes and other funding frameworks to ‘expand its research resources rapidly’ (McLachlan, 1971, 14). A quarter of the DHSS R&D health services budget was spent on individual external projects. The rest financed eight units and 40 longer-term projects through seven-year funding agreements which had broad terms of reference to address an issue or develop particular methods. This was in addition to MRC-funded clinical research units. The 1972–1973 decision to transfer funds from the MRC to the DHSS was reversed in 1981, when some funding was returned to the MRC. This highlighted changing politics towards research and its role, especially social science research (Atkinson and Sheard, 2018; Jasanoff, 1994).

#### *The origins of the relationship*

It is within this complex and changing web of DHSS R&D funding that the relationship with York economists developed in the late 1960s–early 1970s, culminating in the creation of the CHE in 1983. In comparison to other Whitehall departments, the DHSS was relatively late in developing an interest in economics. This delay has been attributed to the discomfort associated with mobilising economics concepts of cost, effectiveness and efficiency for health issues (Colvin, 1985; Pole, 1968).

Nevertheless, in 1966, the Ministry began exploring ‘possibilities of using cost/benefit or cost effectiveness analysis to estimate the value of specific projects or assess the merits of alternative schemes’ (TNA BN/155.4, NHS Economic Analysis). In 1967, a ministry-commissioned report advised on the recruitment of economists working on health and social security, leading to the creation of the Economic Adviser’s Office (EAO) in the DHSS in 1968 (TNA, BN/155.4, Osmond report, 16 May 1967). Two economists, David Pole and Jeremy Hurst, were appointed in 1970.

In parallel, the newly-inaugurated University of York initiated an academic grouping around health economics. The Institute of Social and Economic Research (ISER) was created in 1964 within the Department of Economics at York. It was led by Jack Wiseman and included economists such as Alan Peacock, Tony Culyer, Alan Williams, and Bob Lavers. Its main research focus was on the application of economics to public sector issues including health. In 1966, it received a four-year £45,000 grant from the NPHT ‘for the facilitation of research activities concerned with social and economic problems of health’ (Tony Culyer report, Research in HE at the University of York, June 1971, 1, CHE archives). This facilitated the forging of a close relationship with the Nuffield Trust and later with DHSS.

From the late 1960s, a number of factors highlighted by the KT literature were at play in building the relationship between DHSS and York economists. These include the presence of ‘brokers’ such as Professors Alan Peacock, Jack Wiseman and Alan Williams at York, and Gordon McLachlan, NPHT Secretary from 1956–1986, who was well-connected within government and research. These individuals were critical to bridging the two different worlds, as Hanney et al later also found (2003). Williams’ 1966–1968 secondment to the Treasury is significant here. He worked on health matters within the Treasury’s Management Accounting Unit (MAU), which sought ways of achieving efficiency across government. He built a network with a number of key people such as Max Wilson, then a medical professional in DHSS working on centrally-financed programmes who later became a Senior Principal Medical Officer in DHSS (1972–1976). Williams collaborated with Wilson on the question of cost-benefit analysis in health (Letter from AW to MW, 14 August 1969, CHE Archives, Early York Health projects box). He was also friends with Alec Cairncross, then head of the Government Economic Service. At the MAU, Williams was particularly interested in cost-effectiveness studies in health (Letter from AW to Robert Harcourt, Brunel University, 29 February 1968). From the early 1970s, another founding health economist, Alan Maynard, was seen as “very good at cultivating people and I think he cultivated more than was cultivated by. He was very good at cultivating Gordon [McLachlan] and Gordon was a very influential guy” (Tony Culyer, Witness seminar, in MacKillop et al, 2018). Here, the importance of networks in the circulation of knowledge in government was evident, echoing Freeman and Sturdy (2014).

Another key factor in forging a KT relationship between economists and government was growing interest in wider policy issues around controlling public expenditure and improving the effectiveness of government and its commissioning. The Fulton, Plowden and Rothschild reports all demonstrate the emerging focus on applied research and the need for evidenced/rational policy/decision making (Fulton, 1967; Plowden, 1961; Rothschild, 1971). There were also new government-wide projects such as the Planning-Programme Budgeting-System (PPBS) where economists fitted naturally (Lowe, 1997; O’Hara, 2007). Government needed more economics experts: these were in short supply in the civil service, which drove the



search for them in academia (Allan, 2008). These changing government priorities and their call for new types of expertise illustrate Smith's political model of KT where research supports pre-determined policies.

### *The 1970 York conference: a key moment in the birth of the relationship*

A crucial moment in the evolution of this specific KT relationship was the 'Economics of Medical Care' conference held at the University of York in January 1970, in association with the DHSS. This meeting was attended by some of the most influential people in HSR such as Richard Cohen (Deputy CMO and later DHSS Chief Scientist), Max Wilson, Gillian Ford (a DHSS Senior Medical officer) and Archie Cochrane. Senior external economists attending included Denis Lees (a key proponent of a more neoliberal approach to healthcare), George Teeling-Smith from the think tank Office of Health Economics (OHE), and Malcolm Levitt from the Treasury. Gordon McLachlan from NPHT was also present. This event is an example of an attempt to bridge Caplan's two-communities divide in KT. It established the research needs of government and the NHS and what an economics approach could bring to the debate. For York, it was an opportunity to propose a programme of economics research in health, to be funded by the DHSS, which simultaneously developed basic and applied knowledge in this new discipline. In June 1971, one of the key actors in the development of this relationship, Tony Culyer, wrote in a report for NPHT:

From our point of view, a close liaison of the type we have in mind would keep us more or less constantly informed as to the current policy problems, while from the point of view of DHSS (in particular) we would hope to be able to take on *ad hoc* projects that may be felt appropriately handled outside the Department from time to time, to act as a resource for comment and discussion of internal papers. (Tony Culyer report, Research in HE at the University of York, June 1971, ISER, CHE archives 'Early York Health Projects' box)

From the DHSS perspective, there were some key issues that contributed to the push for building a KT relationship with York, notably the lack of economists in government working on health, which PJ Wormald, the DHSS Assistant Secretary, acknowledged:

Our own economic and research resources are, and are likely to be, too small to enable us to do all the work that will be needed. Augmentation from outside can only come from places where there is already a strong interest in health matters and the number of such places is very limited. York is probably the strongest and most enthusiastic. (TNA, MH/166.927, Economics of Medical Care, Note from Wormald to Mr Bourton, 20 May 1971)

The York research programme was finally agreed in 1971, following a meeting at the NPHT in London (CHE archives, Memo on health research at York with the DHSS, 19 February 1971). There were subsequently a number of NPHT-hosted seminars that brought together York economists, DHSS staff and other protagonists. Culyer's introduction to one of these highlighted the issue of relevance in KT, and emphasised

York's desire to 'make sure [to be] relevant to the interests of the DHSS' by providing 'an academic service to DHSS' in two ways:

1. By undertaking *ad hoc* projects of an economic/statistical/econometric character in the short term, which are sufficiently self-contained to be detachable from the day to day work of the Economic Advisory Office [sic] and the Statistics and Research Division of DHSS and which could therefore be hived-off on to an external group.
2. By offering an 'instant' review and comment capability on current DHSS problems and/or papers. (CHE archives, NPHT Seminar, Culyer introductory comments, July 1971)

This demonstrates that academics were already anticipating the government's need for different knowledge types, with a preoccupation of relevance, timing, and presentation, which is in line with the KT enlightenment literature. As a result of these discussions ISER received £20,000 from DHSS for three key projects on waiting lists, social accounting of health and area resource allocation, and teaching hospitals (CHE Archives, Letter from JD Pole to Jack Wiseman, 3 August 1971). During the negotiations for this grant, it was clear that York was keen to grow its researcher pool. However, the DHSS was reluctant to support expansion plans, as illustrated by a note from JB Cornish, then a DHSS civil servant, later DHSS Head of Statistics and Research (1976–1978), which specified that the Department wanted 'the present team to demonstrate their ability directly in project work'. The DHSS also wanted to be able to 'choose the men [sic] we know rather than unknown yet to be recruited' (TNA MH/166.927, Economics of Medical Care, Note from JB Cornish, 20 May 1971). This highlights the Department's cautiousness in this new KT enterprise. It was also illustrated by Dr Gillian Ford's concern that York economists were not well enough connected to local clinicians and medical staff and that the Department should assist them (TNA MH/166.927, Economics of Medical Care, Letter to JD Pole, 21 July 1971). Funding continued for individual projects such as the 1979–1980 grant of £59,331 (over three years) for a training programme in economics aspects of clinical practice (York Borthwick Archives, Vice Chancellor Report to Court 1979/80).

The type of work requested from York economists varied from providing rapid advice and data, for example on use of teaching hospitals in response to a Public Accounts Committee request in 1971 (EAO 1), which aligns with the political and tactical KT models, to more in-depth and lengthy projects such as on community care led by Ken Wright at York from 1984 with discussion papers on the treatment of the mentally handicapped (as then known) in hospitals and informal care for the elderly, in line with the enlightenment thesis.<sup>2</sup>

I think in those early days if you could give them [DHSS] something they could actually use, I think that helps cement the relationship. (Mike Drummond, in MacKillop et al, 2018)

These early years were crucial in kick-starting some ground-breaking projects with wide-ranging impact on healthcare. A key example is the 1971 proposal made by three York economists – Culyer, Lavers and Williams – to the Department to develop the concept of 'health indicators'. This marked one of the origins of the QALY,

which facilitated the introduction of cost-effectiveness evaluations of treatments and the creation of NICE (TNA, MH/166.927, Economics of Medical Care, 'Health Indicators', March 1971; MacKillop and Sheard, 2018).

### *Economists in DHSS and economists at York: a special relationship*

It is evident that by the mid-1970s, EAO and York economists had already developed a 'special relationship' between individuals trained in the same discipline. The EAO for instance sent civil service job adverts to York academics (CHE archives, JL Nicholson letter to Alan Williams, 5 August 1971, 'Early York Health Projects' box). This departmental strategy of recruiting economists directly from academia rather than through the GES continued. For example, Malcolm Rees was recruited from York to the EAO in the mid-1980s, Robert Anderson (who worked with Alan Williams at York, although not on health specifically) in 1985, and Anita Charlesworth joined the DH in 1990 following her MSc at York. It can also be seen in the practice of secondments of academics to the Department. These included Ron Akehurst (from York, 1975–1977) and Martin Buxton (from Brunel, 1977–1979).<sup>3</sup> These secondments allowed economists to advise the Department from within, 'do[ing] a particular job that the DH wanted', to learn the ropes of how policy was made and how best to tailor evidence for it, although some noted that it was very hierarchical compared to academia (Academic 1 and 2). They gained experience that enabled them to fulfil a key brokerage role when back in academia, especially in terms of understanding timescales and how to present information to the Department (CHE 1 and 2; and EAO 1 and 2; also see Hanney et al, 2003).

Some York economists had privileged access and were able to bypass a complex departmental hierarchy of levels in order to have a greater impact on policy (Trostle et al, 1999). For example, in 1989–1990, Tony Culyer worked directly with ministers and administrators during the formulation of the 'Working for Patients' White Paper, writing briefs for them (CHE 4). The York economist Ken Wright's work on ambulance use 'went straight into a Departmental policy... within a week or so of coming out' (EAO 3) (York Discussion paper No 2, 1984). According to this EAO economist, Wright 'always seemed to be pottering in and out of the Department' (EAO 3). Maria Goddard's career illustrates that this arrangement was reciprocal and mutually beneficial. After an early research career at York and in the NHS, she was then hired by the EAO in 1994 to work in close collaboration with Alan Langlands, Chief Executive of the NHS, to implement the 1991 market reforms. In 1996, she returned to a senior research fellowship at York. One EAO economist explained the value of this movement of expertise:

there was a huge difference in the style of interaction and the effectiveness of the interaction, between those who'd seen it from the inside and kind of knew, at the worse what they were wrestling against and, at the best what was needed and how to get your way, and some who absolutely didn't. (EAO 2)

Economists from both DHSS and York who were interviewed expressed a feeling of mutual understanding. As internal 'brokers', EAO economists understood the data and research produced by York economists and *translated* this in policy/departmental language understandable by administrators and politicians. They understood the

machinery of policy-making better than academics and thus were able to identify windows of opportunity and present evidence in ways that would have impact (EAO 1, 2, 3, interviews). For example, in the 1971 teaching hospitals cost enquiry by the Public Accounts Committee, DH economists were aware of ongoing work at York on this topic and thus able to signpost this to the Department (EAO 1 and CHE 3). Additionally, the Department's Research and Development Division (RDD) employed liaison officers who were specifically tasked with developing the relationship between academics/academic centres funded by the DHSS and the Department (DH 1 and 2, interviews).

This relationship was cultivated in other ways and environments. One important mechanism was the Health Economists' Study Group, founded by Williams and Culyer in 1972. Its bi-annual meetings were regularly attended by Whitehall-based economists, who used the opportunity to hear about emerging research and new theoretical approaches. These two-day meetings quickly developed a distinctive culture and rituals: robust (at times brutal) critiques of academic papers, followed (for some participants) by long evenings in university bars. Through CHE and HESG meetings, Whitehall economists could establish a rapport and trust with academic economists, which was critical to how they subsequently involved them in policy-making. As discussed at the witness seminar and in individual interviews, many of these relationships became real friendships, built on mutual respect for professionalism and intellect.

A further component of KT was established in 1978, when the DHSS funded the first UK training programme in health economics at the University of York. This programme was delivered as an MSc in Health Economics specifically to build expertise capacity in academia, government and the health service (CHE 4 and 5). Alan Williams "got in people like Clive Smee [DHSS/DH Chief Economic Adviser, 1984–2002] to teach on the MSc and that exposed people like me from [an] early stage into the fact that the [EAO] existed and that you could go and work in government" (Brian Ferguson, in MacKillop et al, 2018). Karen Bloor from CHE added that "Archie Cochrane and Gordon McLachlan [also] used to come and teach on the Masters" (in MacKillop et al, 2018).

### *Post-1979 research management: the growth of economics in health*

Following the 1979 general election which brought in a Conservative government, there was an overt change of attitude by research managers towards what some interviewees described as a more political model of KT. The University Grants Committee was abolished and the Social Science Research Council's (SSRC) budget was cut. The DHSS programme at York's ISER had been reviewed and confirmed the previous day:

... the next day, the general election happened and basically after that, the SSRC was just decimated. Anything with the word 'social' in it was decimated and the funding was no longer going to be there. The programme was given a one-year extension to wind up the work it was doing. (Academic 1, Interview)

There were also changes to the Rothschild framework and funding for HSR was returned to the MRC. Although this move was criticised by some health economists

(Williams, 1981), it enabled a new phase of expansion of economics in health policy. The growth of New Public Management (NPM) could also be seen to favour the adoption of economics in health policy-making, with its focus on cost, marketisation and performance indicators (Pollitt, 1993).

It was in this new political and intellectual context that the idea of creating the Centre for Health Economics (CHE) at the University of York was first mooted. However, it could also be seen as a competitive response to the creation in 1977 of the Health Economics Research Unit (HERU) at Aberdeen with funding from the Scottish Office. CHE was inaugurated in 1983, with an initial grant of £478,060 from the Economic and Social Research Council (ESRC)<sup>4</sup> and the DHSS (York Borthwick Archives, 'Future of the ISER', Council minutes, item 83/111; CHE 4). According to Clive Smee, the Centre was not only funded for providing policy advice and MSc training but also to develop the discipline of health economics and to provide new quantitative and qualitative methods for investigating health matters (Smee, 2005). CHE was mutually beneficial to academia and policy-makers. For York, the six-year rolling contract and funding meant the end of "patching it together with ESRC money and constantly [being] threatened with running out of grant" (CHE 4). For the DHSS, it meant an additional source of economics expertise to supplement that available from the EAO. Furthermore, the long-term funding meant CHE was under an obligation to respond to DHSS requests for assistance, a pattern observed by Ettelt et al (2013). As CHE developed in parallel with DHSS policy, it not only provided solutions but identified new problems that it could address through research (Smee, 2005; TNA MH/82.110). More generally, the creation of CHE was crucial in building closer links between academia and government in health economics, allowing economists on both sides to gain greater influence. This value was apparent to another area of DHSS activity, operational research, where staff envied the access to a specialist academic unit (DH3).

CHE aimed for rapid dissemination of its research findings, and regularly produced discussion papers before conventional publication in academic journals. Its academics also sought to publish their work in health services professional journals. Collaborations were formed with government ministers through the production of briefing papers for specific draft policies. For example, Alan Maynard worked with the MP David Willetts during the GP fundholding formulation in 1989–1991 (DH Archives Burnley, GP practice budgets, General, Policy in confidence). According to one interviewee, the techniques of economic evaluation fitted in well with the ideological value for money thesis of the 1980s (CHE 2). CHE data would be "seized by the politicians, particularly where productivity was going up" (CHE 2). These examples support Boswell's substantiation argument (also Ashmore et al, 1989). Although there was an agreed principle of freedom to publish, with the DHSS only requiring notice of future publications, there is evidence that the Department would sometimes 'sit on' CHE reports because they were "embarrassing and they [didn't] want to share that with the minister" (CHE 2). This is a good example of how expertise could be used as political substantiation (Boswell, 2009). For example, in 1988, CHE published comparative data on health authority mortality rates without informing the DHSS, leading to outrage from the medical community (Kind, 1988).

The political 'substantiation' that health economics provided can also be seen in the development of QALYs, which became politically acceptable in the 1980s at a time of increasing health demands and pressure to reduce health spending (MacKillop

and Sheard, 2018). The 1970s oil shocks and public expenditure crises, followed by the post-1979 context of spending limitations and the growth of NPM, played a key role in securing the position of York academics within the community of health policy-makers: their concepts of scarce resources, cost-effectiveness, and resource allocation formulae chimed with current political values and culture. If we view this using Boswell's substantiation argument, the dominance of York economists allowed the DHSS to sideline other actors in the quality-of-life debate, such as medical professionals and ethicists (Harris, 1987; Smith, 1987). A key weakness of traditional KT theories is their failure to acknowledge and evaluate the role of personalities and politics. By politics, we mean the multiple conflicts over meaning which structure society and are seen by some critical theories to encompass relations, beliefs, knowledge and facts. This factor was demonstrated most effectively through the witness seminar held at CHE in October 2017. This brought together eleven key individuals who had worked at CHE or in government roles. The easy banter and recollection of working relationships suggested that the collaboration between CHE and DHSS/DH had relied on trust and mutual understanding as much as availability of expertise and opportunities. The event also illustrated the politics involved in utilising evidence. For example, Roy Carr-Hill, who had helped devise the NHS resource allocation formula in the 1980s, reminisced that:

[I]t turned out [the DH administrator] meant [Margaret] Thatcher didn't like the idea of having an anarchist running the resource allocation formula [laughter].

A similar politics of knowledge was present in Scotland, Anne Ludbrook explaining that "if the Minister already has a view on something, it's then very difficult to conduct independent analysis and research" (in MacKillop et al, 2018).

## Conclusion

This paper has explored KT between academia and government by illustrating DHSS civil servants and York economists' roles, relationships, strategies and tools in health policy-making. Following knowledge-driven and problem-solving KT models, DHSS civil servants commissioned policy-focused research advice. However, they also engaged in other types of KT to impact on research and the NHS, especially through training programmes for graduates, developing basic knowledge via funding the discipline, and providing briefing, notes and new tools such as QALYs. Academics also influenced policy-making more directly. Some helped to formulate policies with civil servants and politicians, as illustrated by the rapid adoption of Wright's research on ambulance use and Maynard's work on the 1989–1991 GP fundholding reforms. Yet the 'impact' of the York research was more often indirect and slow, requiring time and resources from these academics and their allies in the DHSS in order to 'sink in' and resonate with policy-makers (Davies et al, 2000; Smith, 2013; Weiss, 1977).

There are limits to the articulation of the traditional KT models, as our data demonstrate. The case studies presented here, set within an explicit historical context, demonstrate the role of politics in the use of knowledge. These findings support a more critical approach to the literature, emphasising the need for robust analysis

of how research and policy interact and the importance of multiple influences and factors in evidence ‘informing’ policy (Oliver et al, 2014).

Why does this matter for today? This historical case study has traced a government department’s emerging relationship with a group of academics, illustrating the increasing number of KT techniques and relationships developing over time. It has demonstrated the multiple strategies deployed by both sides in gaining influence and making policy. It illustrates how certain strategies, such as the secondment of academics to Whitehall, helped bolster the brokerage aptitude of academia. It has established that the special relationship between EAO and York economists was a key factor in smoothing the translation of economics into policy-making. The presence of economists within the DHSS improved this translation further by keeping academics informed of the Department’s demands and needs. This research provides findings, especially regarding KT strategies and relationships, and mobilises categories which can be helpful in reviewing KT relationships in other contexts – policy or geographical – and helping researchers and policy-makers to reflect on their own transfer methods and issues. It also stresses the need for looking beyond organisations and individuals as different ‘subjects’ with distinct characteristics: instead, we emphasised through our research how KT strategies and relationships are mobilised interchangeably by organisations and individuals, both being capable of agency. This case and similar ones could be further developed by drawing on the co-productionist knowledge transfer literature (Davies et al, 2005; Denis et al, 2003; Wehrens, 2014), especially to analyse instances where non-researchers were directly involved in the conduct of research, rather than simply funding or allowing access to research sites (Denis and Lomas, 2003).

What this case also does is to illuminate other, often sidelined, uses of expert knowledge in government, notably its politics (Boswell, 2009; Hawkins and Parkhurst, 2016; Parkhurst, 2016). It demonstrates how economics was politically articulated to help legitimise and substantiate the Government’s political goals, for example on the introduction of GP fundholding and QALYs. This case emphasises that the use of expert knowledge is not objective or value-free. Decisions based on economics also had an impact on other actors in this policy community, for example medical professionals, who found themselves competing for the attention of policy-makers over politically sensitive issues such as the use of QALYs to determine resource allocation. This paper has presented a multi-faceted picture of KT, building on a rich array of primary data from interviews and archive documents. This historical analysis of KT in health policy-making allows us to examine how these strategies were established and evolved, and thus to reflect on their aims and interests. It adds to the theoretical KT literature by demonstrating the weakness of traditional models that do not accommodate chronological or political factors. We thus emphasise the need for further historical and contemporary case studies to explore the origins of overt KT strategies and to deepen investigation of the genealogy of contemporary dominant discourses such as health economics.

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## Notes

<sup>1</sup> The SHHD was the Health Department in charge of Scottish affairs, attached to the Scottish Office until devolution in 1999.

<sup>2</sup> A list of all CHE discussion papers since 1984 is available here: <https://www.york.ac.uk/che/publications/in-house/archive/>

<sup>3</sup> The Health Economics Research Group was created at Brunel by Martin Buxton in 1981. Buxton's relationship with the DH was close, delivering the first commissioned economic evaluation on heart transplants in 1981.

<sup>4</sup> The new name of the Social Science Research Council from 1981.

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