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Organisation and Policy for Research and Development:
the Health Department for England and Wales

1961 to 1986

Stephen Michael Davies

Thesis submitted in accordance with the requirements for the degree of

Doctor of Philosophy

November 2017

LONDON SCHOOL OF HYGIENE & TROPICAL MEDICINE,
UNIVERSITY OF LONDON

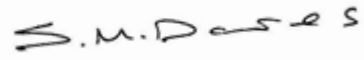
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No funding received

I, Stephen Michael Davies, confirm that the work presented in this thesis is my own. Where information has been derived from other sources, I confirm that this has been indicated in the thesis.

A handwritten signature in black ink that reads "S.M. Davies". The signature is written in a cursive style with some capitalization and is centered within a light gray rectangular box.

November 2017

Abstract

This thesis is a history of the research and development (R&D) programme of the health department for England and Wales, 1961 to 1986. It is a study of the development of the British 'health research state', showing how the department's programme was shaped not just by health policy but also by science policy; non-government actors; and the requirement for co-existence with the Medical Research Council (MRC).

A longitudinal analysis shows that the departmental R&D budget underwent rapid growth from a near zero-base in 1961, rising to a real-terms peak in 1976. Growth rates during this initial period outstripped those for total civil R&D. After 1976, the departmental R&D budget began to decline when adjusted for inflation, with a step decrease in 1981. This pattern of meteoric rise followed by decline can be attributed in part to the 'Rothschild reforms' in national science policy and their subsequent reversal - an occurrence unique to the health domain. These events, which related to biomedical research only, were overlain onto a longer-term rise and reversal in health and personal social services research (HPSSR), which had separate, earlier origins and differing drivers. The nature of the different streams of research and their governing dynamics are elucidated.

Evidence is drawn from interviews, archives, official publications and secondary sources. An analytical framework draws on political, institutional and social epistemology theory to consider power and interest in the health research state, organisational responses, and governing assumptions about research utilisation. For biomedical research, structural interests and the power of the medical profession are shown to be central to the course of events. HPSSR was caught up in the resulting turbulence, but not to the extent of complete derailment and the Department became an important patron of HPSSR during this period.

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Glossary of Abbreviations

ACMC	Advisory Council for Medical Computing
ACME	Advisory Council/Committee for NHS Management Efficiency
ARC	Agriculture Research Council
B&E	Building and engineering
BMR	Biomedical research
BRADU	Biomechanical Research and Development Unit
CAG	Comptroller and Auditor General
CMO	Chief Medical Officer
CMS	Computers and Management Services Division
CO	Cabinet Office
CPDB	Computer Policy and Development Branch
CPRS	Central Policy Review Staff
C&R	Computers and Research Division
CRB	Clinical Research Board (MRC)
CS	Chief Scientist
CSAG	Chief Scientist's Advisory Group
CSD	Civil Service Department
CSP	Council for Scientific Policy
CSRC	Chief Scientist's Research Committee
DCS	Deputy Chief Scientist
DES	Department of Education and Science
DH	Department of Health
DHSS	Department of Health and Social Security
DSIR	Department for Scientific and Industrial Research
EC	Executive Committee
ECP	NHS Experimental Computer Programme
EAO	Economic Adviser's Office
ESRC	Economic and Social Research Council

HMIC	Health Management Information Consortium
HMC	Hospital Management Committee
HPSSR	Health and Personal Social Services Research
HS	Hospital Services
HSR	Health Services Research
HSRB	Health Services Research Board (DHSS)
HSRC	Health Services Research Committee (MRC)
HSRP	Health Services Research Panel (MRC)
LA	Local Authority
LORS	Locally Organised Research Scheme
MAFF	Ministry of Agriculture, Fisheries and Food
MH	Ministry of Health
MOH	Medical Officer of Health
MRC	Medical Research Council
MS	Management Services Division
MSS	Ministry of Social Security
NCB	National Coal Board
NHS	National Health Service
NIHR	National Institute for Health Research
NPHT	Nuffield Provincial Hospitals Trust
OCS	Office of the Chief Scientist
O&M	Organisation and Methods
OR	Operational Research
ORS	Operational Research Services
ORU	Operational Research Unit
PAC	Public Accounts Committee (Committee of Public Accounts)
PAR	Programme Analysis and Review planning/programming/budgeting
PESC	Public Expenditure Survey Committee
PHLS	Public Health Laboratory Service
PMR	Panel for Medical Research
PPBS	Planning-programming-budgeting system
PRD	Planning and Research and Development Division

PS	Permanent Secretary
PSSRG	Personal Social Services Research Group (DHSS)
R&D	Research and Development
R&DC	Research and Development Committee
RAWP	Resource Allocation Working Party
RCP	Royal College of Physicians
RHA	Regional Health Authority
RHB	Regional Hospital Board
RLG	Research Liaison Group
RMD	Research Management Division
RPI	Retail Price Index
SDO	NHS/NIHR Service Delivery and Organisation
SGC	Small Grants Committee
SHHD	Scottish Home and Health Department
S&R	Statistics and Research Division
SSR	Social Security Research
SSRC	Social Science Research Council
SSRU	Social Science Research Unit
UK	United Kingdom of Great Britain and Northern Ireland
WO	Welsh Office

Preface

The interpretation of historical events is influenced by the starting place of the investigator, who brings to any subject a set of previously formed assumptions and prejudices. It may, therefore, be helpful if I briefly explain my interest in the subject of this thesis. In 2005, I became director of one of the National Health Service research and development (R&D) programmes.¹ I was appointed to this position from a background in health care management, not from research as would have been more conventional. As an outsider, coming new to the world of research commissioning, I was struck by the way in which this activity was bound by certain conventions and doctrines. Some of these, such as the rituals of peer review, were in no way unique to health-related research. Others, such as the doctrine of ‘needs-led, science added’, together with the elaborate organisational procedures that accompanied this, appeared more peculiar to the NHS R&D programme.

As somebody whose first academic training was in history, I became curious about the origins of this distinctive world. This curiosity was fuelled by events during my term of office (2005 to 2008), which happened to coincide with a spell of disturbance to the British system for publicly-funded health research. The first signs of this were the publication, in 2005, by the Department of Health of *Best Research for Best Health*, a ‘new national health research strategy’. This positioned the Department and the NHS as key players in delivering the government’s science and innovation strategy. The twin goals of health and wealth would be pursued through new organisational arrangements, creating ‘a virtual body’ within the Department of Health, to be known as the National Institute for Health Research (NIHR). In the Department’s version of history, the NHS R&D strategy of 1991 is the foundation event. Even at the time of its publication, this strategy was claimed as ‘the first stage

1. The Service Delivery and Organisation programme (SDO), which became NIHR-SDO in 2006.

in the creation of an R&D programme and infrastructure in the NHS'.¹ The 2005 strategy reinforced this creation myth. We are told that before 1991 'research in the NHS was conducted in a piecemeal fashion with no strategy or clear leadership'.² In the official narrative, a procession of incremental policy initiatives then follows, with the creation of NIHR as their apotheosis. This is Whig history, in which the situation before 1991 is largely ignored, other than to present it as primordial chaos.

Best Research for Best Health was followed in 2006 by a review of health research funding, commissioned by the Treasury and chaired by Sir David Cooksey, industrialist and venture-capitalist.³ Cooksey paid more attention to history than the Department. In his report, events long pre-dating the NHS R&D Strategy are invoked to explain barriers to the translation of research into improved health care, which are said to be peculiar to the UK. The 'Haldane Principle', originating in the aftermath of the First World War, is said to have 'largely defined how research has been supported' and is described as a 'cultural barrier' to the translation of research into practice. The 'Rothschild Report' of 1971 is portrayed as a reform attempt that failed because the Department of Health 'did not have the expertise or resources it now has to play the demanding role of informed customer of health research'.⁴ Events dating back many decades are thus ascribed continuing relevance in the twenty-first century. This pointed towards the existence of a longer and richer back-story to the NHS R&D strategy than the Department's version of history acknowledged.

I referred to some of these historical events in an article published soon after I left office.⁵ I later felt that this was somewhat superficial and incubated an ambition to undertake a more complete and rigorous investigation into the history of the Department's R&D programme. This thesis is the fulfilment of that ambition. What I encountered in the sources was a much richer and more dramatic history than I

1. Department of Health. *Research for Health. A Research and Development Strategy for the NHS* (London: DHSS, 1991).

2. Department of Health. *Best Research for Best Health. A New National Health Research Strategy* (London: DHSS, 2005), 38.

3. David Cooksey, *A Review of UK Health Research Funding* (London: HMSO, 2006).

4. *Ibid.* 36.

5. Stephen M. Davies, "Setting the research agenda for health services management: who decides?" *Evidence and Policy* 6, no.1 (2010): 103-113.

anticipated. It is a story that is relevant to some major themes in contemporary history. The growth of the state and the moving frontier between state and civil society is evident. The struggle for power and resources between interest groups within the state apparatus figures large. The influence of medical elites in the health research state speaks to the idea of the professionalised state and to wider themes of expertise, power and authority. Competing ideologies about science policy and the governance of publicly-funded science run like fault lines through the history, as do different models of knowledge production and utilisation. The growing complexity of health care systems, and the contribution of R&D in shaping the response of the state to this phenomenon, emerges as a further theme. More prosaically, the history also speaks to the challenge of implementing strategic change in public administration.

Although these themes remain pertinent today, I have sought to avoid the interpretation of past events through the lens of current issues. However, tension on the frontier between the Department of Health and the research councils will probably reoccur at some future date. An understanding of the past may be of some value if, and when, it does.

1. Introduction

Science, and the possibilities for society which it opens up, is the great growing point of our civilisation. In the past fourteen years since the war scientific knowledge and its application have advanced on every front, and the speed of advance is yearly increasing. With science today the possibilities are almost infinite: it is no longer true to say that "the sky is the limit".¹

As the 1960s dawned, British society was suffused with optimism about the potential contribution of science and technology to society. The belief that science should be planned, rather than led by curiosity, was one aspect of a wider 'planning fervour'.² 'Science policy', by which governments seek to steer science towards social goals, was fashionable. Between the general elections of 1959 and 1964, science and technology acquired an unprecedented prominence in British politics. Conservative Prime Minister Harold Macmillan appointed a Minister for Science and Technology in 1959. Promises to mobilise science for the modernisation of society helped Harold Wilson win the leadership of the Labour Party and the 1964 election. The apparatus of the state for publicly-funded research and development (R&D) was overhauled by both parties and spending grew.³ Science and technology were so salient that the period between 1959 and the early 1970s has been dubbed 'the technocratic moment' in British history.⁴ The state was favourably positioned to play an interventionist role, because science and technology were substantially nationalised activities. Government was a major funder of R&D through the research councils, the Department for Scientific and Industrial Research (DSIR), the National Research Development Corporation, civil and service government departments and the University Grants Committee. Government departments and nationalised industries were also significant providers of R&D through in-house research

-
1. Baron Taylor of Harlow (Stephen Taylor) opening a House of Lords debate on 'Science in Civil Life', 9 December 1959, HL Deb vol. 220 c177
 2. Glen O'Hara, *From Dreams to Disillusionment. Economic and Social Planning in 1960s Britain* (Basingstoke: Palgrave Macmillan, 2007).
 3. Norman J. Vig, *Science and Technology in British Politics* (Oxford: Pergamon Press, 1968).
 4. David Edgerton, *Warfare State* (Cambridge: Cambridge University Press, 2006).

establishments. The ‘Gibbs-Zuckerman’ report of 1961 identifies 270 of such establishments, employing 10,270 qualified scientists and engineers. Government R&D was still defence-dominated, employing 70 percent of this workforce, although this proportion began to fall after 1960 as resources were diverted towards civil purposes. A further 6,700 scientists were employed through the research councils.¹

Amongst the civil departments, the Ministry of Health (MH) is conspicuous by its near absence from Gibbs-Zuckerman. No research establishments are itemised in the report for the Ministry which, in truth, is barely mentioned at all. Its research interests are given as relating solely to ‘public health’ and the only in-house capacity listed is a small ‘organisation and methods’ team. Responsibility for ‘curative and preventive’ health research is assigned to the Medical Research Council (MRC). The report mentions that the Ministry of Health is responsible for ‘development’ but goes on to add: ‘commercial firms and the medical profession are also much concerned with these activities, on which the MRC may be called to advise’.² This chapter begins with a quotation from Lord Taylor, a doctor turned politician, who saw great promise in the new scientific field of ‘health promotion’. Through the development of this field, he anticipated, science would speak to policy. But Taylor made no mention of any role for the Ministry of Health.

The science of health promotion is only just beginning...I must say that it is a pleasure to note that the work of the Medical Research Council in this field is a growing point, which I hope the Minister for Science will watch and fertilise, tend and stimulate.³

The Ministry’s low profile in R&D was the mirror image of the position occupied by the MRC, which claimed a mandate for the full spectrum of research related to human health.⁴ The Council’s goal, since its foundation in 1920, had been control over all aspects of medical research in the United Kingdom. Under the new circumstances created by the establishment of the NHS, the respective responsibilities of Ministry and Council for clinical research had been re-visited by a

1. Office of the Minister for Science, *The Management and Control of Research and Development* (London: HMSO, 1961), 20.

2. *Ibid.* 15

3. HL Deb. vol.220 c.180

4. Cmd. 8876, *Report of the Medical Research Council for the year 1951-52*. Committee of Privy Council for Medical Research (London: HMSO, 1953), 5.

joint working party, which reported in 1953.¹ The report of this working party accepted, without qualification, the hegemonic claims of the MRC. Consequently, the Ministry transferred control of the handful of clinical research units based in the NHS, together with funding, to the Council in 1954. Not only was the Ministry lacking in in-house research capacity in 1961, it had also ceded the field of clinical research to the MRC.

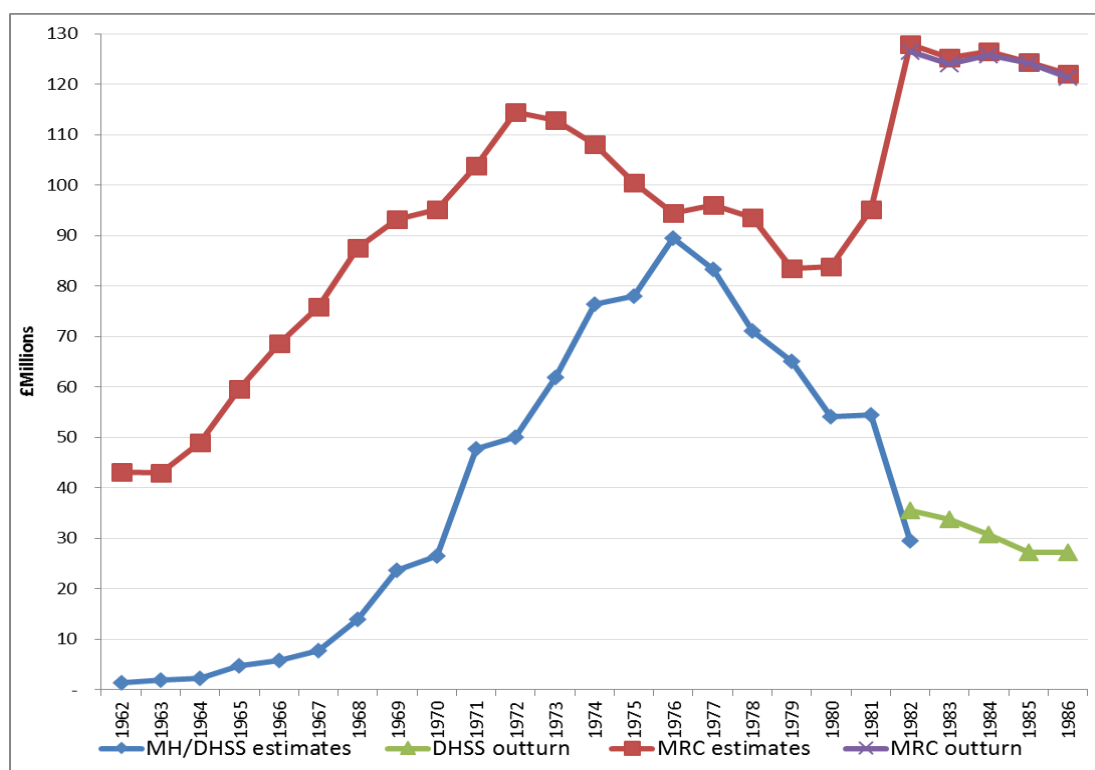
During the decade and a half that followed, this position was transformed. The health department re-positioned itself, becoming a major player in the world of government R&D. By 1973, the Department of Health and Social Security (DHSS) held a budget of £13.3 million for R&D. Growth in the DHSS R&D budget had been explosive, outstripping average growth rates for all civil departments. Consequently, the Department's share of the publicly-funded civil R&D budget grew from 0.13 percent in 1961/2 to 3.8 percent in 1972/3. Further growth followed as funds for the commissioning of biomedical research were transferred from the MRC under the 'Rothschild reforms', an initiative of national science policy. By 1976, the R&D budget of the Department was at its peak and approaching that of the MRC. Thereafter it began to fall after allowing for inflation. The MRC remained unreconciled to the Rothschild reforms and between 1977 and 1980 campaigned for the return of the funds transferred. This campaign eventually succeeded, and the Department's entire budget for biomedical research was returned to the Council in 1981. Thereafter, the departmental R&D budget entered a period of slow but steady real terms decline.

The picture over a quarter of a century thus appears as one of a meteoric ascent followed by steady decline. This becomes even more evident when the budget data are corrected for inflation (chart 1.1). The start year, 1961, represents a baseline when R&D activity at the Ministry of Health was *de minimis*. This was also when the Ministry took its first steps to build organisational capacity for R&D. The end year, 1986, has been chosen because it saw a significant reorganisation in the Department's R&D apparatus, involving a reduction in capacity and in the status of the Chief Scientist. Beyond this point, events become more of a prelude to the 1988

1. Medical Research Council and Ministry of Health and Department of Health for Scotland. *Clinical Research in Relation to the National Health Service* (London: HMSO, 1953). Known as 'The Cohen Report' after the working party Chairman, Sir Henry Cohen.

report of the House of Lords' Select Committee on Science and Technology, which was highly critical of the Department's R&D policy.¹ The politics of this Committee, and its influence over the NHS R&D Strategy of 1991, are substantial topics in themselves and ones for which archival records are not yet available, reinforcing the decision to end this study in 1986.

Chart 1.1 R&D Budgets (constant price base): Ministry of Health/Department of Health and Social Security and the Medical Research Council 1962 to 1986.



Sources: Supply Estimates 1961/62 to 1981/82; Cabinet Office Annual Reviews of Government Funded R&D 1981/82 onwards. See appendix A for details of sources and methodology. Note: Years are financial years ending 31 March, e.g. 1962 is 1st April 1961 to 31st March 1962. Adjusted to constant 1986 prices using retail price index.

Aims and structure

The aim of this study is to produce a historical analysis of organisation and policy that accounts for the beginnings, rise and subsequent decline of the Department of Health's R&D programme between 1961 and 1986, including consideration of the pre-history of the programme in the 1950s. No longer-duration account of the

1. House of Lords. *Priorities in Medical Research. 3rd Report of the House of Lords Select Committee on Science and Technology 1987-88 Session* (London: HMSO, 1988).

programme that is based on primary research has previously been published. The objective is to fill this gap in the literature.

The thesis is structured as follows. It begins with a literature review (chapter 2) before moving on to describe methodology and set out an analytical framework with three themes (chapter 3). A longitudinal quantitative analysis of the Department's R&D allocations for the period 1961 to 1986 then follows (chapter 4). This exercise establishes the scale and scope of the programme and supports the development of periodisation. It also provides some preliminary characterisation through disaggregation of funding streams.

Thereafter the structure is broadly chronological. A chapter on the pre-history of the programme and the context from which it emerged (chapter 5) examines the period up to 1965. This is followed by a chapter on organisation before the implementation of the Rothschild reforms, which begins in 1961 and ends in 1973 (chapter 6). There is then an interlude in the chronology for a further, qualitative exploration of the main streams of research (chapter 7). The intention here is to more fully characterise the programme, building on the statistical analysis in chapter 4.

The next two chapters return to the chronology, each examining relatively short periods in some detail. The first looks at the implementation of the Rothschild reforms at the DHSS between 1971 and 1973 (chapter 8). This is followed by an investigation of the partial reversal of these reforms between 1978 and 1981, ending with the return of biomedical research funds (chapter 9). Events between these two critical junctures, from 1973 to 1978, are outlined briefly at the start of the chapter but not revisited in any detail. This approach avoids duplication with the work of Maurice Kogan and colleagues and is justified further in the literature review and these two chapters.

The final chronological chapter looks at the programme between 1982 and 1986 (chapter 10). The 1980s have been largely passed over as a sterile era, overshadowed by the damning critique of the Select Committee at the end of the decade. This chapter casts some light on this neglected period and finds continuity, overshadowed by shrinking funding and an unfavourable political climate. It ends with yet another reorganisation of the research management function.

Two chapters then follow by way of conclusion. The first takes an overarching view on the mechanisms used by the department to make research useful and to promote its use (chapter 11). The last chapter offers an interpretation of the whole quarter century, structured within the three analytical themes (chapter 12).

Terminology

There are two areas where terminology might cause confusion. Potential sources of confusion, and the conventions used in mitigation, are identified here.

Government Departments. The Ministry of Health (MH) merged with the Ministry of Social Security to create the Department of Health and Social Security (DHSS) in 1968. In 1988 there was de-merger, from which the Department of Health (DH) emerged. ‘The Ministry’ is used when dealing with events before 1968. ‘The Department’ is used when dealing with events thereafter and for any discussion that straddles 1968. ‘The departmental programme’ refers to the R&D programme of the MH/DHSS. R&D policy was devolved to the Scottish Home and Health Department (SHHD) and, to a lesser extent, to the Welsh Office (WO). This thesis is concerned with policy for England and Wales, but there are some places where a UK-wide perspective is needed. So, for example, in managing biomedical research commissioning the DHSS acted as the lead for all the health departments because the MRC was, and remains, a UK-wide body. In this context, ‘the health departments’ means not just the DHSS but also SHHD and WO.

Research and Development. There is no catch-all description for the type of research funded by the Department between 1961 and 1985. The closest term in use today would be health services research (HSR). However, this excludes clinical research, supplies and equipment research and development, building and engineering research and development and social security research – all of which were elements of the departmental programme during this period. Until about 1970, the Department used the term ‘health and welfare research’ to describe the scope of its interests. Confusingly, this term was used in two ways. Sometimes it was used to describe research into all aspects of public health and the NHS. On other occasions, it was used in the much narrower sense of research into the ‘health and welfare’ services provided by local authorities before 1974. After about 1970, the Department settled on the term ‘health and personal social services research’ (HPSSR) to

describe its mainstream interests. However, this still excluded social security research, biomedical research including clinical research, and some other specialist R&D. When, in the late 1970s, the Department contemplated a larger role for the research councils, distinctions were made between HSR and social research, following the demarcation between MRC and Social Science Research Council (SSRC). There is, thus, no all-encompassing descriptor for the full spectrum of departmental interests. The convention followed in this thesis is to use the terms most applicable to the specific context. This approach is sometimes rather cumbersome and requires occasional additional explanation. Its merit is that it avoids any inference of a homogeneity which never existed

2. Literature Review

The conditions and methods of health-related research have changed beyond recognition since the conception of the National Insurance Fund in Edwardian days. By contrast, the basic questions and tensions regarding the optimal support of such research have proved remarkably timeless. They include the balance between the control and freedom of researchers; between competing scientific fields; between the influence of scientists, policy makers and patients; and between healthcare providers' role as hosts of research and efficient players in the market.¹

This chapter presents a review of the published literature relevant to the history of the departmental R&D programme. It begins with writing that is directly concerned with the Department's organisation and policy for research and development over a longer duration, covering as a minimum the whole of the period between 1961 and 1986. This is historical writing, in that its primary concern is to record and interpret the past, but it is also mostly writing by participants, rather than historians. The review then turns to retrospective writing, dealing with shorter periods of up to a decade or so. This is even more dominated by participants. Proximity to the events described means that some of this material might equally be treated as primary sources. However, the texts discussed all include some retrospective interpretation and so are included in this review.

Having considered the literature that deals with the programme directly, the review then moves on to writing that deals with context. The treatment (or otherwise) of the R&D programme in historical writing about the health department, the NHS and the research councils is examined. The scope is then further widened by reviewing histories of health, science and technology policy. The powers available to health ministers have, since 1919, included those of undertaking and commissioning research. We might, therefore, reasonably expect to encounter health-related research as an aspect of histories of health policy. Health is only one of a number of civil

1. Miriam Shergold and Jonathan Grant, "Freedom and need: the evolution of public strategy for biomedical and health research in England," *Health Research Policy and Systems* 6, no.2 (2008).

domains in which government funds research and British governments have sought to pursue cross-cutting science and technology policy since the late 1950s. It follows that we might also expect this topic to appear as an aspect of historical writing about science and technology policy. The chapter considers how far both expectations are met, before concluding with a discussion of some common themes and gaps in the literature.

Organisation and policy for research and development

Historical writing - longer duration

A structured database search identified only one text directly addressing the history of organisation and policy for publicly-funded health research over a long duration, extending either side of the study period. This article, by Shergold and Grant, originated in a consultancy assignment by the Department of Health in the period immediately prior to the launch of *Best Research for Best Health*.¹ The authors' perspective is that of economically-rationalising science policy, which seeks to optimise returns from the investment of public monies in research. The history is presented as a quest for organisational arrangements and policies that can achieve this objective in the health domain. The authors observe that certain policy issues have proved strikingly persistent over the long period that the article covers, which is nearly a century. They do not, however, go on to offer much by way of possible explanations for this persistence, beyond the presence of 'intrinsic challenges'.

The article is ostensibly concerned with all health-related research, but discussion is focused almost entirely on biomedical research. Furthermore, for the period between the founding of the NHS in 1946 and 1988, the article focuses almost exclusively on to the Rothschild reforms and their subsequent reversal. The authors acknowledge that the Ministry of Health 'stepped in to fill the gap' when its research needs were not met by the MRC during the 1960s, but do not go on to discuss what this meant in practice. The biomedical focus also limits the discussion of science policy beyond Rothschild. Reorganisation of the research councils following the Trend Report of 1964 is dealt with in one sentence and the implications for the relationship between the MRC and the Ministry of Health are not considered. Key events in the development of social science research in the UK, such as the Heyworth

1. Professor Jonathan Grant – private communication.

Committee Report and the creation of the Social Science Research Council (SSRC) in 1965, are not discussed.¹

The failure of the Rothschild reforms in the health domain is attributed to the fact that ‘departmental structures were insufficiently robust to allow authoritative decision-making within the new system’. This verdict is based on biomedical research and the article does not consider the adequacy of arrangements for commissioning other types of research. As a backdrop to the 1988 Lords Select Committee Report, we are told that the Department ‘focused on health services research and public health research with the aim of providing evidence for government policy-making’. The origins of this programme, it is suggested, lay in a 1979 government review of the workings of Rothschild. This led to an agreement to return biomedical research funds to the MRC and, in a re-demarcation exercise, ‘departmental funds for health and social security research were put under the direct control of the Chief Scientist’. The narrative here is not entirely clear, but the authors appear to argue that a programme of health services research, directed towards the policy needs of the Department, emerged in the 1980s as a response to the failure of the Rothschild reforms in relation to biomedical research.

In 2013, Walter W. Holland published his ‘personal account of the development of health services research’(HSR).² Holland (b. 1929) became director of the Department of Clinical Epidemiology and Social Medicine at St Thomas’s Medical School in 1964. Within this Department, he established a Social Medicine and Health Services Research Unit, which was the largest single recipient of departmental R&D funding by 1970. The output from this unit was substantial and established his reputation as a leading figure in British epidemiology and health services research.³ He was one of two special advisers to the House of Lords Select Committee in 1988. The chronology of his career has coincided closely with that of the departmental programme, making him an important source and commentator.

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1. Stuart S. Blume, “Social Science in Whitehall: Two Analytical Perspectives,” in *Social Science Research and Government*, ed. Martin Bulmer (Cambridge: Cambridge University Press, 1987), 77-93.
 2. Walter W. Holland, *Improving Health Services* (Cheltenham: Edward Elgar, 2013).
 3. Jeanne Daly, *Evidence-based Medicine and the Search for a Science of Clinical Care* (Berkeley: University of California Press/Millbank Memorial Fund, 2005), 150-152.

Holland's book may appear at first sight to cover much of the same ground as this thesis. However, his focus is the development of HSR in the UK, rather than the departmental programme. Sections on the history of the departmental organisation, which include original information from reminiscence and personal papers, are included principally to serve this theme. Holland strongly emphasises the HSR element of the programme, to the extent that the reader might assume that this was totality of the departmental programme. Other writing indicates that the range of the Department was broader than this, encompassing fields as diverse as social security, computing, equipment and building research.

Like Shergold and Grant, Holland begins his historical review with the National Insurance Act of 1911. For the period 1962 to 1988 he draws on personal involvement. He illustrates the development of epidemiology and social medicine in the UK through examples drawn principally from the work of his unit at St Thomas's. Elsewhere, Holland has described the late 1960s and early 1970s as a period when there was abundant funding, minimal bureaucracy and enlightened leadership at the Department.¹ A sense of this era as a 'golden age' is equally evident in his book, yet he does not really explain why or exactly when this ended. Holland attributes considerable weight to individual agency in explaining the early success of the programme. Various individuals are identified as 'pioneers of health services research', including the first Chief Scientist, Richard Cohen.² In contrast, later Chief Scientists are portrayed as lacking in the vision and values that animated the pioneers. The implication is that individual agency was as instrumental in the decline of the programme as it was in the golden age.

The two texts discussed so far are explicitly historical and were written at some distance in time from the events described. A further group of texts includes retrospective writing about the programme written soon after the events described and by participants.

1. Christopher Cook, "Oral history - Walter Holland," *Journal of Public Health* 26, no. 2, (2004): 121-129.

2. Holland, *Improving Health Services*, 62-66.

Retrospective writing – shorter duration

The writings of Dr Richard ('Dick') Cohen (1907-1998) provide the most cogent first-hand account and insider interpretation of the origins, objectives and approach of the early departmental programme. Cohen was the medical lead for the programme, reporting to the Chief Medical Officer (CMO), George Godber (1908-2009). He joined the Department in 1962, having previously served as Second Secretary at the MRC. At the very end of his career, Cohen became the first Chief Scientist at the DHSS for a period of six months, ending in March 1973. In interpreting his writing, it is essential to consider its timing in relation to this last appointment. In the early 1970s, the Nuffield Provincial Hospitals Trust published two catalogues of DHSS research under the title *Portfolio for Health*. Both volumes include introductory essays by Cohen. That in volume 1, published in 1971, gives an account of the emergence of the programme and its subsequent development in the 1960s.¹ Cohen traces demand for a departmental research programme back to the Guillebaud inquiry into the costs of the NHS (1956), which was critical of the Ministry of Health's shortcomings in analytical capacity. He locates the beginning of the research organisation at the Department in 1961 and stresses its small scale and piecemeal nature at the outset. He uses a metaphor of 'converging streams' to describe the way in which originally divergent activities were brought together.

In contrast to the retrospective nature of this essay, Cohen's introduction to *Portfolio for Health 2* is forward-looking and 'heralds the more systematic and co-ordinated arrangements for R&D that are being evolved and their new working relationships within and outside the DHSS'. This essay is perhaps best seen as a source that captures the aspirations and organisational thinking of the Department at the moment of implementing new R&D arrangements. Cohen was, by this time, Chief Scientist and it can be assumed that his main priority was to set out the programme for this newly created office.²

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1. Richard H. L. Cohen, "The Department's Role in Research and Development," in *Portfolio for Health. The Role and Programme of the DHSS in Health Services Research*, ed. Gordon McLachlan (London: Oxford University Press, 1971), 1-21. Hereafter 'Portfolio 1'.
 2. Richard H. L. Cohen, "Introduction," in *Portfolio for Health 2. The Developing Programme of the DHSS in Health Services Research*, ed. Gordon McLachlan (London: Oxford University Press, 1973), xi-xvi. Hereafter 'Portfolio 2'.

In retirement, Cohen published an article that offers a more distanced, retrospective view. This focuses on the relationship between the MRC and the DHSS.¹ Having worked for both organisations at a senior level, this is subject matter for which Cohen is uniquely qualified. The article includes sections on programme origins, in which he stresses the broad-minded approach adopted, as expressed through a willingness to initiate or support ‘any sufficiently useful project or programme with a precise and practical relevance to the NHS’.

Cohen’s successor as Chief Scientist was Sir Douglas Black (1913-2002), who held office for four years until April 1977. In an article published soon after leaving office, Black draws a distinction between the Department’s failings in biomedical research commissioning and its pre-eminence as a patron of HPSSR.² He argues that engagement in the former proved a distraction from the latter. He also expresses deep scepticism about the attempt to integrate research into planning through the 1972/3 reorganisation of the DHSS. This scepticism is amplified in his memoirs, where a chapter entitled *Inside the Elephant* deals with his time as Chief Scientist.³ This gives a sense of how Black interacted with administrators to discharge a role for which, by his own admission, he lacked much conviction.

A further retrospective account of the origins of the departmental programme and its subsequent development under the Office of the Chief Scientist was published in 1978 by the Nuffield Provincial Hospitals Trust. This represented the views of six directors of DHSS-funded units.⁴ An essay by one of the directors, Thomas Whitehead of the Wolfson Research Laboratories, Birmingham, describes the weakness of the Chief Scientist’s position at the Department, which he describes as being ‘in complete opposition to Rothschild’s concepts’. However, he does not

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1. Richard H.L. Cohen “The DHSS and the MRC. The First Chief Scientist Looks Back,” in *Matters of Moment. Problems and Progress in Medical Care. Thirteenth Series Essays on Current Research*, ed. Gordon McLachlan (Oxford: Oxford University Press, 1981), 1-24.
 2. Douglas Black, "Functions of the Chief Scientist in the Department of Health and Social Security," *Journal of the Royal Society of Medicine*, 71, July 1978: 485-488.
 3. Douglas Black, *Recollections and Reflections* (London: The Memoir Club, 1987). Given Black’s dry humour, the chapter title can be taken as referring to both the DHSS offices at Elephant and Castle and the behaviour of the department.
 4. Gordon McLachlan, *Five Years After: A Review of Health Care Research Management after Rothschild: including an essay by Thomas P. Whitehead* (Oxford: Oxford University Press, 1978).

explain how this anomalous situation arose. Whitehead describes the next significant event after the implementation of Rothschild as being the ‘Kogan Report’ of 1975, which led to various changes in research management. The most significant of these was the strengthening of ‘research liaison groups’: a mechanism to increase the customer voice for R&D. The review ends on a pessimistic note, stating that ‘attempts to establish an adequate customer organisation appear to have failed’ and that ‘there is no Chief Scientist’s Organisation set up in the way the Rothschild Report suggested’.

The unpublished ‘Kogan Report’, to which Whitehead refers, was the work of Maurice Kogan (1930-2007) and Nancy Korman. Kogan had been a senior civil servant before becoming Professor of Government and Social Administration at Brunel University. Korman was embedded in the DHSS as his research assistant for the first phase of investigation, which ran from 1974 to 1979.¹ This involved an extensive study of the organisation supporting the Chief Scientist.² In a second phase, from 1980 to 1981, Kogan collaborated with Mary Henkel, a public policy researcher at Brunel who subsequently specialised in higher education. The focus in this later phase was the review of DHSS-funded research units instigated by the third Chief Scientist, Arthur Buller (b.1923).³ Data collection was extensive across both phases. The researchers attended large numbers of meetings as non-participant observers; interviewed over 200 informants; and reviewed numerous internal documents.⁴ Kogan and Henkel formally ended their engagement with the DHSS in April 1981, although they conducted some further interviews after this date. Subsequently, Kogan and Henkel synthesised the whole seven-year programme of investigation by the Brunel team into a summative book, which they frame as a case study in one government department, generalised into an analysis of the relationship between government and science.⁵

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1. Maurice Kogan and Mary Henkel, *Government and Research: the Rothschild Experiment in a Government Department* (London: Heinemann Educational, 1983), vii-viii.
 2. Maurice Kogan, Nancy Korman and Mary Henkel, *Government's Commissioning of Research: A Case Study* (Uxbridge: Brunel University, 1980).
 3. Mary Henkel and Maurice Kogan, *The DHSS Funded Research Units: the Process of Review* (Uxbridge: Brunel University, 1981).
 4. Kogan and Henkel, *Government and Research*, vii, 108-9.
 5. *Ibid.*

Kogan says that ‘from the beginning, it was agreed that we should eventually move from the role of consultants into the mode of independent researchers making our findings available to the wider scholarly public’.¹ He is not specific about when this transition occurred, but ‘the Kogan report’, which survives in the archives, was clearly a consultancy output.² Kogan’s advisory views can be discerned in his scholarly outputs, most conspicuously in his support for organisational structures, roles and process that promote interaction between policy-makers and researchers. The most notable examples in the context for this study are the ‘research liaison group’ (RLG) mechanism and ‘brokering’ roles for individuals within the DHSS research organisation. Such organisational innovations for ‘deliberative process’ became more fashionable in the early twenty-first century, being promoted by researchers and research commissioners alike as a means of increasing the traction of research outputs with decision-makers. This international trend was accompanied by the growth of academic interest in ‘knowledge transfer’ and by claims of a ‘new paradigm’ in research production and utilisation.³ The spread of such thinking prompted colleagues at Brunel to work with Kogan on an updated edition of the 1983 text, published in his penultimate year. The amended text differs from the first edition in two ways. It further develops the theoretical arguments about the relations between science and government; and it updates the history of the R&D programme from the Rothschild era to the present day.⁴ However, the new edition does not amend any of the empirical data collected for the original studies and includes no further information on the period between 1981 and 1988, other than to note that

1. Kogan and Henkel, *Government and Research*, vii.

2. MH 166/1321, *The Overall Organisation of the Chief Scientist’s Research Organisation, Note by M. Kogan and N. Korman*, July 1975. This must be the same document referred to by Shergold and Grant as ‘The Kogan Report’.

3. A Selwyn St. Leger and Joanna P Walsworth-Bell, *Change-promoting research for health services: a guide for resource managers, research and development commissioners and researchers* (Buckingham: Open University Press, 1999), 23-43. Jonathan Lomas, "Using 'linkage and exchange' to move research into policy at a Canadian foundation." *Health Affairs* 19, no.3 (2000): 236-240. Nutley et al., *Using Evidence. How Research can inform Public Services* (Bristol: The Policy Press, 2007).

4. Kogan, Maurice, Mary Henkel and Stephen Hanney. *Government and Research: Thirty Years of Evolution*. Dordrecht: Springer, 2006. The publisher’s text on the back cover is informative in setting the context from which the updated edition emerged.

biomedical funds were returned to the MRC at the start of this period.¹ The updated text thus adds little for present purposes.

The weight of the Kogan corpus, considering the sustained engagement with the Department that underpins it, means that a revisiting of the period 1974 to 1981 might add little new to what is already known about the history of the departmental programme. However, this body of work suffers from two significant limitations. First, it pays little attention to the history before 1974, which is laid out only briefly and with a very broad brush. The 1960s are characterised as a ‘golden age’ in government-science relations, when government was confident enough to ‘open itself up to relationships with potentially strong institutions and trust them to get on with their work’. This era was ended by a ‘surge of rationality’ in government, of which the Rothschild Report was one obvious manifestation.² Little attention is paid to events prior to 1974, including highly significant recent developments such as the re-organisation of the Department.³

The second limitation relates to the return of biomedical research funds to the MRC in 1981 – a significant partial reversal of the Rothschild reforms. Kogan and Henkel provide very little detail on circumstances between the demise in 1977 of the Panel on Medical Research (the body originally set up to oversee biomedical research commissioning) and the return of funds, announced in October 1980. As Kogan and Henkel remained formally engaged with the Department until 1 April 1981, it is surprising that their summative work does not cast more light on this aspect of the history. One possible explanation is that the researchers were, in this phase of engagement, focused on the process of unit review and paid comparatively little attention to developments in the MRC relationship.⁴

In view of these limitations, the decision was made to focus on two key transitional periods at either end of the period 1974 to 1978. The first, covering 1971 to 1973, deals with the response to, and implementation of, the Rothschild reforms at the DHSS (chapter 8). The second covers the return of funds to the MRC in the

1. Kogan et al., *Government and Research: Thirty Years of Evolution*, 192-193.

2. Kogan et al., *Government's Commissioning of Research*, 3.

3. Interviews with Nancy Korman, London, April 2015 and November 2016

4. Kogan and Henkel, *Government and Research*, viii.

context of wider developments under the third Chief Scientist (1978 to 1981), but without replicating the detailed study of the units review undertaken by the research team between 1979 and 1981(chapter 9). Both chapters begin with further discussion of the rationale for this approach.

Kogan et al. make clear distinctions between the commissioning of biomedical research and HPSSR. For biomedical research, they conclude that the DHSS was unable to find a way of commissioning from the MRC that convinced any of the participants that the processes involved were worth the effort. They argue that the Department was unable to overcome ‘the impermeability and authority of a Medical Research Council grounded in an internalist view of science and in the notion of indivisibility between basic and applied research’. The MRC’s defences were bolstered by its established nature and high self-esteem, underpinned by the standing of the medical profession. The Department was unable to ‘substantiate the connections between biomedical science and health services problems and practice’. In this situation, the MRC had no interest in making a success of the Rothschild arrangements.¹

In the case of HPSSR, the course of events was quite different and even less finalised at the time of writing. Kogan et al. argue that the Department had found an interactive way of connecting the research community with ‘policy customers’ through the RLG mechanism. They claim that Buller proposed a substantial reduction to the role of the RLGs after 1978, because he wanted to move to a more distanced customer-contractor relationship in which scientific quality was the prime criterion by which research was to be judged. The RLGs had no place in this scheme, other than to potentially dilute Buller’s desired focus on scientific merit. However, the RLGs survived into the late 1980s and this episode too appears unresolved in the summative text.

Kogan et al. dissect out the meaning of ‘the customer’ in the context of the DHSS/NHS relationship. They draw a distinction between Department as a primary customer, procuring research for its own purposes, and as a proxy customer procuring research of potential benefit to the field authorities of the NHS. They

1. Kogan and Henkel, *Government and Research*, 71.

illuminate the role of policy liaison officers as important brokers between internal customers and researchers.¹

The Kogan corpus remains the most substantial body of published research on the DHSS R&D programme in the 1970s, but it does not stand alone. Two researchers from the University of Leicester, Gordon and Meadows, also undertook an intensive study of the dissemination of DHSS-funded research, although copies appear to have been lodged only with Leicester and the British Library.² Professor Louis Moss also undertook a survey of internal views on research management, although this was never published.³ The Department did not sustain such openness to scrutiny into the 1980s.

There is little by way of historical writing on the 1980s. An overview of health research in the UK by Taylor and Teeling-Smith is mostly a description of current arrangements, rather than a retrospective piece.⁴ This was published between the ‘partial dismantling’ of the Rothschild reforms at the DHSS and the publication of *Priorities in Medical Research*; timing that allows some perspective on the former events, whilst not being overshadowed by the later criticism of the Select Committee. This differentiates it from later writing, which tends to view the programme through the lens of the committee’s critique.⁵ This is true of an article by Nick Black, who identifies three concerns as building throughout the decade.⁶ The first was the state of UK medical research in this period as public funding for science shrank in real terms. Science budget cuts were not unique to the UK, but were pursued with

1. Kogan and Henkel, *Government and Research*, 150-154.

2. M. D. Gordon and A. J. Meadows, *The Dissemination of Findings of DHSS-Funded Research* (University of Leicester, Primary Communications Research Centre), 1981. This is discussed further in chapter 11.

3. Moss (1915-2000) was a leading figure in the development of social surveys. The unpublished report can be found in BN 82/110.

4. David Taylor and George Teeling-Smith, “Health Services,” in *UK Science Policy. A Critical Review of Policies for Publicly Funded Research*, ed. Maurice Goldsmith (Harlow: Longman, 1984), 107-122.

5. Walter W. Holland and B. Fitzsimons, “Medical and health services research” in *Central Government Organisation and Policy for UK Science and Technology since 1982*, eds. Charlotte M. Cunningham, Robin Nicholson and Philip Gummert (Harlow: Longman, 1991).

6. Nick Black, “A national strategy for research and development: lessons from England,” *Annual Review of Public Health* 18 (1997): 485-505.

particular rigour as part of a wider programme of public expenditure reductions. A second concern was that 'the balance between science-push and service-pull had been lost' and that the research agenda had become too science-led. This was 'symptomatic of the failure of research funding bodies to respond to the needs of their principal customer, the NHS'. The third concern was that findings from research were not being implemented. Black argues that these three concerns played out beyond the research community, linking to the interests of other constituencies: political and professional concerns about variations in clinical practice; management concerns about health services cost and quality; and public challenges to medical knowledge. This alignment of interest pushed health services research up the policy agenda.

This analysis is more informed by the Select Committee report than by any examination of the historical evidence. As with other close-to-the-event writing by participants this text is as much advocacy as history. Writing in 1997, Black portrays the 1991 strategy as a liberating moment for health services research, but one already threatened by forces for counter-reformation. The battle lines are defined as those between progressive service-pull and reactionary science-push, with the latter firmly in the ascendant prior to 1988 and still controlling eighty percent of resources in 1995. The forces of 'service-pull' are an alliance of health services research, evaluative clinical research, epidemiology, and public health research. The forces of reaction are those of biomedical research.

There is little participant testimony from the 1980s. Sir Desmond Pond (1919-1986), who succeeded Buller as Chief Scientist, died within months of his retirement and left no testimony about his time at the Department. Pond's successor and the last Chief Scientist, Professor Francis O'Grady (1925-2015), similarly left no commentary, other than a letter defending the DHSS programme against the criticisms of the Lords Select Committee.¹ Holland describes Pond's spell as Chief Scientist (1982 to 1986) as 'much less controversial' than the term of his

1. Francis O'Grady. "Valediction - a personal view from Professor Francis O'Grady, Chief Scientist at the Department of Health 1986-1990," *Journal of Public Health Medicine* 14, no.3 (1992): 344-348.

predecessor, Arthur Buller, but has little else to say about this period, being more focused on the Select Committee report.¹

Organisational histories

The Department of Health

Any attempt to place the R&D programme within its broader organisational context is hampered by the absence of a general history of the Department of any substance. One short text does exist, authored by a senior civil servant.² R&D is not mentioned in this, despite the author having worked in R&D management during the 1970s. This omission is understandable given the brevity of the text and the frequent rotation of civil servants between roles. Many other aspects of health department activities are also omitted, and the primary focus is on the changing relationship between the NHS and the Department.

Kenneth Stowe (1927-2015) wrote about the programme and his views are of interest because, as will be shown, he was a key actor not just as DHSS Permanent Secretary in the 1980s but also, a decade earlier, during the implementation of Rothschild.³ After sketching out the scope of state support for health-related research, Stowe says that ‘tucked into this complex array of authorities, institutions, and resources is the frail specimen called Health Services Research, for which provision has been made in Department of Health budgets since the early 1950s’ (the last part of this statement is factually incorrect in terms of timing). In Stowe’s opinion, HSR ‘never seemed to develop into a significant force in the Department or in health care authorities or in the world of scientific research itself’. In analysing why this was so, he mentions the Rothschild reforms, which he describes as ‘a folly’ and ‘an appalling diversion of effort’. He is also critical of HSR, which he says, ‘often hardly merits the name science at all’ and of the assumption that research can be readily useful to policy-makers. His final verdict is damning: ‘I know of no strategic issue with which Ministers were concerned during my time as Permanent Secretary which was illuminated by the Health Services Research programme’. The

1. Holland, *Improving Health Services*, 84, 185-198.

2. Brian Rayner, *History of the Department of Health* (London: Department of Health, 1994).

3. Kenneth Stowe, *On Caring for the National Health* (London: Nuffield Provincial Hospitals Trust, 1988).

question that arises is whether Stowe's opinion was shaped through unsatisfactory experience with the programme, or whether these views were formed earlier in his career and contributed, at key junctures, to decisions that adversely affected the programme.

Sheard and Donaldson's history of the Chief Medical Officers touches briefly on the departmental research programme.¹ Their narrative ends with the creation of the post of Chief Scientist and associated committees in the early 1970s. After this, the discussion moves on apace to two major public health episodes in which research evidence played a significant role (AIDS and BSE). The sourcing of research in these episodes is not discussed. Godber, who presided over the 'golden age' as CMO, does not mention the R&D programme directly in his reflections on the NHS.² Elsewhere he states that the only source of funding for R&D when he took up office in 1960 was a discretionary fund available to the CMO. He comments that the sum in this fund, £5,000, was unchanged from that available to the first incumbent of his office, Sir John Simon (CMO 1855 to 1876).³

The dominant mode of R&D activity for the Department was the commissioning of extra-mural research. As noted, Health was an outlier among civil departments in that it was almost entirely lacking in-house capacity in 1961. For most of the study period, only glimpses of intra-mural R&D activity can be gained from published material. Visitors from the USA, writing in 1968, stress the extra-mural nature of the programme and mention only one internal researcher group, the Social Science Research Unit (SSRU).⁴ *Portfolio 1* includes a chapter on the Biomechanical Research and Development Unit (BRADU). Both volumes include chapters on the DHSS Operational Research Unit (ORU). Smee provides a systematic history of the Economic Adviser's Office (EAO) and Operational Research Service (ORS) from 1984 onwards. His book includes some outline information on the origins of these

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1. Sally Sheard and Liam J. Donaldson, *The Nation's Doctor: the Role of the Chief Medical Officer 1855-1998* (Abingdon: Radcliffe, 2006), chapter 6.
 2. George Godber, *The Health Service: Past, Present and Future* (London: Athlone Press, 1975).
 3. George Godber, "The Health Department and Research," *Journal of Public Health Medicine* 14, no. 3 (1992): 339-341
 4. Pearl Bierman et al. "Health Services Research in Great Britain," *The Milbank Memorial Fund Quarterly* 46, no. 1 (1968): 9-102.

two units, which were brought under combined management in 1982.¹ Staff included economists, OR specialists and statisticians, who are described as ‘analysts’ rather than ‘researchers’. This is indicative of how EAO/ORS was positioned as being quite distinct from the R&D programme. As a further indication of this separation, Smee makes very little reference to the R&D programme, which he describes as working to timescales too protracted to be of practical use to policy-makers.²

The Department’s relationship with HM Treasury was pivotal to all forms of investment. The focus in the literature is on efforts to persuade the Treasury that more investment was needed in service development, and especially in the renewal of the NHS estate. The signal event in the historiography on this aspect of NHS history is the Hospital Plan of 1962.³ This literature is not generally explicit about the connection between the case for investment in buildings and that for investment in R&D. An essay by Webster is one exception.⁴ The culture and mode of working of Treasury in the 1960s is illuminated by Heclo and Wildavsky’s classic study, which adopts the metaphor of ‘the Whitehall Village’ to capture the reliance on personal relationships between officials and shared culture.⁵

The National Health Service

In Webster’s official history of the NHS there is scarcely any mention of R&D. There is a sole reference to the establishment of a ‘Statistics and Research Unit’, which is bundled in with other ‘leadership initiatives’ in the late 1950s and 1960s.⁶ His political history is silent on this subject.⁷ Organisation and policy for R&D are

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1. Clive Smee, *Speaking Truth to Power. Two Decades of Analysis in the Department of Health* (Abingdon: Radcliffe, 2005).
 2. Ibid. 172, 213.
 3. David E. Allen, *Hospital Planning. The Development of the 1962 Hospital Plan* (Tunbridge Wells: Pitman Medical, 1979). John Mohan, *Planning, Markets and Hospitals* (London and New York: Routledge, 2002). O’Hara, *Dreams to Disillusionment*.
 4. Charles Webster, “Conservatives and Consensus: The Politics of the National Health Service, 1951-64,” in *The Politics of the Welfare State* eds. Ann Oakley and A. Susan Williams (London: UCL Press, 1994).
 5. Hugh Heclo and Aaron Wildavsky, *The Private Governance of Public Money* (London and Basingstoke: Macmillan, 1974).
 6. Charles Webster, *The Health Services since the War. Volume 2, Government and Health Care, The National Health Service 1958-1979* (London: The Stationery Office, 1996), 39.
 7. Charles Webster, *The National Health Service. A Political History* (Oxford: Oxford University Press, 1988).

absent from Rivett's 50th anniversary history of the NHS.¹ The supplementary website, which continues beyond 1998, includes a section on 'research strategy' but this is very brief and not entirely accurate.²

The original orientation of the programme was to provide knowledge of practical value to the NHS. This raises the question as to how a central government department might liaise with a multitude of local NHS authorities to ensure that the research procured is both relevant and applied in practice. As the Lords Select Committee noted: 'The DHSS...is not to be confused with the administration of the NHS, in spite of the intimacy of their relationship'.³ During the period covered by this thesis, the relationship between the centre and local health authorities was subject to major change, in the form of the 1974 reorganisation. Rudolf Klein has taken the long view on centre/NHS relations, arguing that the Department, has 'gradually but inexorably tightened its grip upon the service' over the decades, whilst professing attachment to principles of localism and devolution of power.⁴ This is a strategy for 'diffusion of blame' whilst achieving centralisation of control. Klein's focus, however, is service provision and it remains open to question whether his analysis can be applied to R&D.

Klein wrote an article in response to *Priorities in Medical Research* in which he seeks to identify the routes through which health-related research is applied.⁵ He distinguishes between the application of research to governance, service and practice policies. Governance policies are concerned with the organization and financing of health care, and so will be the province of national governments in centralised systems. Service policies are more concerned with resource allocation and service configuration. Practice policies relate to the actual delivery of care to the patient. This scheme can be linked to Kogan's distinction between the Department as a

1. Geoffrey Rivett, *From Cradle to Grave: Fifty Years of the NHS* (London, King's Fund, 1998).

2. [http://www.nhshistory.net/chapter_6.html#Health Service Policy](http://www.nhshistory.net/chapter_6.html#Health%20Service%20Policy) (accessed December 2016).

3. House of Lords, *Priorities in Medical Research*, para. 3.24.

4. Rudolf Klein. "The eternal triangle: sixty years of the centre-periphery relationship in the National Health Service," *Social Policy and Administration* 44, no.3 (2010): 285-304.

5. Rudolf Klein. "Research, policy and the National Health Service," *Journal of Health Politics, Policy and Law* 15, no.3 (1990): 501-523.

primary customer for policy research (i.e. research more weighted towards governance and service policies) and as a proxy customer for the NHS (more concerned with service and practice policies). These distinctions suggest that ‘the customer’ for publicly-funded health research should not be thought of as a single category and that different dynamics may be at play according to the precise identity of the customer.

The Research Councils

The MRC is the other principal institutional actor in the world of publicly-funded, health-related research. A published history exists only for the Council’s first half-century.¹ The author, Sir Arthur Landsborough Thomson (1890-1977) worked for the Council for nearly forty years and was Second Secretary from 1949 until 1957. Thomson was a consummate MRC insider and loyalist. His writing reveals the Council’s mind-set in the 1960s as one of supreme self-confidence, resting upon half a century of organisational continuity. Austoker and Bryder’s work offers more critical perspectives.² Austoker’s essay on Walter Morley Fletcher, first Secretary (1914 to 1933), illuminates the imperialistic style of the Council in its early decades as it sought control over all aspects of medical research in the UK.³

The Social Science Research Council (SSRC) was of secondary importance for the Department. The sole detailed account of this organisation’s history, by Nicol, deals mostly with the background to its long-delayed establishment and only covers the period to 1968.⁴ The health department is notable mainly by its absence in this text, which otherwise documents a range of interactions with other government departments and with the MRC on matters related to health. Nicol provides an

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1. Arthur Landsborough Thomson, *Half a Century of Medical Research. Vol. 1, Origins and Policy of the Medical Research Council (UK)* (London: HMSO, 1973). *Vol. 2, The Programme of the Medical Research Council (UK)*. (London: HMSO, 1975).
 2. Joan Austoker and Linda Bryder, *Historical Perspectives on the Role of the MRC* (Oxford: Oxford University Press, 1989). Linda Bryder, "The Medical Research Council and clinical trials methodologies before the 1940's: the failure to develop a 'scientific' approach," *Journal of the Royal Society of Medicine* 104 (2011): 335-343.
 3. Joan Austoker, "Walter Morley Fletcher and the origins of a basic biomedical research policy," in *Historical Perspectives on the Role of the MRC*, eds. Austoker and Bryder: 23-33.
 4. Alexandra Nicol, *The Social Sciences Arrive* (Swindon: Economic and Social Research Council, 2001).

overview of the obstacles placed in the way of the institutional development of the social sciences, in contrast to medical sciences. More recently, the Economic and Social Research Council (ESRC – as the SSRC became in 1982) published a short history to mark its fortieth anniversary in 2005.¹ This is a whistle-stop tour of historical highlights. Although it includes details of selected joint programmes it provides no insight into how relationships with the Department of Health were developed.

Welshman's detailed case study of transmitted deprivation research programme does achieve this, although the programme was rather exceptional given the close personal interest taken by the Secretary of State, Sir Keith Joseph.² Kogan and Henkel briefly discuss the Department's engagement with the SSRC, commenting on the uncertainty of its authority and the incomplete process of institutionalisation in this period. They contrast the situation of the SSRC with that of the MRC, arguing that there are few parallels in this period and that social sciences research 'challenges much more directly than medical sciences research simple enlightenment or instrumental models of the relationship between research and policy'.³

Non-government organisations

Two charitable foundations are prominent in the literature on the departmental programme: the Nuffield Provincial Hospitals Trust (NPHT) and the King Edward's Hospital Fund for London (the King's Fund). There is a highly relevant history of the NPHT by Gordon McLachlan, the charity's Secretary between 1956 and 1986. Holland names McLachlan as one of his pioneers of health services research and credits him with exceptional influence.⁴ Prochaska's history of the King's Fund also contains much that is relevant.⁵ The need for both charities to re-define their role after

1. <http://www.esrc.ac.uk/files/news-events-and-publications/publications/ssrc-and-esrc-the-first-forty-years/> (accessed December 2016)

2. John Welshman, *From Transmitted Deprivation to Social Exclusion* (Bristol: Policy Press, 2007).

3. Kogan and Henkel, *Government and Research*, 75.

4. Gordon McLachlan, *A History of the Nuffield Provincial Hospitals Trust 1940-1990* (London: Nuffield Provincial Hospitals Trust, 1992). Holland, *Improving Health Services*, 62-63.

5. Frank Prochaska, *Philanthropy and the Hospitals of London, The Kings Fund 1897-1990* (Oxford: Clarendon Press, 1992).

1948 is a major theme in these histories. Some writing on the non-government sector examines the ‘moving frontier’ between the state and civil society in the twentieth century.¹ More recently, historians have focused on non-government organisations as vehicles for mass participation and the mobilisation of expertise.² All of this has potential relevance to the emergence of the health research state. The challenge is to situate this specific topic within the specialist literature in a way that aids interpretation and adds to the literature.

Policy histories

Health policy

Research and development is largely ignored within histories of health policy. Ham mentions the role of the Department’s organisation for research only in passing and is equivocal about its contribution to policy-making.³ Klein characterises the period between 1960 and early 1970s as ‘the heyday of technocratic politics in the NHS’, characterised by rationality in government and faith in experts, techniques and organisational design.⁴ He mentions the setting up of an Advisory Committee on Management Efficiency in 1959 (as does Webster) and identifies economists as having established themselves as ‘keepers of the faith of efficiency’ by the 1970s. He does not otherwise refer to the growth of extra-mural research commissioning after 1962. For the period 1911 to 1965, Fox identifies the growth of medical research as a key factor in the development of a hospital-centric policy of ‘hierarchical regionalism’ but barely mentions policy for research.⁵

More broadly, literature on the science-policy relationship includes writing on specific health issues. Writing on networks illustrates how the emergence of scientific consensus can be as turbulent a process as that of policy formulation, and

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1. Geoffrey Finlayson, "A moving frontier: voluntarism and the state in British social welfare," *Twentieth Century British History* 1, no.2 (1990): 183-206. Frank Prochaska, *The Voluntary Impulse: Philanthropy in Modern Britain* (London, Faber, 1988).
 2. Matthew Hilton et al. *The Politics of Expertise. How NGOs Shaped Modern Britain* (Oxford: Oxford University Press, 2013).
 3. Christopher Ham, *Health Policy in Britain* (Basingstoke: Palgrave Macmillan, 2004),198.
 4. Rudolf Klein, *The New Politics of the NHS* (Abingdon: Radcliffe Publishing, 2006), 46-49.
 5. Daniel M. Fox, *Health Policies, Health Politics: the British and American Experience 1911-1965* (Princeton: Princeton University Press, 1986).

how the two processes can be entwined.¹ A related approach elucidates the contribution of a specific discipline or research tradition to policy development, whether through policy case studies for epidemiology or by demonstrating ‘the gradual encroachment of ideas’ for health services research.² Health policy topics also appear as case studies in literature that is more generically concerned with the relationship between research and policy and as an illustrative domain in more general studies of research utilisation.³

Overall, histories of health policy pay little attention to R&D and so can offer little insight into how the development of the departmental programme, and its variable fortunes, have been connected to the evolution of the health care state. One possible explanation is that this is simply too marginal a topic to merit the attention of historians whose primary focus is health policy. Another is that the development of the health research state has been viewed as an aspect of science and technology policy, not of health policy.

Science and technology policy

Policy for health-related research can also be situated within the context of national policy for science and technology. The establishment of the department’s R&D programme can be situated within ‘the technocratic moment’ in UK history. This is a phrase coined by Edgerton to characterise the period between 1959 and the early 1970s, when faith in the potential of science to improve peacetime society was at a high and when science and technology were unusually salient in British politics.⁴ Edgerton documents aspirations for a shift of R&D spending from military to civil purposes, or from ‘warfare state’ to ‘welfare state’, and how these worked out in practice. He argues that science policy historiography has been over-influenced by

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1. Luc Berlivet, “‘Association or causation’? The debate on the scientific status of risk factor epidemiology, 1947-c.1965,” in *Making Health Policy: Networks in Research and Policy After 1945*, ed. Virginia Berridge (Amsterdam and New York: Rodopi, 2005), 39-74.
 2. Walter Holland, *Foundations for Health Improvement: Productive Epidemiological Public Health Research 1919-1998* (London: Nuffield Trust, 2002). Black, Nick. "Health services research: the gradual encroachment of ideas," *Journal of Health Services Research and Policy* 14, no.2 (2009): 120-123.
 3. David Collingridge and Colin Reeve, *Science Speaks to Power: The Role of Experts in Policymaking* (London: Pinter, 1986). Nutley et al., *Using Evidence*.
 4. Edgerton, *Warfare State*, chapter 5.

the ‘two-cultures’ debate and its accompanying ‘declinist’ narrative. Orthodox accounts of post-war science and technology, according to Edgerton, over-emphasises the importance of academic research whilst neglecting development and innovation.¹ Vig’s study of the politics of science and technology between 1959 and 1964 includes detailed analysis of reforms to the organisation of publicly-funded science during this particularly intense period.²

Duffy provides an in-depth account and analysis of the Rothschild reforms, explaining how these emerged from national policy and why they caused so much controversy. The article includes a report from an interview with Lord Rothschild, conducted in 1984. Rothschild blames the failure of his reforms at the DHSS on ‘the lower intellectual reputation of the Health Department in comparison to the MRC’. This meant that the Department was unable to counter the arguments advanced by the MRC when the latter wanted its money back.³

There exists a genre that describes and analyses ‘the machinery of government’ for science.⁴ The edited volume of comparative essays, dealing with R&D in different civil domains, was popular in the 1980s and 1990s. Such essays sometimes include historical writing, typically quite brief and intended mostly as a backdrop to a discussion of current policies.⁵ The essay by Taylor and Teeling-Smith, discussed above, is placed in a volume in this genre. Writing on the historical role of specialists in government includes little that is specific to the medically-qualified.⁶ There has been no systematic examination of the office of Chief Scientist and its incumbents.

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1. David Edgerton, “The ‘linear model’ did not exist: reflections on the history and historiography of science and research in industry in the twentieth century,” in *The Science-Industry Nexus: History, Policy, Implications* eds. Karl Grandin et al. (Sagamore Beach: Science History Publications, 2004). David Edgerton, "Science and the nation: towards new histories of twentieth-century Britain," *Historical Research* 78, no.199 (2005): 96-112.
 2. Vig, *Science and Technology*.
 3. Michael P Duffy, "The Rothschild experiment: health science policy and society in Britain," *Science, Technology and Human Values* 11, no.1 (1986): 68-78.
 4. Hilary Rose and Steven Rose, *Science and Society* (London: Pelican, 1970). Martin Ince, *The Politics of British Science* (Brighton: Wheatsheaf, 1986). Tom Wilkie, *British Science and Politics since 1945* (Oxford: Basil Blackwell, 1991).
 5. Robin Nicholson et al. *Science and Technology in the United Kingdom* (Harlow: Longman, 1991).
 6. Edgerton, *Warfare State*, chapter 3. Philip Gummett, *Scientists in Whitehall* (Manchester: Manchester University Press, 1980).

Kogan and Henkel do include an analysis of the position in about 1980, identifying three separate roles. The Chief Scientist at this point was expected to be chief scientific adviser to the Department; manager of the departmental programme; and lead broker between policy leads and researchers.¹ Holland provides a brief biographical sketch for each Chief Scientist.²

Conclusions

Gaps in the literature

This review has confirmed that no longer duration history of the departmental programme exists that meets all the following criteria: based on primary sources; written from a distanced position; and concerned with the totality of the departmental programme. Only the body of work published by Kogan and colleagues is based on extensive primary research. However, this work devotes little attention to events immediately before and after the team's engagement with the Department. Two conclusions can be drawn. Firstly, that a long duration history is needed and will extend the existing body of knowledge. Secondly, that within such a history most value will be added to the Kogan corpus through a focus on the critical junctures as Rothschild was first implemented and then partially reversed at the Department of Health.

Health policy and science policy

Health research has been largely neglected within writing on health policy. There are two possible reasons for this, which are not mutually exclusive. The first might be coined the 'Stowe critique', as Kenneth Stowe's writings capture this viewpoint most pithily. This is that the outputs of the R&D programme were largely irrelevant to the business of the Department and the enterprise of R&D management marginal except when, on occasions, it demanded attention that would have been more fruitfully directed elsewhere. The second is that health research policy was largely directed by pan-government science and technology policy, and it is therefore part of that policy history. However, most writing in the science policy genre is neither very historical nor especially probing in its treatment of health research. Whatever the explanation, the main conclusion drawn is that the topic has fallen

1. Kogan and Henkel, *Research and Government*, 154-157.

2. Holland, *Improving Health Services*, 63-66, 77-78, 82-85.

between stools. It follows that there is the opportunity to write a history of the programme that integrates the history of health policy and science policy.

Scale and scope

There is a tendency in the literature to write about one stream of activity as if it were the totality of the programme, whether biomedical research, clinical research, or health services research. This tendency is challenged by the *Portfolios*, which present a very diverse programme; and yet still admit to providing less than comprehensive coverage. Another tendency is for divergence in the figures quoted for the programme budget. Consequently, it is difficult to be certain about the scope or scale of the programme, and how this changed over time. The conclusion drawn is that further work is needed to definitively establish scope and scale.

Customers and contractors

The concept of ‘customers’ for health research appears in various places in the literature and is linked to the expectation of ‘useful research’ and to the premises of economically rationalising science policy. Customers in this context are assumed to be procuring and consuming research for utilitarian reasons, rather than as an act of cultural patronage. The customer is sometimes treated as synonymous with the user, but not always. Sometimes the user is, or should be, a wider collective, such as ‘the NHS’ or ‘the public’. Although there is plenty of writing by researchers about the development of research supply, there is less that critically reflects on the role of the Department as a customer. Where such writing can be found it generally reflects upon the patronage of the Department – sometimes appreciatively and sometimes more critically - yet there is little attention to the active role of suppliers in cultivating that patronage. These observations call for an identification of customers, users and suppliers and an understanding of the exchanges between these three groups.

Some of the literature identifies that the Department and the NHS should not be elided and that the former acted as a ‘proxy customer’ for the latter. Exactly how a vast national service, run by many semi-autonomous governing bodies, might organise itself as a collective customer is little examined. The changing relationship between the Department and the NHS has often been analysed, but never specifically in relation to research and development.

Agency and structural forces

Historians disagree on the relative weight of structure and individual agency, and have sought ways to integrate both in causal explanation.¹ Some of the literature reviewed reveals a conviction that individual agency was central to the history of the departmental R&D programme. The most prominent example is Holland, with his pioneers of health services research and inference that much hinged on the character and convictions of the Chief Scientist. Webster identifies new leadership in 1960 as pivotal to improved fortunes for the Ministry of Health. This is consistent with Heclo and Wildavsky's emphasis on the importance of personal trust and relationships in the Whitehall Village. Other writers lay more weight on structural forces. Kogan et al. invoke the growth of rationality in government; 'multimodality' in government and science; and power imbalances. Where they are drawn towards individual agency, as with changes introduced by the third Chief Scientist, the discussion is constructed as a study of the forces bearing on this office. Black identifies the structural forces leading to dissatisfaction with the Ministry's R&D programme in the 1980s. Overall, the literature does not offer any rounded assessment of the relative weight of agency and structure in the development of the health research state.

Change and continuity

The header quotation for this chapter speaks of the persistence of certain basic questions and tensions. This review has confirmed the persistence of recurrent themes: the relationship between the Department and the MRC; the balance of control and funding between the Department and the NHS; the usefulness (or not) of research and the need for effective customers. Yet at the same time the review has identified critical junctures and discontinuities, most notably the Rothschild reforms and their subsequent partial demolition. Understanding the interplay between continuity and change will, therefore, be a key task for this thesis.

1. Philip Pomper, "Historians and individual agency," *History and Theory* 35, no.3 (1996): 281-308.

3. Methodology and Analytical Framework

The prudent use of concepts and theories of explanation borrowed and adapted from other humanities and social science disciplines is an essential pre-requisite to understanding the structures that shaped abstract social processes, as well as the political lives, human intention and actions of people in the past. For constructionists, conceptual interventionism does not generate false knowledge about the reality of the past because it is regarded as being of the provisional kind...the utility of the concept is tested in the evidence.¹

This chapter sets out the methods used to assemble evidence and the analytical framework used to interpret that evidence. The study combines qualitative and quantitative methods, accepting that each provides different and non-competing representations of the same reality. Quantitative analysis serves to draw out the ‘big picture’ and to counter the tendency noted in the literature to focus on one strand of activity. Qualitative analysis adds rich detail that is not accessible through statistics alone. In terms of typologies of mixed methods, this can be described as a concurrent triangulation strategy, in which each method complements the other.²

The analytical framework is a heuristic device. It uses working themes, derived inductively from the literature review, to build a structure for analysis of the empirical data. These themes are not definitive and it is entirely possible that another investigator, approaching the topic from a different perspective, might select different themes. The purpose is to provide a framework for the development of a more conclusive interpretation. As part of an argument that atheoretical modern history is an impossibility, because the sheer abundance of empirical evidence compels selectivity, Tosh recommends ‘a certain detachment on the part of historians towards their theories, and a readiness to change tack in the lack of evidence’.³ This

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1. Keith Jenkins and Alun Munslow, “Introduction,” in *The Nature of History Reader* eds. Keith Jenkins and Alun Munslow (London: Routledge, 2004), 1-18.
 2. Joy Adamson, “Combined qualitative and quantitative designs,” in *Handbook of Health Research Methods* eds. Ann Bowling and Shah Ebrahim (Maidenhead: Open University Press - McGraw Hill, 2006), 230-245.
 3. John Tosh, *The Pursuit of History* (London: Pearson, 2000), 136.

advice will be heeded. The use of explicit theory places this thesis in the ‘constructionist’ approach: ‘empiricism plus concepts’.

Qualitative methods

Literature review

A literature search was initially undertaken using the database HMIC (Health Management Information Consortium). Search terms included ‘medical’, ‘biomedical’, ‘operational’, ‘social’ and ‘clinical’; and ‘R&D’, ‘research’, ‘development’; and ‘policy’, ‘strategy’ and ‘management’. Although this strategy yielded around 1500 results hardly any of these were relevant. Most of the items discovered were concerned with reporting research results or only tangentially related, for example articles about ‘research into practice’. Although HMIC includes some articles dating back to 1979, coverage thins out rapidly for older material. This exercise demonstrated the limitations of any attempt at a systematic approach to the identification of relevant literature using databases.

In view of these limitations, the search strategy became one of discovering texts through a mix of consultation and ‘reading out’ through references. Those consulted included the project supervisor and advisory panel, interested academic staff at the London School of Hygiene and Tropical Medicine and interviewees. Another strategy was to start with a text of known relevance and identify the subject headings assigned to this text in a specific library catalogue. A search was then undertaken in that catalogue using the same subject headings. This approach was followed fruitfully in the library of the London School of Hygiene and Tropical Medicine and the University Library, Cambridge. A further approach was to browse within a set of related items. For example, Godber donated books to the library of the clinical school, Cambridge, following his retirement as CMO. This collection, although not separately catalogued, can be reconstructed by browsing the open shelves.

Document review

As noted in the literature review, some publications are at once both secondary interpretation and primary source. The best examples of this are the two Nuffield Provincial Hospitals Trust *Portfolios*, which include both commentary on the history and management of the programme and catalogues of studies, including financial allocations.

The National Archives, London, provide a wealth of relevant material, some of which became available for the first time during this project as the thirty-year point was passed. The relevant records are mostly located within the Ministry of Health/Department of Health and Social Security MH series. Other relevant series include the T (Treasury) series, the BN series (Ministry of Social Security then DHSS), the FD series (MRC) and the CAB series (Cabinet Office). Filing and indexing within the MH series is not well-organised. For example, many of the papers relevant to the R&D programme are to be found in the MH166 'hospital construction' series. Many individual files are described in ways that are not revealing of all their content. This presents an interesting, and perhaps instructive, contrast with the immaculately organised MRC records in the FD series. Systematic searching is thus a far from straightforward business and various strategies were employed. One was to search on a general term like 'research and development' or 'operational research' in combination with the relevant department. This yielded many results which then had to be sifted through to try and establish the most relevant – an inexact science given the vagaries of file descriptions. Another productive strategy was to take a file identified as relevant and browse around this in the catalogue by file reference. A third strategy was to search on original Department file reference. This was especially helpful in finding files related to individual research projects, with the original file reference picked up from unpublished catalogues in the archives. The Douglas Black collection in the Wellcome Library was also searched.

Parliamentary papers consulted included command papers, select committee reports, and parliamentary accounts committee reports. Ministry/Department of Health papers included Annual Reports, the Annual Reports/Yearbooks on Research and Development, Hospital Management letters and other published items. The Cabinet Annual Reports on Research and Development were a further important source. Published memoirs and obituaries, including Munk's Roll, provide information on key individuals, as did recorded interviews in the Royal College of Physicians/Oxford Brookes University Medical Video.

Oral History

Oral history was used to gather information at first hand from participants. The protocol for the study, which dealt particularly with the oral history component, was

approved by the Ethics Committee of the London School of Hygiene and Tropical Medicine on 20 September 2012.

Face to face or telephone interviews were held with 13 individuals with personal involvement in the history of the Department's R&D programme. The selection of individuals for interview was partly purposive, using sources such as *Who's Who* and enquiries of personal contacts. The initial plan was to interview a mix of civil servants and researchers. The latter were the easiest to trace but proved the least informative, not having great insight into the workings of the programme. One important exception is Nancy Korman, who was Kogan's field researcher in the DHSS from 1974 to 1978. Former civil servants were the most informative sources but also hardest to trace and more reluctant to provide information, being still bound by their obligations under the Official Secrets Act. The vagaries of the process mean that the informants cannot be claimed to be a systematic sample of the various constituencies with an interest in the departmental programme.

The final mix included researchers funded for multiple studies by the Department (2), researchers who investigated the DHSS (2), retired medical civil servants involved in R&D programme management at a senior level (3), retired senior civil servants with other roles that brought them into contact with the programme (2), retired senior staff of in-house research units (3) and a former management consultant who advised on the reorganisation of the DHSS (1). Some potential key informants could not be traced or declined to be interviewed and at least two (Nairne and Stowe) died during the project.

All interviews were semi-structured. A 'menu' of questions relevant to the interviewee's background was prepared in advance but the interview was allowed to go 'off-piste' if interesting new avenues emerged. The aim was to develop a more conversational style, which can be more effective in eliciting information than direct questioning.¹ As a general observation, the most illuminating interviews were those that departed most from the pre-prepared menu as they typically involved the introduction of some completely new perspective or avenue of enquiry.

1. Paul Thompson and Rob Perks, *An Introduction to the Use of Oral History in the History of Medicine* (London: British Library National Sound Archive, National Life Story collection, 1993), 14-15.

The original intention was to record interviews to archive standard, with a view to lodging them with the British Library. In the event, it soon became apparent that recording had an inhibiting effect and encouraged a tendency for interviewees to fall back on well-rehearsed 'public narratives'. This is a common occurrence in elite oral history.¹ Others became more circumspect than was helpful in the presence of a recording device, with former civil servants especially wary. Sensitivities increased markedly once discussion moved into the 1980s. In the event, six interviews were recorded. For the remainder, notes were written up immediately after interview and sent to interviewees for verification.

Another original intention was the naming of sources and attribution of quotations. It was anticipated that that this would add veracity and encourage interviewees to engage with transcripts. The consent form offered choices for disclosure and all interviewees either elected to be named and quoted subject to their specific consent, or opted for complete anonymity with no quotations. A mix of these approaches is used in this thesis, depending on the consent given. The small number of interviewees in each category means that there is an elevated risk of deductive disclosure for those who opted for anonymity. For this reason, a full list of named interviewees is not provided.

Draft chapters were sent to four interviewees for their comments. These chapters dealt with the periods in which the interviewees had been participants. In addition, a complete draft of the thesis was reviewed by Professor Walter Holland. A second meeting was held with three of these reviewers to discuss their comments, after which decisions were made about amendments. The other two interviewees did not indicate any wish for a further discussion, having no significant issues with the draft.

Quantitative analysis

The primary challenge encountered in the quantitative analysis lay not in the choice of statistical method but in the abstraction of reliable and consistent data from historical sources. A longitudinal analysis of R&D allocations was undertaken for the

1. Virginia Berridge, "'Hidden from history'? Oral history and the history of health policy," *Oral History*, (2010): 91-99.

whole of the period 1961 to 1986. Details of the methodology and sources used is included as an appendix 1. Findings are set out in detail in the following chapter.

Sources

No single, complete data series for R&D allocations to the health department has been published for the period 1961 to 1986. Construction of such a series requires the combination of data from more than one source. Four sources were considered for this purpose.

1. The annual reports of the Ministry of Health (1961 to 1968).
2. DHSS Annual reports on research and development (1973 to 1991)
3. Supply estimates (all years, but with significant limitations after 1982).
4. Cabinet Office (CO) Annual Reviews of Government Research and Development (1982 to 1993).¹

The last two series were identified as the most complete and reliable and so were used as the basis for the longitudinal analysis (see appendix 1 for a full discussion).

The Supply Estimates represent the government's budget and provide a detailed breakdown of the public expenditure authorised by Parliament through the annual Appropriation Act. For most of the period, a table showing the research and development content in the Estimates by spending department was included in the Memorandum by the Financial/Chief Secretary to the Treasury.² The allocation heads used in the Memoranda can be cross-referenced to the full Supply Estimates for a more detailed breakdown.

The form of the Estimates was simplified after 1981/2, when much detail disappears altogether. Critically for current purposes, this includes both the R&D table in the Memorandum and the detailed breakdown of departmental sub-heads in the Estimates. After 1981/2, the Estimates cease to provide the detail needed to continue the data series for departmental R&D spending, necessitating the use of CO reports thereafter. The CO Annual Review was published between 1983 and 1993

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1. The financial year in the UK public sector runs from 1st April to 31st March. An annual report published in, for example, autumn 1970 would thus include data for the financial year ending 31st March 1970, which might also be expressed as 1969/70.
 2. Financial Secretary up to and including 1969/70, Chief Secretary thereafter.

inclusive. It provides detailed analysis of government R&D spending, starting with data for 1981/2, so that there is one year's overlap with the Estimates before these discontinue more detailed analysis.

In summary, the Memoranda and Supply Estimates are the source used for departmental R&D budget for the period up to and including 1981/82; and the CO Annual Reviews of Government Funded R&D for 1982/83 onwards. Data for the Medical Research Council are also included in the analysis for comparative purposes and is available from the Estimates for the whole of the period 1961 to 1986 as research council allocations were still itemised after 1981/82.

Only data relating to England and Wales was abstracted, as health research was dealt with throughout the study period by the Scottish Home and Health Department (SHHD) under separate organisational arrangements.¹ Votes for research carried out or commissioned by SHHD are shown under separate headings in the Estimates throughout, whereas those for the Welsh Office are not for the years between 1962/3 and 1970/1 or after 1980/1. Nor do the Cabinet Office Annual Reviews disaggregate England and Wales when reporting on the R&D spend of the DHSS.

Consistency

There are some inescapable inconsistencies in the series: because of the need to combine two sources to construct a complete data series; and because of changes in the cost base used for preparation of the Estimates. Appendix 1 describes the risks to reliability in detail, together with the approach taken to assess the materiality of this risk. The conclusion drawn is that the inescapable inconsistency arising from the combination of data from the Estimates and the CO Annual Reviews is not material to the objectives set for the analysis.

Price base

Adjustment of the data series to a constant price basis is necessary, given the exceptionally high levels of inflation experienced in the UK during the 1970s. Choosing an appropriate deflator for the National Health Service is problematical and, in any event, NHS-specific estimates of inflation would not necessarily be valid

1. Andrew Watt Kay, *Research in Medicine: Problems and Prospects* (London: Nuffield Provincial Hospitals Trust, 1977). J. R. Butler and F. A. Boddy, "The evolution of health services research in Britain," *Community Medicine* 5 (1983): 192-199.

for this series given the significant involvement of non-NHS providers in research and development.¹ In view of these considerations, and the limited choice of price index series available for this period, a pragmatic approach was taken and the Retail Price Index (RPI) was adopted as the deflator.² The precise approach taken towards adjusting for inflation is set out in Appendix 1.

Analysis at sub-head level

The Estimates are organised into classes with up to four levels of sub-head analysis. The sum allocated, or the ‘vote’, for a certain purpose can thus be disaggregated to these various levels. Tracking data at sub-head level in the Estimates presents two challenges. The numbering of classes and sub-heads changes from time to time as do the descriptors used for data items at each level. Fortunately changes in both descriptors and numbering rarely occur in the same year and there is sufficient consistency in the original descriptors to be able to track data series throughout the period with confidence. A standardised descriptor has been adopted for each data series to overcome instability in the original descriptors. The tables in Appendix 1 map these back to the Estimate classes, sub-heads and original descriptors. Cross referencing to the charts in chapter 4 is also included. The Cabinet Office annual reviews provide a simpler disaggregation of overall spending with consistent use of headings and so these challenges do not arise when working with this source.

The global budget for civil research

Quantifying the overall civil R&D budget on a consistent basis over the whole period is problematical because of a blurred boundary between civil and military research, especially in the earlier years. A full discussion of the methodological issues involved, and the approach taken in response to these, is included in Appendix 1.

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1. John Appleby, "Government funding of the UK National Health Service: What does the historical record reveal?" *Journal of Health Services Research and Policy* 4, no. 2 (1999): 79-89.
 2. Office for National Statistics, *Economic Trends, Annual Supplement* (Palgrave Macmillan, 2005), Table 2.1.

Analytical Framework

The analytical framework is comprised of three themes. These are related in terms of their subject focus, but draw on disparate theoretical traditions. The first theme is *the health research state*. This draws on political theory to examine group interests, power and influence. The second is *organisation for health research*. This looks to organisational theory for interpretation of organisational form, policy and practices. The final theme is *exchanges for health research*, which draws on social epistemological theories about research production and utilisation to specify the assumptions used by different actors in research commissioning. Each of these themes is now discussed in turn, together with its application.

The health research state

In developed societies, health care is of such cost, scale and complexity that it has been conceptualised as a discrete domain of the state: ‘the healthcare state’.¹ Health-related research and development is also a substantial and complex endeavour and involves extensive government intervention. What we might think of as ‘the health research state’ is characterised by its own interest groups, power structures, networks, institutions, and dynamics.² The health research state might be viewed as a sub-domain of the healthcare state or as a sub-domain of the science and technology state. Or it might be better thought of as a separate and distinctive domain, bridging the two.

If the health research state exists, then theories of the state will be relevant to its analysis.³ Health research possesses its own interest groups: politicians, civil servants, research commissioners, researchers, research institutions, health care professionals, health services providers, industry, charities, patients and the public. A pluralistic model, assuming a ‘neutral state’, would see the role of the state as

1. Michael Moran, *Governing the Health Care State: a Comparative Study of the United Kingdom, the United States and Germany* (Manchester: Manchester University Press, 1999).

2. Anthony Harrison and Bill New, *Public Interest, Private Decisions. Health-related Research in the UK* (London, King's Fund, 2002). The authors use the term ‘the health research economy’ but there is little analysis of markets in their book, which is mainly concerned with the role of the state.

3. Patrick Dunleavy and Brendan O'Leary, *Theories of the State. The Politics of Liberal Democracy* (Basingstoke: Palgrave Macmillan, 1987).

balancing these interests for the benefit of all citizens. This role would include the protection of weak or unorganised groups. The most obvious of such groups is the public, whose interests need protection in two capacities: as the ultimate funders of state-funded research, through taxation; and as the intended beneficiaries of health research. Science policy, with its economically rational narrative of maximising public benefit from finite public expenditure, typically assumes this model of the state.

Empirical studies have demonstrated that policy is more often the outcome of the self-interested manoeuvring of interest groups within the state apparatus than of competition for influence between external groups. Consequently, the neutral state is now seen more as an ideal than a reality. As the role of the state has extended and its business become more complex, so it has been necessary to supplement the expertise of the generalist public administrator with that of more specialised occupational groups. These groups will, in varying degrees, be professionalised. Theories of ‘the professionalised state’ can be found in two schools: neo-pluralism and elite theory. Both agree on the vital role of professional-administrative elites in governance. Neo-pluralism takes a relatively benign view of this phenomenon because it identifies checks and balances on professional-administrative influence in liberal democracies. These include professional ethics; the sub-division of government to disperse power and create more interactive policy-making systems; and the promotion of public participation.¹

Elite interpretations of the same phenomenon fall into two groups. The first sees the growth of specialism as a natural development of bureaucracy, necessitated by the increasingly complex nature of the modern world. Because of ‘bounded rationality’, there is a requirement to break problems down into smaller problems, each of which can then be assigned to a smaller sub-organisation, which can engage relevant specialist expertise. The professions provide accreditation and regulation of such expertise, relieving the state of this task. This school of thought, ‘democratic elitism’, converges with neo-pluralism in many respects, such as its scepticism about the possibility of comprehensive rational planning. It differs in that it is more

1. Dunleavy and O'Leary, *Theories of the State*, 300-315.

inclined to see professional bureaucracy as serving professional interests than as moderating plural interests.

The second interpretation, radical elite theory, dismisses democratic elitism as little more than the rationalisation of power imbalances within society. Radical elite theory is more concerned with the structural distribution of power, which is understood to be deeper seated, less scrutinised and more intractable than the competition between interest groups postulated by pluralist theory.¹ One of the concepts advanced by this school is ‘technocracy’. In a technocracy, specialists embedded in the state apparatus become dominant and pursue programmes that are motivated by their own interests and norms. Technocracy has been described by its critics as ‘that society in which those who govern justify themselves by appeal to technical experts, who in turn justify themselves by appeal to scientific forms of knowledge’.² Technocrats have been charged with prioritising economic and technological development above social justice; with being inveterate statist; and with being ‘organizational and policy imperialists’.³

These theories of the state can be applied to the evidence explored in this thesis at two levels: the institutional and the sub-institutional. In the 1960s, new institutional bases were established for publicly-funded, health-related research. The departmental programme was by far the most significant of these, but the health interests of the SSRC should not be overlooked. These new institutions extended the scale of their activities and fields of influence through the late 1960s and into the 1970s, co-existing with an equally expansive MRC. This significant diversification of the institutional base for health research might be interpreted in neo-pluralist terms as a natural and desirable response to the growing demands made of the state. The question to be explored is whether the MRC shared this interpretation, or whether the Council’s behaviour can be more readily explained as a defensive response to a

1. Robert R Alford, *Health Care Politics: Ideological and Interest Group Barriers to Reform* (Chicago: University of Chicago Press, 1975). Christopher Ham, *Policy-making in the National Health Service: a Case Study of the Leeds Regional Hospital Board* (London: Macmillan, 1981). Judy Allsop, *Health Policy and the National Health Service* (London: Longman, 1984).

2. Roszack, Theodore, *The Making of a Counter-Culture*, (New York: Garden City, 1969), 7-8.

3. Dunleavy and O’Leary, *Theories of the State*, 175-176.

threat to its dominance and value systems. If the evidence suggests that the latter explanation is more plausible, then elite theory may be more relevant.

At the sub-institutional level, the influence of different actor groups will be examined. In the case of the Department, these include generalist civil servants, medical civil servants and civil servants drawn from other health and social care professions. The medical profession will be central to any application of theories of the professionalised state to health R&D, for two reasons. First, the development of a medical-administrative structure under the CMO meant that the medical profession enjoyed considerable influence over health policy. Second, research has been central to the project of enhancing the status, autonomy and authority of the medical profession.¹ Medical dominance and authority is potentially both cause and effect of the profession's engagement with research. However, a focus on medicine should not lead to neglect of other occupational groups or disregarding of their interests. Generalist civil servants were also involved with the R&D programme and may have sought to achieve policy objectives that were not identical to those of their medical colleagues. Other occupational groups, such as nurses and health services managers, may have engaged with the programme in pursuit of their own agendas. The researcher community, which was also experiencing expansion and differentiation in this period, seems unlikely to have been a purely responsive actor. Organised groups in civil society may have sought to bring patient and public perspectives to bear on the emerging R&D programme. If it can be shown that the Department was receptive to these diverse interest groups, then this will support a neo-pluralist interpretation. If, on the other hand, the evidence suggests that policy was shaped by a narrower section of interests, this will direct us back to elite theory.

Organisation for health research

For the Ministry of Health, the commissioning of R&D at scale was, in the 1960s, a novel activity. How best to organise for this new activity would not have been obvious. Recent writing indicates that research commissioning is characterised by uncertainty about the relationship between means and ends. The more the research is

1. Andrew Treacher and Peter F. Wright, *The Problem of Medical Knowledge: Examining the Social Construction of Medicine* (Edinburgh: Edinburgh University Press, 1982). For a micro-level study also see Elsbeth A. Heaman, *St Mary's. The History of a London Teaching Hospital* (Montreal & Kingston: McGill-Queens University Press, 2003).

expected to deliver useful, actionable knowledge, the greater this uncertainty. Challenges in achieving positive societal outcomes from applied health research arise both before and after a commission is placed.¹ In the former, the challenge is how to derive the most prescient research questions from social problems; and how to deploy limited funding most efficiently given the abundance of such problems. Once research is commissioned, the challenges become those of ensuring that the research produced does, in fact, address the issues intended and that outputs can be translated into policy. There exists a literature that describes and rationalises the processes adopted by publicly-funded health research commissioners in response to these challenges.²

Different organisational theories predict different responses to such challenges. Classic bureaucratic theory would predict the emergence of an organisation designed for task performance. Features would include a clear allocation of roles among office holders and explicit procedures.³ Such attributes are generally associated with organisations operating in a stable environment. Other theorists argue that a more organic organisational form may be appropriate for organisations undertaking non-routine tasks in a more complex and fluid environment. Such organisations are characterised by decentralised decision-making; greater participation in decision making and reliance on lateral communication and co-ordination mechanisms to link work units.⁴ These mainstream organizational theories appear inadequate to describe public sector research commissioning organisations, which operate under ‘prevailing norms and unstated assumptions which shape the way that commissioned health services research programmes usually work’.⁵ To understand these idiosyncratic

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1. Council for Medical Sciences, *The Societal Impact of Applied Health Research* (Amsterdam: Koninklijke Nederlandse Akademie van Wetenschappen, 2002).
 2. Andrew Stevens and Ruairidh Milne, "Health technology assessment in England and Wales," *International Journal of Technology Assessment in Health Care* 20, no.1 (2004): 11-24. Pauline Allen, Stephen Peckham, Stuart Anderson and Nick Goodwin. "Commissioning research that is used: the experience of the NHS Service Delivery and Organisation Research and Development Programme," *Evidence and Policy* 3, no. 1 (2007): 119-134.
 3. Max Weber, *The Theory of Social and Economic Organization* (Glencoe, IL: Free Press, 1964).
 4. James D Thompson, *Organizations in Action*, (New York: McGraw-Hill, 1967).
 5. Kieran Walshe and Huw T.O. Davies. "Research, influence and impact: deconstructing the norms of health services research commissioning," *Policy and Society* 29, no.2 (2010): 103-111.

organisations, it may be more profitable to employ institutional theory, as developed in the field of organisational analysis.

Research commissioning is characterised by uncertainty between means and ends. It calls for professional expertise in the specification of requirements, assessment of proposals, and quality assurance of outputs. In the case of the departmental programme, commissioning was embedded within the apparatus of the state. Such conditions, institutional theorists predict, will shape organisational responses that are determined first and foremost by a quest for legitimacy. Legitimacy might be defined as a state in which all key stakeholders believe the organisation to be effective and its structures and processes appropriate to its mission. Technical performance, which may be hard to assess in any event, will be a secondary consideration. In practical terms, this means adopting the same structures and operating conventions as other organisations perceived as successful in the same field. Institutional theorists describe this behaviour as ‘mimetic isomorphism’. Conformity with field norms will be signalled to other interested actors through ceremonial activity, as a strategy for sustaining legitimacy. This explains why sameness is more evident than diversity in any given organisational field.¹ An organisational field emerges over time through processes of ‘structuration’, characterised by the emergence of shared rationalizing myths, ceremonial norms and mimetic isomorphism. A field will be subject to a dominant institutional logic, ‘a set of material practices and symbolic constructions which constitutes its organizing principles, and which is available to organizations and institutions to elaborate.’ These institutional logics are ‘symbolically grounded, organizationally structured, politically defended and technically and materially constrained.’² When, for reasons of environmental change, competing institutional logics are brought to bear in the same field, then the outcome will be organisational turbulence.³

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1. Paul DiMaggio and Walter Powell, “The iron cage revisited: institutional isomorphism and collective rationality in organizational fields,” in *The New Institutionalism in Organizational Analysis*, eds. Paul DiMaggio and Walter Powell (Chicago: University of Chicago Press, 1991), 63-82.
 2. Roger Friedland and Robert R. Alford, “Bringing society back in: symbols, practices and institutional contradictions,” in *The New Institutionalism in Organizational Analysis* eds. DiMaggio and Powell, 232-263.
 3. Martin Kitchener, "Mobilizing the logic of managerialism in professional fields: the case of academic health centre mergers," *Organization Studies* 23, no.3 (2002): 391-420.

Sociological institutionalism (from which institutional theory in organisational analysis is derived) is fundamentally sceptical about excessive reliance on rational-actor models of organisation and favours cognitive and cultural explanations. It views ‘institutions’ not just in terms of tangible and codified phenomena (organisations, regulatory regimes, organised interest groups, state apparatus, laws, and so on) but also in terms of conventions and shared understandings that are so dominant and pervasive that they ‘acquire a rule-like status in social thought and action’.¹ Institutionalisation is understood to be a process in which shared cognitions define meanings and set the boundaries for what is understood to be possible and acceptable in terms of organisational structures and programmes.²

For present purposes, the insights of sociological institutionalists into formal structures as ‘myth and ceremony’; the acceptance that legitimacy may be placed above task performance in conditions of high uncertainty; and the associated idea of mimetic isomorphism should alert us to the possibility that the organisational responses of the Department for R&D may have been determined more by stakeholder expectations than by any concern for efficiency, as imagined by science policy. This, in turn, prompts us to consider the identity and range of stakeholders and their expectations, which leads us back to either pluralist or elitist narratives. The related concept of competing ‘institutional logics’, in which non-compatible cognitive and cultural schema compete to control the same organisational field, may prove useful in explaining some of the turbulence around the Rothschild Reforms and their destabilisation of the relationship between MRC and Department.

Theorists of sociological institutionalism claim that its methods can illuminate change over widely varying time scales.³ In practice, most writing in this tradition focuses on micro-level studies, short timescales and incremental change, reflecting the interests of its practitioners, who are sociologists rather than historians. However, there seems no fundamental reason why sociological institutionalism should not be

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1. John W Meyer and Brian Rowan, “Institutionalized organisations: formal structure as myth and ceremony,” in *The New Institutionalism in Organizational Analysis*, eds. Powell and DiMaggio, 41-62.
 2. Peter A. Hall and Rosemary C.R. Taylor, "Political science and the three new institutionalisms," *Political Studies*, 54 (1996): 936-957.
 3. M. Tina Dacin et al. “Institutional theory and institutional change. Introduction to the special research forum,” *The Academy of Management Journal*, 45, no. 1 (2002), 43-56.

applied to longer periods. Adoption of an explicitly historical perspective holds out the possibility of convergence between sociological institutionalism and another of the 'new institutionalisms', historical institutionalism. Regardless of different disciplinary origins, the two schools converge around temporal arguments, close attention to context, and an appreciation that new institutions emerge not from the void but from a world already replete with existing institutions. More divergently, historical institutionalism tends to pay more attention to the rational calculations of individuals in their response to institutions, rather than emphasising the deterministic force of shared cognitions and taken-for-granted conventions. Historical institutionalists pay more attention to power and its distribution in processes of institutional change. They have a distinctive perspective on processes of historical development, using concepts such as path dependency, the 'stickiness' of organisations, critical junctures and the 'layering' of new organisational solutions onto old.¹

These concepts, which are most often used to explain institutional inertia, may assist in understanding the dynamics of a programme that was built up through 'converging streams' of activity and subject to at least two significant discontinuities over the study period. They draw our attention to preceding institutions and alert us to the possibility that organisational responses developed in one set of conditions may persist even once those conditions have changed. These perspectives may assist in understanding the interplay between continuity and change in the history of the departmental R&D programme.

Hall and Taylor argue for a 'more open and extensive interchange' between historical and sociological institutionalism. Hay and Wincott take issue with such attempts at 'synthetic institutionalism', arguing that it understates the potential of historical institutionalism to bring a distinctive contribution to the structure versus agency debate.² To achieve its full potential, they argue, historical institutionalism must 'be developed into a theory of institutional innovation, evolution and transformation capable of linking the subject in a creative relationship with an institutional environment'. 'Strategic action' by individual actors seeking to initiate

1. Hall and Taylor, *Political science and the three new institutionalisms*.

2. Colin Hay and Daniel Wincott, "Structure, agency and historical institutionalism" *Political Studies* 46 (1998): 951-957.

change is an important concept in this scheme, adding an element of dynamism that overrides the emphasis upon institutional inertia otherwise dominant in historical institutionalism. However, individuals' strategic action is always constrained by their perceptions of what is feasible and desirable and their sense of the possible is shaped by their institutionalised environment. Individual judgements about context and appropriate strategy are always imperfect, and so outcomes are unpredictable.

This theory might help in assessing the importance of individual agency in shaping the departmental R&D programme. Holland suggests considerable differences in strategic action and its consequences between Chief Scientists, distinguishing between those responsible for the golden age and those associated with later decline. Such differences in action may have been influenced by changing structural forces. Or they may have reflected variable judgements about what was feasible and desirable, shaped by cognitive frameworks brought from differing institutional backgrounds. The extent to which these judgements correctly appraised the malleability of the structural forces in place had a bearing on the extent to which different Chief Scientists achieved their strategic goals.

Exchanges for health research

The concept of 'exchanges' in research is adapted from Kogan and Henkel, who were influenced by the sociologist Peter Blau. Blau showed how association and exchanges between individuals were related to the distribution of power.¹ Kogan and Henkel employ the term in relation to interactions between the Department as the customer for research, researchers and the end users of research. Different views of the ideal nature of such exchanges competed for dominance. Rothschild introduced a distanced, quasi-market model of exchange with his much-quoted dictum that 'the customer says what he wants; the contractor does it (if he can); and the customer pays'.² This was anathema to the MRC, which favoured a curiosity-led approach, in which it would be more appropriate to speak of patrons than customers. Whilst not subscribing to this view, Kogan nevertheless dismisses the customer-contractor construct as a 'glib metaphor' that overlooks power imbalances and assumes greater

1. Peter M. Blau, *Exchange and Power in Social Life* (New York: John Wiley & Sons, 1964).

2. Cmnd. 4814 *A Framework for Government Research and Development* (London: HMSO, 1971), para. 6.

coherence than exists in both government and science. Following Blau, he links exchanges to dependencies and examines the extent to which the interests of each constituency were promoted by interaction with the others.¹

The preference for distanced or non-distanced exchanges reflects differing, often unstated, assumptions about how research is produced and used. These have been made explicit, most notably in the typology developed by Weiss.² Using Weiss's terms, Rothschild's nostrum was based on the problem-solving model of research utilisation. In his construct, applied research was defined by its problem-solving intention. In contrast, the MRC subscribed to a knowledge-driven model. In his advisory capacity, Kogan offered an alternative approach – the research liaison group. This offered a blend of problem-solving, interactive and enlightenment models. Whilst not disputing the practical orientation of the Department's programme, Kogan argued that interaction was more likely to produce useful knowledge than a distanced mode of exchange. He also saw ongoing engagement as serving less instrumental purposes, which elsewhere have been defined as 'conceptual uses of research'.

The complex and often indirect ways in which research can have an impact on the knowledge, understanding and attitudes of policy-makers and practitioners. It happens when research changes ways of thinking, alerting policy-makers and practitioners to an issue or playing a more general 'consciousness raising role'.³

In a further version of the deliberative model, the researcher becomes part of a policy network. Such networks have been identified as central to policy development and as a place where government and science interact in a way that changes both. Policy networks feature in neo-pluralist accounts as a means by which expertise can be co-opted by the state. Researchers join with government insiders and think-tanks to develop policy through interaction in a way that is issue specific. It has been

1. Kogan and Henkel, *Government and Research*, 163-167.

2. Weiss, Carol H. "The many meanings of research utilization," *Public Administration Review* 39, no. 5 (1979): 426-431.

3. Nutley et al., *Using Evidence*, 36

observed that ‘knowledge elites are crucial sources of innovation in public policy making’.¹ Case studies and biographical writing add flesh to this observation.²

Differing and non-compatible models of research production and utilization may have been held by various actors at various times in the history of the departmental programme. These may not always have been made explicit, nor might the range of possible perspectives have been fully appreciated. This would have led to conflicting expectations of commissioners, users and suppliers and of the expected forms of exchange and dependency between them. The implication for this study is that the underlying assumptions about exchanges for health research should be brought to the surface, and the implications for the programme explored.

1. Dunleavy and O’Leary, *Theories of the State*, 302.

2. Virginia Berridge (ed.), *Making Health Policy: Networks in Research and Policy after 1945* (Amsterdam and New York: Rodopi, 2005). Sally Sheard, *The Passionate Economist: How Brian Abel-Smith Shaped Global Health and Social Welfare* (Bristol, Policy Press, 2014).

4. Scale and Scope

Broadly speaking, the Department's role is to initiate and support research and development directly related to the discharge of its own policy and administrative responsibilities, while the Medical Research Council is the government agency responsible for the support of the advancement in proper balance of research in the whole field of medical science, a position which the Social Science Research Council may one day hold in relation to the social sciences.¹

Establishing the composition and balance of the programme from the literature is problematical. There are material inconsistencies between budget figures given by different authors, together with opacity about sources. Some streams of research have been well-documented, whereas other have been largely ignored. This chapter seeks clarity about the scale and scope of the programme through a longitudinal quantitative analysis, which begins to characterize the programme and provides a firm foundation for subsequent chapters.

Statutory provisions and funding

The analysis presented in this chapter includes exchequer funding for R&D under the control of the Department only. It excludes R&D funded from general allocations to NHS authorities and under their control; and NHS research funded from non-exchequer sources. A brief review of the statutory provisions will clarify these distinctions.

When the Ministry of Health was established in 1919, the relevant Act conferred powers upon the Minister for 'the initiation and direction of research'.² These powers were reserved and amplified by the National Health Service Act of 1946 but 'without prejudice to the duties imposed upon the Committee for Medical Research under the

1. MH 166/974, *The content and Balance of the Research and Development Programme*, 1969.

2. Ministry of Health Act, 1919 (9 &10 Geo. 5 Ch.21), s.2

said [1919] Act'.¹ The Minister was empowered to 'conduct, or assist by grants or otherwise any person to conduct, research into any matter relating to the causation, prevention, diagnosis or treatment of illness or mental defectiveness'. Hospital authorities were given the power to conduct research, but not to assist others in the conduct of research.² What these provisions meant in practice was that the Minister could procure research either by directly employing researchers or by making grants to external researchers. A hospital authority had the power to undertake research if it could find the means to do so, but could not make grants to external bodies to do the same. Money for research might be found from exchequer funds and hospital authorities also had the freedom to fund research using 'free-monies', i.e. non-exchequer funds.

Boards of Governors had been established only for teaching hospitals (or groups of hospitals centred on a teaching hospital) in 1948 and had, by exception, retained control of their endowment funds in England and Wales. The endowment funds of non-teaching voluntary hospitals had been transferred in 1948 to the central Hospital Endowment Fund, which was under the control of the Minister.³ Ready access to endowment funds, combined with medical school influences, made the teaching hospitals favoured sites for locally initiated research in the NHS. Grants from independent charitable trusts and foundations were the other source of free monies. Any hospital authority, not just the Boards of Governors, was at liberty to receive such grants.⁴

Objectives

As noted, the existing literature is inconsistent when it comes to quantification of resources. Cohen's introduction to *Portfolio 2*, which should be an authoritative source, includes a table showing the 'scale and scope' of the programme in 1972/3, analysed between its various streams. However, the source of this data is not

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1. 9&10 Geo. 6 Ch.81 s.16. The Committee for Medical Research was reconstituted as the Medical Research Council in 1920
 2. 'The hospital authorities' includes Regional Hospital Boards, Hospital Management Committees and Boards of Governors.
 3. Brian Abel-Smith, *The Hospitals in England and Wales 1800-1948* (Cambridge, MA: Harvard University Press, 1964), 478-479.
 4. MH 123/498 *Financing of Medical Research at Hospitals in the National Health Service*, 7 February 1949.

specified, and we are not told whether the numbers are budget or outturn.¹ The table shows a total programme in 1972/3 of £10.225 million. However, figures given by other authors for the total programme budget in the early 1970s range from £3 million² through to £3.5m million (1973)³; £6.9 million (1972/3)⁴; and £15 million (1973).⁵ This variation is too large to be explained by timing differences alone. A likely explanation is that different authors assume different elements of the programme to be ‘in scope’, although this cannot be said with complete certainty, given the opacity about sources. Another possible explanation is the underlying unreliability of the sources. For example, Holland appears to have drawn his data from the annual R&D reports of the Department. The Royal Statistical Society warns against using departmental reports in general and is especially sceptical about the reliability of DHSS data.⁶ Against this background, the goal was to construct an authoritative data series for the R&D resources controlled by the Department. This would address four objectives (table 4.1).

Table 4.1: objectives and data requirements

	Objective	Data requirement
1	To quantify the overall scale of the programme and identify trends and key junctures over the period 1961 to 1988.	Total R&D allocations to the health department.
2	To identify and quantify specific funding streams within the programme, as a means of characterising the programme and identifying streams for more in-depth investigation.	Allocations to individual R&D funding streams, reconciled to total allocations.

1. Cohen, *Introduction, Portfolio 2*, xii.

2. Cohen, *The health department and research*.

3. James M. G. Wilson, "Richard Cohen: first Chief Scientist at the DHSS," *Journal of the Royal Society of Medicine* 91 (1998): 222-224.

4. Holland, *Improving Health Services*, 107.

5. Obituary: Richard Cohen, *The Times* (anon.), 3 February 1998: 21.

6. D. L Bosworth, R.A. Wilson and A.J. Young, "Research and Development," *Reviews of United Kingdom Statistical Sources*. Vol. XXVII. Series editor M. C. Fleming. (London: Chapman and Hall for the Royal Statistical Society and the Economic and Social Research Council, 1993). See appendix 1 for a fuller discussion.

	Objective	Data requirement
3	To understand the positioning of the Department's R&D programme in relation to the Medical Research Council.	Total allocations to the MRC.
4	To understand the positioning of the departmental R&D programme in relation to total allocations for publicly-funded civil research and development.	Total allocations to civil R&D. Calculation of departmental R&D allocation as a proportion of the total civil R&D budget.

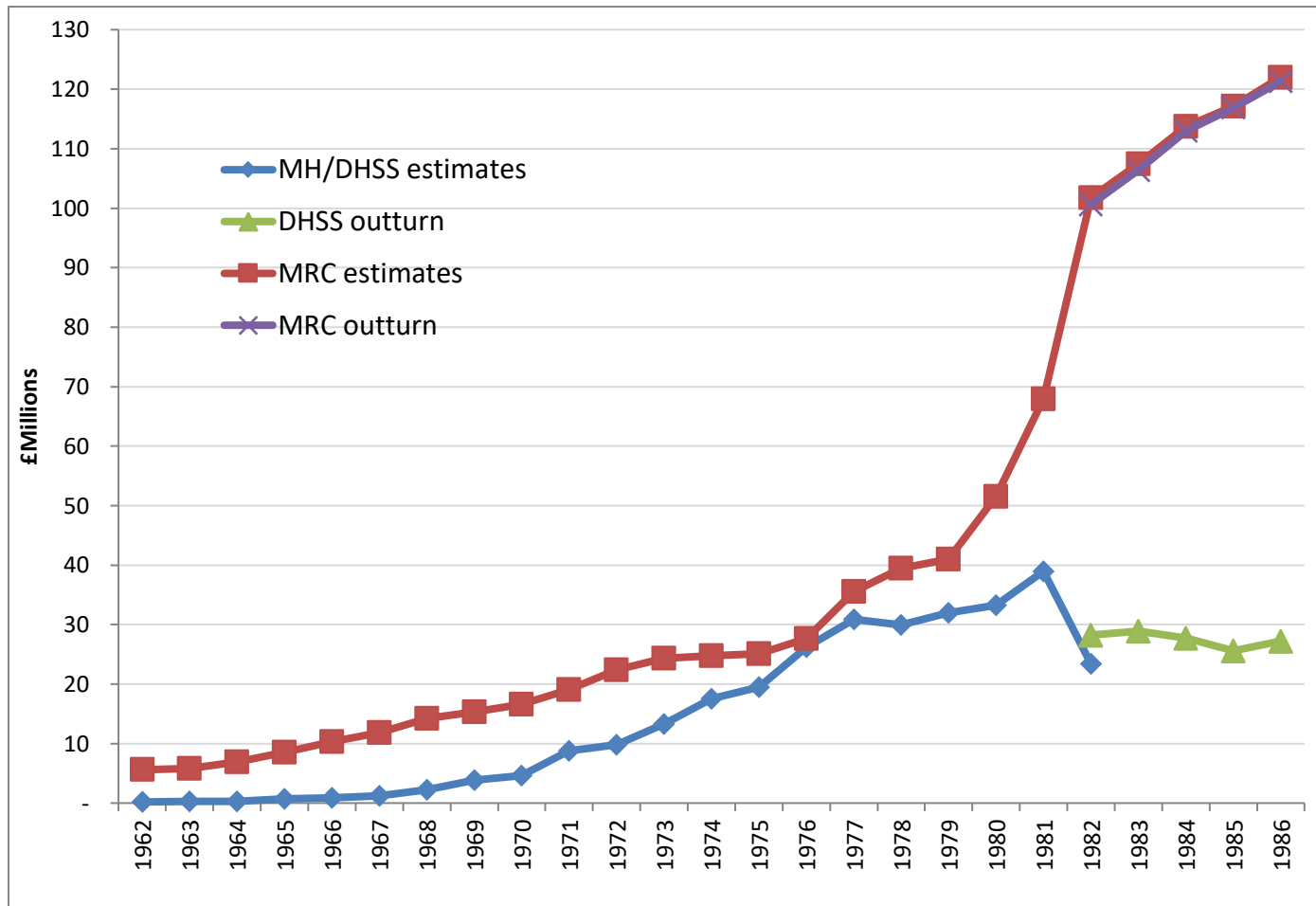
Total health-related R&D budgets

Chart 4.1 provides an analysis of the total levels of resource allocation to both the Department and the MRC for the period 1st April 1961 to 31st March 1986. The same data is shown at a constant 1986 price base in Chart 4.2. Construction of this data series meets the first and third objectives in table 4.1.

Findings can be summarised as follows. In cash terms, the departmental budget rises on a steady upward trend from a negligible baseline in 1961/2 until 1976/7, after which the pace of growth slows before a final upwards kick in 1980/1, followed by a sharp reversal in 1981/2. Thereafter the picture is one of slower growth for the MRC and slow decline for DHSS. The MRC budget starts from a higher base in 1961 but grows less rapidly than that of the Department, with some flattening off in the early 1970s so that the two organisations come close to converging in 1975/6. Thereafter, the MRC budget pulls away from that of the Department with a step increase between 1978/9 and 1981/2, followed by a slower rate of growth thereafter.

Once the series is adjusted to a constant price base (chart 4.2), the overall picture becomes clearer. For the Department, the inverted U-shape curve shows a picture of rapid growth followed by contraction that was rapid in the later 1970s but slowed to more of a steady decline in the 1980s. The MRC curve shows a more complex pattern, with two inverted curves. An earlier initial peak is followed by a decline in the first half of the 1970s. The principal explanation for this is the transfer of funds to the DHSS under the Rothschild reforms. The reversal of these reforms in 1981/2 causes the two lines to sharply diverge, creating a funding gulf even greater than that present in 1961

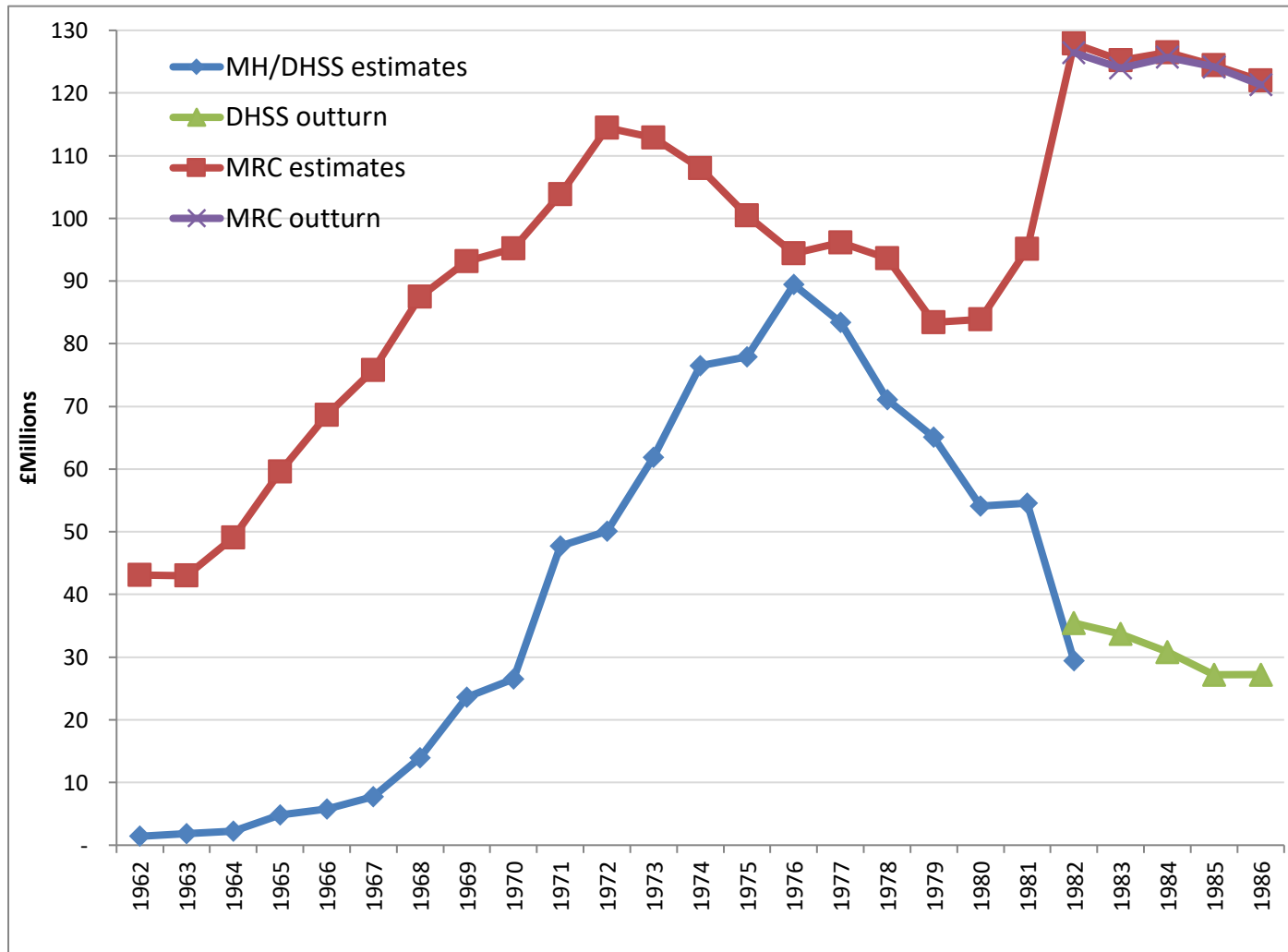
Chart 4.1 Exchequer allocations for research and development, Ministry of Health/ Department of Health and Social Security and Medical Research Council: 1961/2 to 1985/6 (cash)



Note. Financial years end 31 March in the year shown.

Sources: Supply Estimates, Cabinet Office Annual Reports on Government R&D (see chapter 3 and Appendix 1)

Chart 4.2 Exchequer allocations for research and development, Ministry of Health/ Department of Health and Social Security and Medical Research Council: 1961/2 to 1985/6 (constant price base = 1986).



Sources - as chart 4.1

Principal streams

The total departmental R&D allocation (chart 4.1) was disaggregated into its component funding streams. Charts 4.3 and 4.4 show these component streams in cash and constant price terms. The two most significant are further disaggregated into sub-streams (charts 4.5 and 4.6). An overview is given for each stream and sub-stream, numbered to allow cross-referencing to the charts. This part of the analysis satisfies the second objective specified in table 4.1.

1. Research funded through hospital authorities

Under the 1946 Act, hospital authorities had the power to conduct research, but not to assist others so to do.¹ Attribution to research and development of a proportion of the estimate class for the hospital service first occurs in the Memorandum of the Financial Secretary in 1967/8. Some allocations to R&D from the hospital vote had, in fact, been made since 1963/4 but the scale was too small to register in the Memoranda.² The funding of R&D from the hospital vote worked through pre-emption in the resource distribution process. Once the Department had approved a research project the relevant authority was instructed to charge the cost to its revenue account and then to make a matching addition to its estimates. This then resulted in a 'specific additional allocation' to the authority for the project.³ Such allocations were initially made on a recurrent basis, but the Department realised that this would distort resource distribution over time and so switched to non-recurrent additions from 1966/7 onwards.⁴ Allocations from the hospital capital account were made using the same mechanism where material capital expenditure was incurred as part of a research project.⁵

Funding from the hospital allocations grew rapidly, so that by 1972/3 it stood at £6.55 million, making this the largest single funding stream and accounting for half of total R&D allocations. Thereafter this funding stream began to decline and was

1. 9&10 Geo. 6 Ch.81 s.16.

2. MH 166/255, *Research funds: Commitments for 1965/6 and subsequent years*.

3. MH 166/255, *Hospital Revenue Allocations 1967/68 and 1968/69*.

4. MH 166/255, *Operational Research and Hospital Activity Analysis: Adjustment of Hospital Revenue Allocations*, 10 September 1965.

5. MH166/255, *Capital for Research Projects*, 8 March 1966.

overtaken by the allocation for centrally commissioned research (series 2) in mid-decade. This decline does not necessarily mean that less research was being conducted by NHS authorities. Following the 1974 reorganisation of the NHS, more funding was devolved to the newly-created Regional Health Authorities (RHAs). The transition away from historically-based allocations and towards a formulaic basis was accelerated by the establishment of the Resource Allocation Working party (RAWP) in 1975.¹ RHAs were expected to make their own decisions about a range of matters, including locally-initiated research, and to find funding for these from within their recurrent allocations. Consequentially, the Department phased out its practice of pre-empting the NHS budget for research purposes from 1974 onwards.² Health Authorities continued to support research of their own volition and funded from their allocations after this date but the sum involved cannot be quantified from central sources. The DHSS Annual Reports on R&D, introduced in 1973, refer to the existence of research funded by the Health Authorities ‘financed from their Exchequer allocations and/or trust funds, in aid of their own administration’.³ However, this funding is excluded from the financial tables of the report. Not until the Cabinet Office annual review of 1986/7 does the value of Health Authority funded research re-appear, adding £11m to the total spend reported for the DHSS. It can be assumed R&D commitments of between £2m and £11m were made each year between 1973/4 and 1986/7 by Health Authorities. This funding is excluded from data series 1, chart 4.3, because it was not under departmental control and not reported as part of the departmental budget throughout this period. Chart 4.5 shows series 1 disaggregated into its sub-streams. The Estimates include detailed enough data to support this analysis only between 1967/8 and 1973/4.

1(i) Experimental computer projects

The rapid growth in research funded through hospital authorities between 1968 and 1974 was largely due to the expansion of computing research through the NHS Experimental Computer Programme (ECP), which was launched in 1967. ECP

1. Webster, *Health Services since the War*, Vol. 2, 609-613.

2. Stephen M. Davies, "The Experimental Computer Programme: the First Computing Initiative for the National Health Service in England," *IEEE Annals of the History of Computing* 39, no. 2, (2017): 65-79.

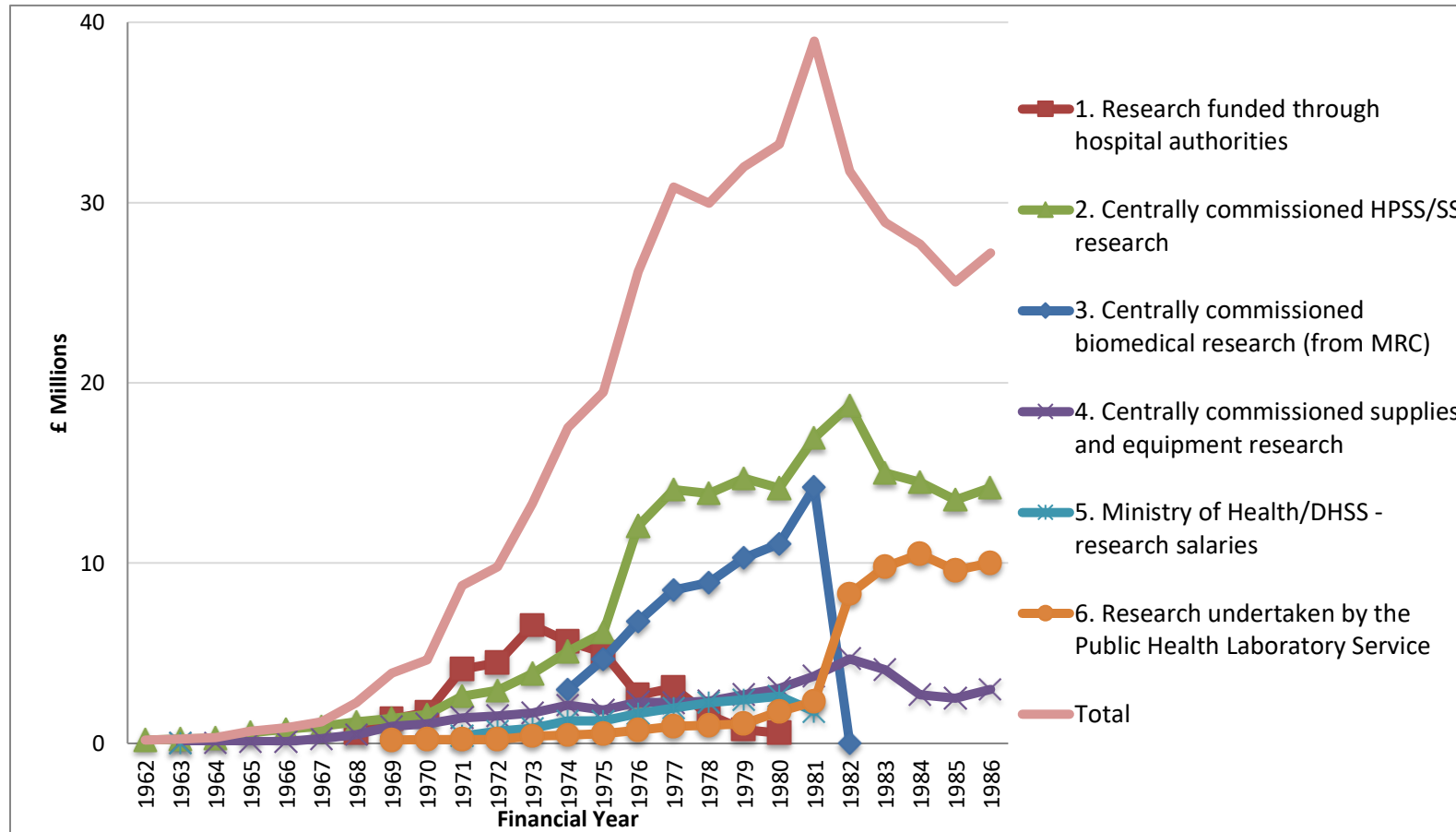
3. Department of Health and Social Security, *Annual Report on Departmental Research and Development* (London: HMSO, 1974), 7.

involved an initial commitment of £14.4 million of capital and revenue support to 15 sites, mostly teaching hospitals.¹ The programme's defining features were its commitment to hospital computing and the ambition of its vision for integrated medical and management information systems. ECP systems, it was envisioned, would be accessible concurrently by multiple users ('shared-time') and respond within seconds ('real-time'). These goals would distinguish advanced hospital systems developed through ECP from existing computers in Regional Hospital Board bureaux, which were used only for routine administrative functions, such as payroll and collation of statistics. These were applications for which software could readily be adapted from other sectors and for which batch processing was adequate. In contrast, the ambitions of ECP required the development of novel software and user interfaces.²

It quickly became evident that computers would increase the running costs of hospitals, rather than produce cash-releasing efficiencies. A review of NHS computing in 1972 devised a scheme that legitimised the phasing out of central financial support for ECP.³ As central support tapered off from 1973/4 onwards, ECP-related costs were picked up by the Hospital Authorities through their general allocations. The Department continued to support a much smaller programme of computer research from its allocation for centrally-commissioned research (series 2 in chart 4.3). The impact of this revised approach to ECP funding was that it rapidly reduced the contribution to the total R&D budget of funding from hospital allocations, of which it was by far the largest component.

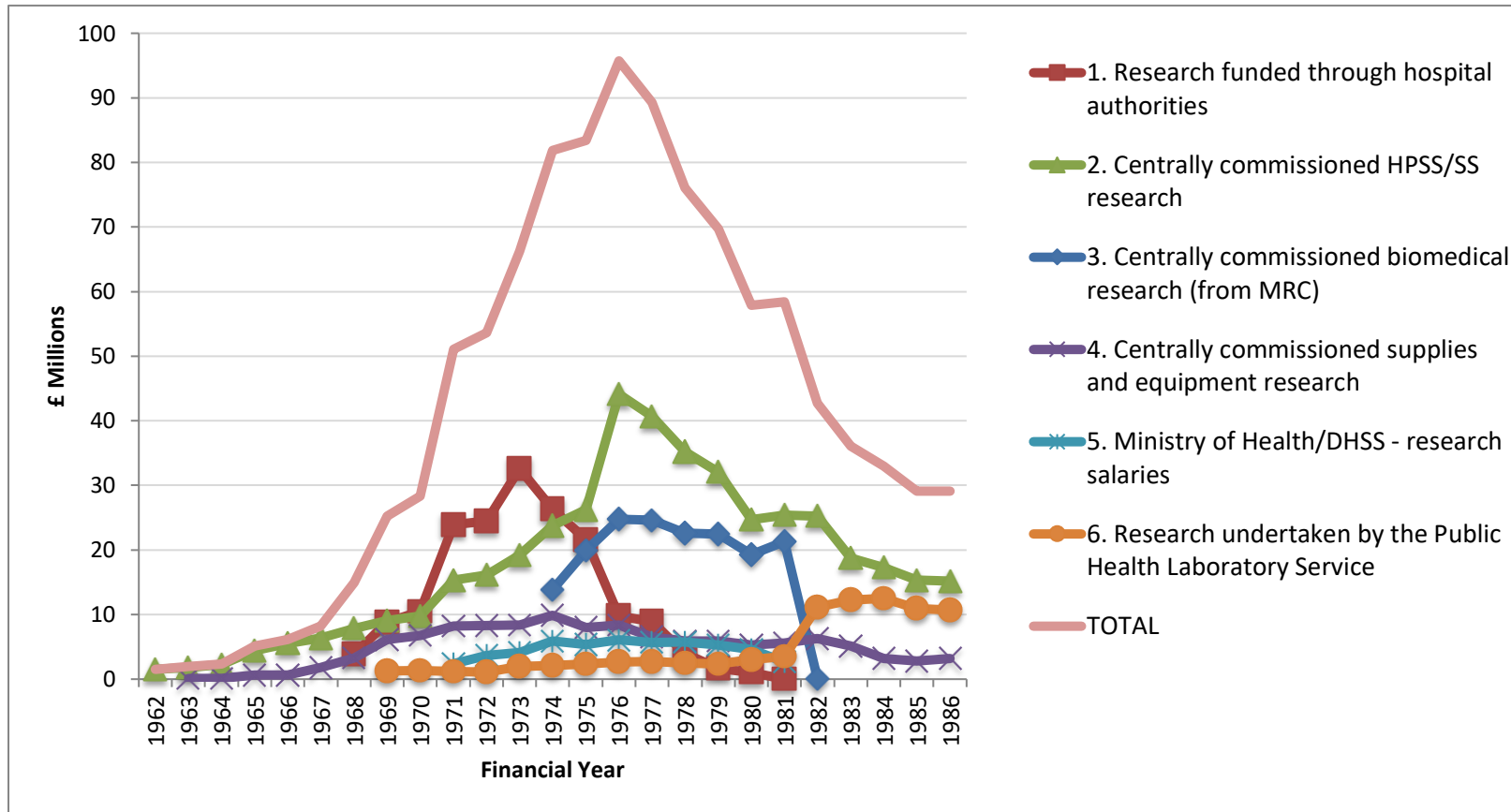
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1. MH 148/457, *Experimental Computer Programme for the NHS*.
 2. D.A. Gledrych, "The Department's Policy and Objectives" in *Medical Computing, Progress and Problems* ed. Michael E. Abrams (London: Chatto & Windus for the British Computer Society, 1970), 345-352.
 3. Department of Health and Social Security, *Using Computers to Improve Health Services. A Review for the National Health Service*. London: DHSS, 1972 (in FD 23/1471).

Chart 4.3 Exchequer allocations for research and development, Ministry of Health/DHSS 1961/2 to 1985/6 (cash)



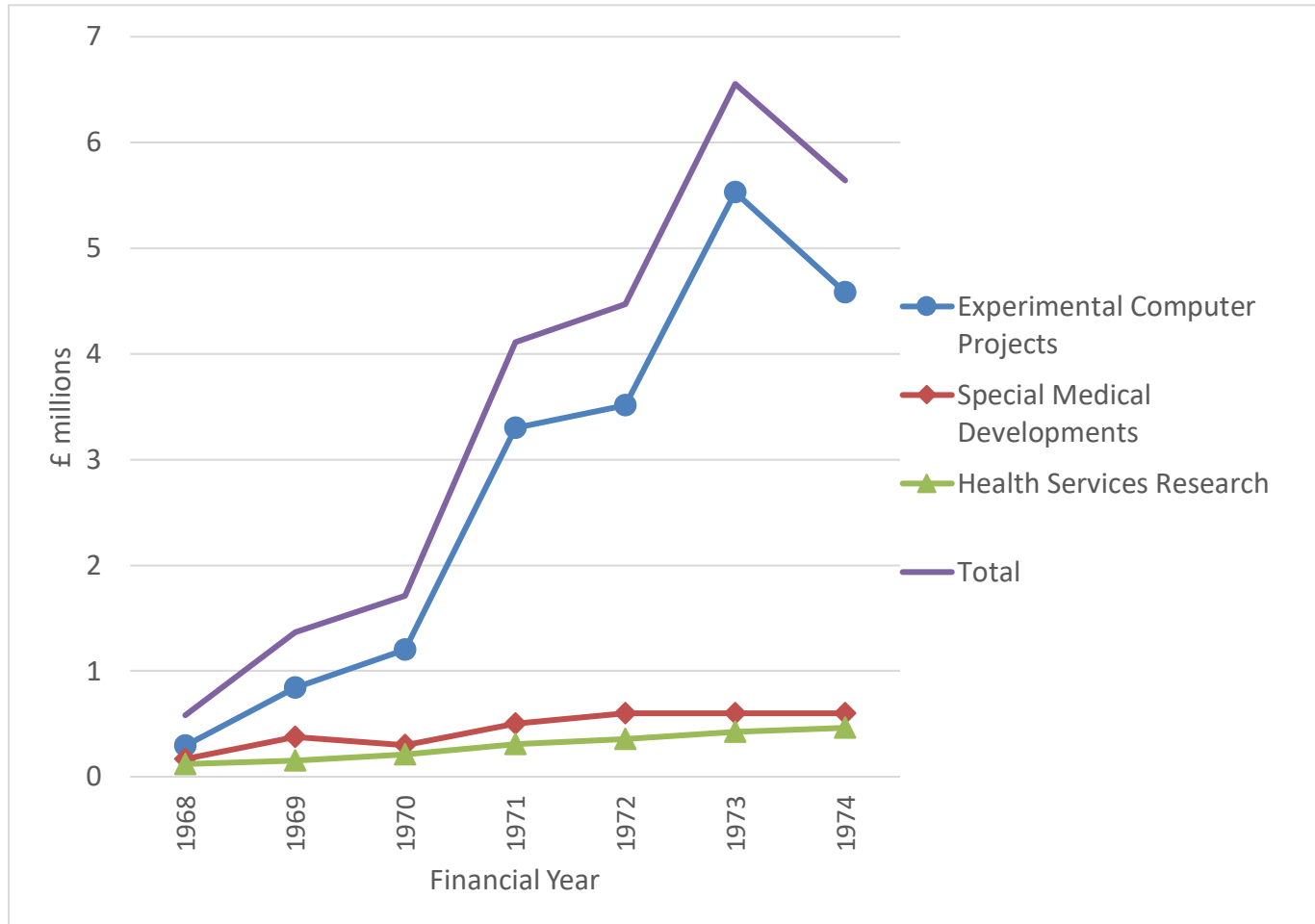
Note. Financial years end 31st March in the year shown. All values are in £'000s and are at original estimate prices. **Sources:** Memorandum by the Financial Secretary to the Treasury (annual) 1961/62 to 1969/70; Memorandum by the Chief Secretary to the Treasury (annual) 1970/71 to 1981/2. Cabinet Office annual reviews of government-funded R&D thereafter. See Appendix 1.

Chart 4.4 Exchequer allocations for research and development, Ministry of Health/DHSS 1961/2 to 1985/6 (constant price base = 1986)



Sources: as chart 4.3

Chart 4.5 Research funded through hospital authorities, 1967/8 to 1973/4 (cash)



Note. Financial years end 31st March in the year shown. All values are in £'000s and are at original estimate prices.

Sources: Memorandum by: Financial Secretary to the Treasury 1967/8 to 1969/70; Chief Secretary to the Treasury 1970/1 to 1973/4. See appendix 1 for full details

1(ii) Health services research by hospital authorities

This funding stream supported larger health services research projects. The rationale for funding such studies from the hospital vote was the same as that for experimental computer projects: the costs involved were too great for a single authority to meet through normal revenue and capital allocations and there was a potential NHS-wide interest in the findings from research.

Between 1964 and 1966 the Ministry of Health published catalogues of ‘hospital studies’ in the form of hospital management circulars, which include listings of both HSR projects and ‘special medical developments’ (see below).¹ These reveal the diversity of projects, both in terms of subjects investigated and in arrangements for funding and delivery. The range of topics, together with orientation of research towards NHS needs, can be gauged from the headings in the 1966 catalogue. These include management, organisation, methods, attitudes and information; assessment of needs and care; staff; outpatient departments; and catering.

Some projects were delivered by hospital authorities alone; many were undertaken in partnership with other research providers including charities, universities, medical schools, the MRC and private companies. Projects were sometimes funded purely from the hospital vote, but this source was often combined with hospital charitable funds or grants from external charities. Some partners, such as universities or the King’s Fund, might also contribute resources in kind by committing staff without reimbursement.

1(iii) Special medical developments

The funding of special medical developments provided a further opportunity for the Department to facilitate experimental development and evaluation of new clinical services through its control of financial allocations to hospital authorities. Without encouragement and additional financial support from the centre, such innovations would be too costly and speculative for individual hospital authorities to pursue on their own initiative. This approach was also an attempt to control the adoption of

1. Circulars HM(64)13, HM(65)21 and HM(66)65, all in MH166/297. Funding source is not detailed in these circulars but can be established for each project by cross-referencing, using a unique project code, to unpublished listings in MH166/255.

costly new treatments by imposing evaluation before general adoption.¹ Services supported in this way included: renal transplantation; choriocarcinoma; infant cardiac services; leukaemia; drug addiction and laboratory automation.²

2. Centrally commissioned health and personal social services research/social security research.

Allocations under this heading were made for the centralised commissioning of research by the Department, acting under powers conferred by s.16 of the 1946 Act. This data series can be further disaggregated using detail provided in the Estimates up to and including 1981/82 and the financial tables in the Cabinet Office Annual Reviews thereafter (chart 4.6). The term ‘health and personal social services research’ (HPSSR) was not widely adopted until about 1968 and in the Cabinet Office reports it is used in a precise way that excludes building and computer research. However, this is the best catch-all description for the research commissioned by the Department from central funds. Modest allocations made for commissioned social security research have also been included in this series.

2(i) Clinical research

Clinical research involves human subjects, typically drawn from patient populations but also including health volunteers. The sub-category ‘clinical research’ in the Estimates is the allocation for the ‘locally-organised research scheme’ (LORS). This scheme was designed to encourage clinical research in the NHS.³ The Department’s hope was that ‘Boards and committees will do all that is in their power to foster clinical research in their hospitals’.⁴ Exchequer funding for such purposes could be supplemented by free-monies. Some LORS projects may have been of a similar nature to those supported from the hospital revenue account, but they were funded under a different vote and without any scrutiny by the Department. They were also of lower value, as the scheme was originally set up with an upper grant limit of £1,000.

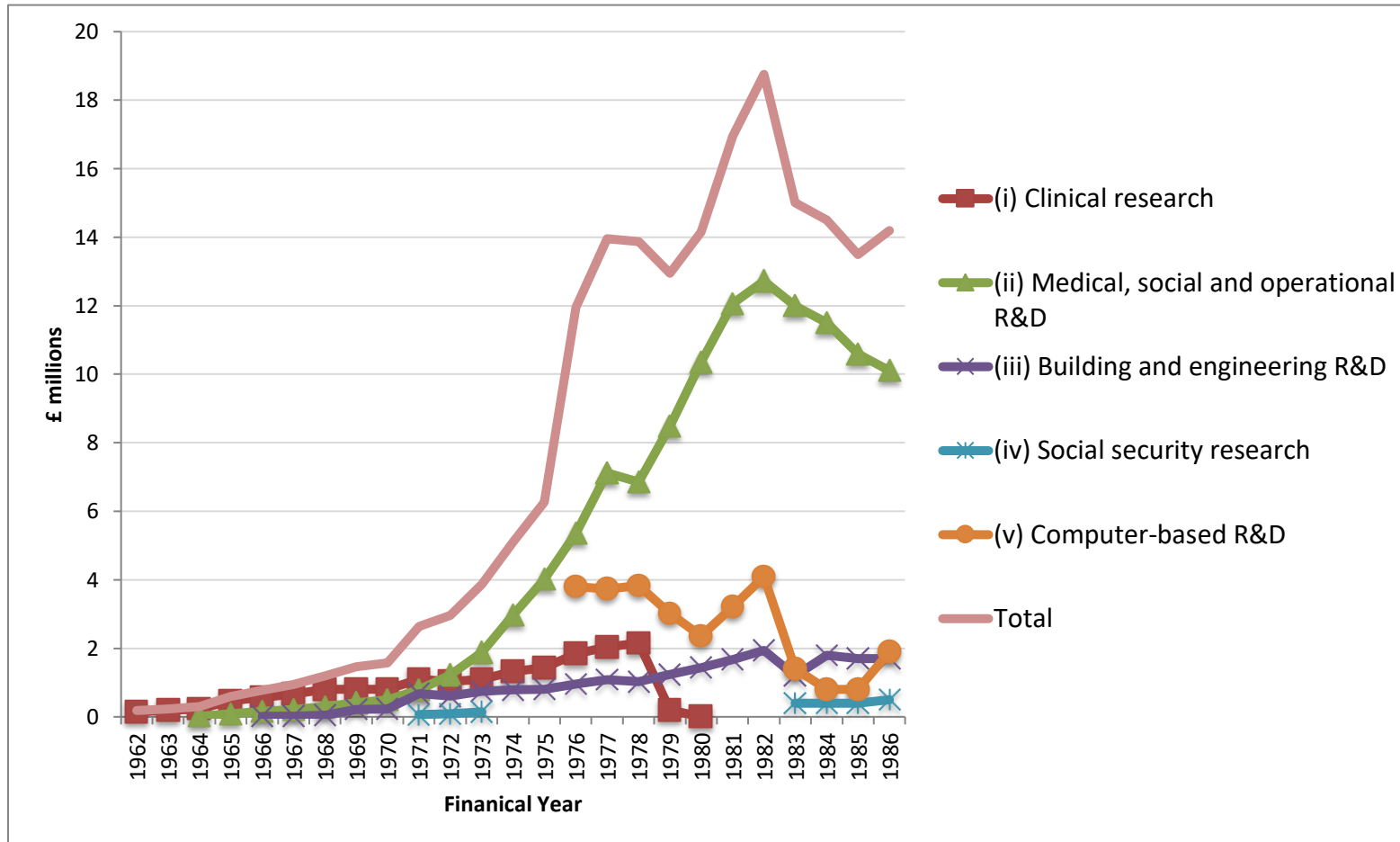
1. Cohen, *The Department’s Role, Portfolio 1*, 15.

2. MH166/255, *Notes from a meeting to discuss provision for special medical developments in 1968/69*, 5 February 1968.

3. The origins of this scheme are discussed in chapter 5.

4. MH166/437, *HM(57)36 National Health Service, Clinical Research*

Chart 4.6 Exchequer allocations, Ministry of Health and Department of Health and Social Security: Centrally commissioned health and personal social services research/ social security research 1961/62 to 1985/6 (Cash)



Notes: all periods are financial years ending 31st March in the year shown. All values are in £'000s and are at estimate prices. Descriptions are by sub-head (4).

Sources: Civil Estimates (annual) 1961/62 to 1969/70; Supply Estimates (annual) 1970/71 to 1981/82. Cabinet Office Annual Reviews of Government R&D thereafter. See appendix 1 for full details.

Between 1964/5 and 1970/1 separate sub-heads for ‘hospital clinical research’ and ‘other clinical research’ are reported, with the latter growing to a maximum of about 15 percent of the total. The emergence of an allocation for ‘other clinical research’ in 1964/5 is consistent with Richard Cohen’s statement that in that year an ‘allotment of funds’ was made for ‘GP and local health and welfare services’.¹ Internal documents show that allocations for clinical research followed the tripartite structure of the pre-1974 NHS. For example, in 1965/6 an allocation of £105,000 was made for hospital-based research, £20,000 for General Practice research and £28,000 for Local Authority Research.² These sums may have been modest, but they indicate a commitment to develop health research beyond the medical schools and hospitals.

This budget line had grown to over £2m per annum by 1st April 1978, on which date full responsibility for the scheme was devolved to Health Authorities, in line with the principles of ‘maximum devolution’ adopted in the 1974 reorganisation.³ Thereafter the size and nature of spending by Health Authorities becomes invisible in the central sources before re-appearing in the 1987 Cabinet Office annual review at a level of £11m, as discussed under series 1. The latter source does not provide sufficient detail to distinguish between clinical and non-clinical research.

2(ii) Medical, social and operational R&D for health and welfare

This sub-head first appears in the Estimates for 1963/4, when it is described as ‘operational research by outside organisations’. Growth in this category contributes significantly to the second point of acceleration in the overall programme in 1970/1 and was still accelerating in 1972/3. The appearance of this new stream of allocations is consistent with the account of Richard Cohen, who says that ‘approval was obtained from the Treasury in 1963/4 for the allocation of funds for ‘operations research’ (used here in its widest and non-technical sense) in the hospital service’.⁴ A supplementary note to the Estimates explains the intention in creating this new stream.

1. Cohen, *The Department’s Role, Portfolio 1*, 7.

2. MH 166/255, *Research Funds: Commitments for 1965/66 and subsequent years*.

3. Department of Health and Social Security. *Research and Development Report and Handbook* (London: HMSO, 1977), 87.

4. Cohen, *The Department’s Role, Portfolio 1*, 7.

From 1963/64 on, provision has been made for the financing by the Department of approved health service studies, trials, experiments and research conducted by outside bodies which bear upon the need, quality and availability of care for patients and the efficiency of the organisation for providing it. A number of projects are in progress or in preparation. The projects generally deal with administration and non-clinical aspects of the Health Service but in some cases both non-clinical and clinical elements occur.¹

Both parts of the original descriptor are significant. 'Operational research' was used as shorthand for a specific discipline; but also for research into the operations of health services. The reference to 'outside organisations' indicates that this was a funding stream explicitly intended the commissioning of research from external suppliers.

Descriptors in the Estimates for this allocation line change more frequently than any other. In 1965/6, the descriptor was changed to 'health and welfare services research by other organisations' and then in 1971/2, to 'medical, social and operational R&D for health and welfare' and again in 1972/3 to 'medical, social and operational R&D for Health and Personal Social Services (including child care)'. In Chart 4.6, the descriptor has been standardised as 'medical, social and operational R&D'. The Department included projects funded from this source in its list of hospital studies, where they are strongly represented in the category for 'management, organisation, methods, attitudes and information'. However, clinical projects were also funded from this allocation and it appears that the Department took a pragmatic approach towards funding HSR projects from either this source or from the hospital revenue allocation, presumably based on budget availability and the extent to which the project was locally or centrally-initiated.²

2 (iii) Building and engineering research and development

Growth in this funding stream, which first appears in 1965/6, contributed significantly to the second phase of acceleration in the overall programme. The

1. H.C. Papers Civil Estimates Class V1-16 1964-65 Amending Note July 1964 (copy filed in MH 166/255).

2. MH 166/255, *Research projects funded by the Department*.

purpose of this stream is self-evident from the description. Goodman, later Chief Architect at the Department, gives a flavour of its practical orientation.

Our earlier development projects have several common themes: the search for a universal hospital structure, the study of flexibility and adaptability, the study of hospital communications, the integration of structure and engineering services, and the satisfaction of all these requirements within acceptable cost limits.¹

Much of the work was undertaken by in-house professional staff in the Architecture and Engineering branches of the Department. For example, prompted by the planning of a new hospital at Greenwich the Ministry undertook a project, in partnership with the local hospital authorities, to refine the design briefs for pathology departments, operating theatres and wards. Some studies were undertaken by RHBs on their own initiative, although these do not appear in the listings of projects supported by the hospital revenue account and were presumably funded out of mainstream allocations. Others were jointly supported.² There was very little use of external contractors in this stream of research, although some work was undertaken by the Building Research Station.³

2 (iv) Social security research

Social security became a responsibility of the Department after the Ministries of Health and Social Security were combined in November 1968. The Ministry of Social Security had its own research and statistics branch and DHSS became responsible for ongoing projects. There was a significant overlap between social security research and social research into the provision of health and welfare services. The level of spending on SSR was always modest compared to other streams, rising to a peak of £600,000 in 1988. The gap in the series between 1974 and 1982 is due to reporting conventions, with the programme most likely having been overlooked in reporting due to its relatively low level of resourcing.

1. H. Goodman, "Building and engineering", in *Portfolio 1*, ed. McLachlan (1971): 205-211.

2. HM(66)65

3. The Building Research Station (later Establishment) was a unit of the Department for Scientific and Industrial Research until 1966 and the Ministry of Technology thereafter.

2 (v) Computer-based R&D

Details of spending in this stream of activity can be gleaned from the departmental annual R&D reports from 1973 onwards. Much of the expenditure through this stream took the form of support for the ECP as central support was phased out after 1974. However, the Department also initiated new, smaller projects in areas such as pathology, radiotherapy and nuclear medicine.¹ By the 1980s the Department had moved away from supporting experimental development in the field and was concentrating its resources on central units: Centre of Information Technology and Corporate Data Administration Centre.

3. Centrally commissioned biomedical research

A dedicated funding stream for commissioning of biomedical research was phased in under the Rothschild reforms over the four years starting in 1973/4. As announced in the 1972 White Paper, *Framework for Government Research and Development*, one quarter of the MRC budget (the proportion attributed to applied research) was transferred to the DHSS over four years, beginning in 1973/4. An initial transfer of £3 million in that year grew to £8.5 million in 1977/8. This budget line continued to grow thereafter in cash terms. The DHSS invested considerable effort in developing mechanisms for agreeing commissions with the MRC. However, it found itself in a largely reactive role and, acknowledging this, considerably simplified arrangements for commissioning from the MRC after 1977. The MRC was then able to argue that Rothschild had added little value and should be reversed. This argument prevailed and on 1 April 1981 the biomedical research budget of £14 million was transferred back to the MRC via the Department of Education and Science.

4. Centrally commissioned supplies and equipment research

A proportion of the estimate for the ‘hospital service – supplies and equipment’ is first attributed to R&D in the Memorandum of the Financial Secretary in 1962/3. Thereafter this category grows steadily, reaching a peak in 1973/4 with a budget of just over £2m or 12 percent of the total budget. The greater proportion comes under a sub-heading of ‘assessment of hospital supplies and equipment’, which included purchase of items where necessary. The balance falls under various headings relating

1. Department of Health and Social Security, *Research and Development Report and Handbook* (London: HMSO, 1979), 20.

to personal aids for disabled people, for example ‘development of hearing aids by the GPO’. After 1971, all previous headings relating to disability aids are replaced with a single sub-head for the Biomechanical Research and Development Unit (BRADU).

The purpose of the supplies and equipment programme was ‘the development of equipment and supplies which will improve the care of patients’. This included support where it was apparent that industry alone would not bear the full costs of development, either because these were too great or because the clinical value of a novel technology was unproven. In addition, the programme sponsored the evaluation of existing devices. BRADU undertook development work in artificial limbs, prostheses and wheelchairs. Externally commissioned work was undertaken by a mixed economy of providers, including universities, industry and government research establishments. Examples of equipment developed by industry with departmental support include cardiac pacemakers, gamma cameras, ultrasound scanners, computerised tomography scanners, infusion pumps and various patient monitors.¹

5. Ministry of Health/Department of Health and Social Security – research salaries

From 1971/2 onwards, the Memorandum identifies a proportion of the vote for the establishment costs of the Department as research related. By 1973/4, this had risen to £831,000, or 6 percent of the total budget. No further detail is provided in the Estimates and it is not entirely clear whether this sum solely represents the costs of staff in in-house research units or whether it also includes the costs of staff managing the research programme. From the sums involved, it seems most likely that it is the former.

6. Research by the Public Health Laboratory Service

The primary role of the Public Health Laboratory Service (PHLS) was routine specimen analysis and disease surveillance but through this work the service was also able to make an incidental contribution to research.² Scientists based in the PHLS also sought to undertake additional, non-incidental research projects, but for this they had to compete alongside other institutions for funding, whether from the

1. E. L. Stevens, “Medical Equipment and Supplies: Research and Development,” *Portfolio* 2, 123-133.

2. Thomson, *Half a Century*, Vol.2, chapter 13.

Department or from elsewhere.¹ The trend in this line was one of modest growth in the range of 3 to 5 percent of total departmental R&D budget until 1981/2, when there is a step increase up to around thirty percent. As this coincides with the change of source from Estimates to Cabinet Office annual reviews this is almost certainly the result of a change in reporting conventions that allowed the PHLs to describe a much greater share of its work as being research.

Growth in the wider context

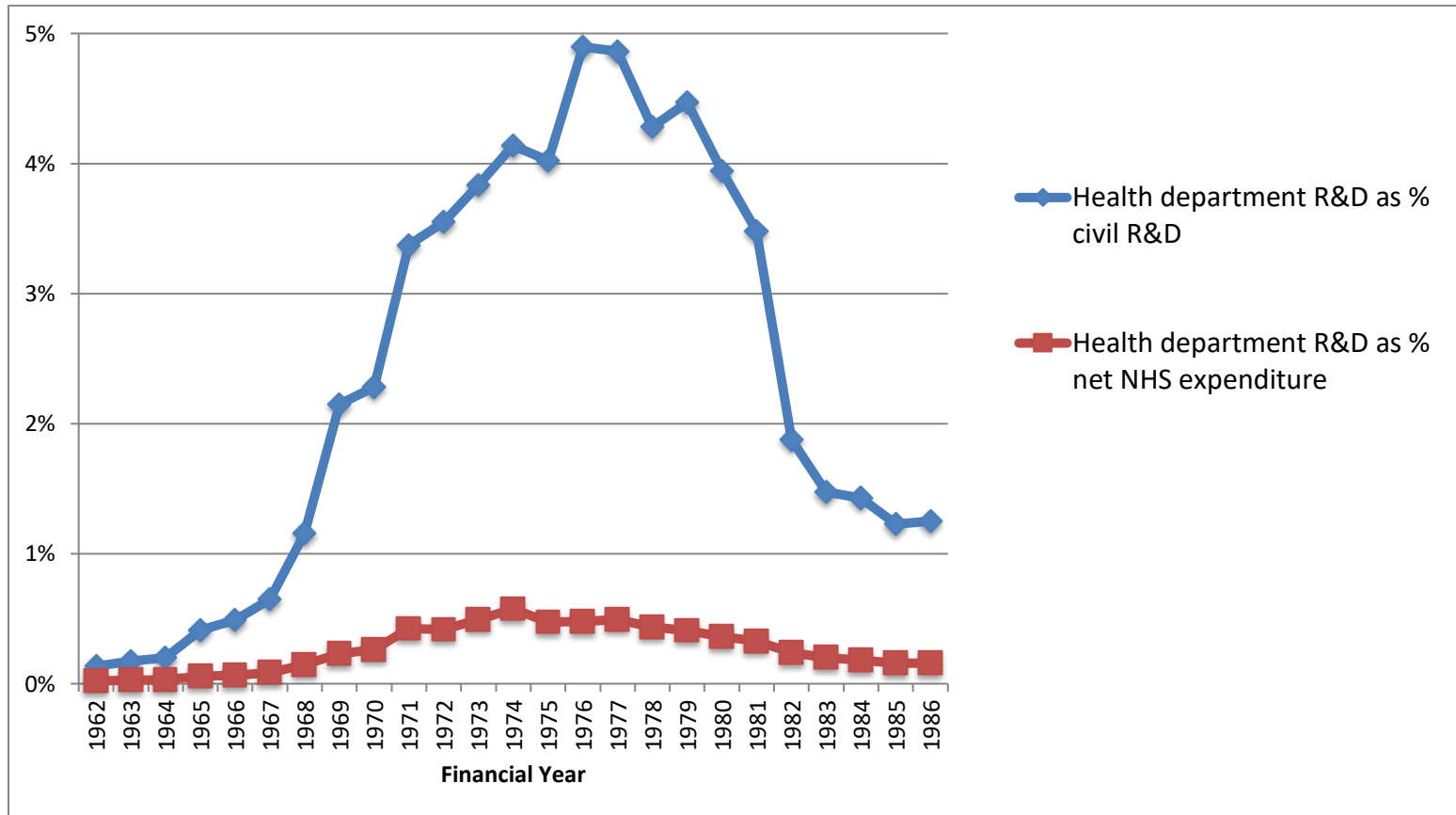
The final objective for the longitudinal analysis was to place the patterns of growth in health-related research and development within the context of trends in total government spending on civil research. This will establish how far the former was truly exceptional, rather than simply a reflection of growth in the total civil R&D budget. The Wilson governments of 1964-1970 were committed to a rebalancing of resources from defence to civil research, so the latter must be considered as an explanation for the programme's growth spurt.² Chart 4.7 shows the R&D budget of the health department expressed as a percentage of the total government civil R&D budget and of the total NHS budget. The health departments' share of the overall civil R&D budget grew from 0.1 percent in 1961/2 to a peak of 4.9 percent in 1976. As a share of the net NHS budget, the R&D budget rose from 0.02 percent to a peak of 0.57 percent in 1974.

The R&D budget of the health department thus grew at a much faster rate than that of the global civil R&D budget prior to 1976. Beyond this peak, there was an equally steep decline to a low of 1.2 percent in 1985. Between 1962 and 1976 the MRC share of the civil research budget rose from 4 to just over 5 percent, which is another way of expressing the finding from chart 4.1 that the Department looked set to overtake the MRC in the immediate aftermath of Rothschild. But in the period after 1976 the MRC managed to sustain its share of the civil R&D budget in the range of 5.5 to 6 percent, in contrast to the decline of the DHSS budget.

1. MH 166/255, *Public Health Laboratory Service: research finance*, 16 July 1965.

2. Edgerton, *Warfare State*. Richard Coopey, "Industrial policy in the white heat of the scientific revolution," in *The Wilson Governments 1964-1970* eds. Richard Coopey, S. Fielding and N. Tiratsoo, (London: Pinter Publishers, 1993), 102-122.

Chart 4.7 Growth in health-related research as percentage of civil research and NHS budgets 1961/2 to 1985/6



Sources: *Global civil R&D budget:* Council for Scientific Policy Cmnd. 3007 1961/62. Memorandum of the Financial/Chief Secretary to the Treasury 1967/68 to 1980/81. Global budget interpolated 1962/3 to 1966/67 (see appendix 1). Cabinet Office Annual Reviews of Government R&D 1981/2 onwards. *NHS Budget Harker. NHS Funding and Expenditure.* SN/SG/724, House of Commons Library, 2012.

Concluding discussion

The data reveals a picture of rise and partial reversal over a quarter of a century, which is most evident where allocations are presented on a constant price basis. The rate of growth between 1961 and 1976 was exceptional, even by the standards of an expansionary period for publicly-funded R&D. The health department moved, over fifteen years, from insignificance and invisibility in R&D to becoming a significant actor among civil departments. Over the next decade, it slipped backwards. The most obvious explanation for this pattern is the Rothschild reforms and their subsequent reversal. However, these events only contribute directly to the data between 1973/4 and 1981/2, or for less than one-third of the total data series. If the biomedical research commissioning stream is stripped out, the real-terms picture remains one of sustained growth in R&D investment until the mid-1970s, followed by steady decline until 1986. Biomedical research funding never amounted to more than 36 percent of the total R&D budget (in 1980/1). Activities in other streams grew strongly before Rothschild and were maintained thereafter.

These other streams possess two notable characteristics: they are diverse, and they include a heavy commitment to development as well as research. The range of R&D supported by the Department included: health and personal social services research; clinical research; social security research; experimental computer projects; supplies, equipment, building and engineering research and development. Expansion in the experimental computer programme, building and architecture research and the development and evaluation of medical equipment contributed significantly to the overall pattern of rapid growth in the decade after 1965. Most of the activity in these streams would fall within the current definition of experimental development, rather than basic or applied research.

Systematic work drawing on knowledge gained from research and practical experience that is directed to producing new materials, products and devices; to installing new systems and services or to improving substantially those already produced or installed.¹

1. OECD. *Frascati Manual. Proposed Standard for Surveys on Research and Experimental Development* (Paris: Organisation for Economic Cooperation and Development, 2002).

The data also reveals a shift in the relationship between the Department and the NHS. Before 1974, the Department relied significantly on pre-emption of the hospital vote for the funding of research. After 1974, this practice was discontinued, except to fund the run-out costs of existing projects. This change in funding practice may have been associated with a changed interaction between the Department and NHS bodies for R&D commissioning.

The quantitative analysis offers a clearer sense of periodisation than that available from the literature alone. The programme's history can be divided into four periods. These are: pre-history and emergence (before 1965), growth in the 'golden age' (1965 to 1973), an era of instability (1973 to 1982) and an era of slow decline (1983 to 1986). This periodisation is broadly followed in the chapters that follow, with some overlap where it assists the narrative. There is one exception. In dealing with the era of instability, close attention is paid to the critical junctures at its beginning and end – short periods when organisation and policy underwent notable change. The rationale for this, in relation to the Kogan corpus, has already been briefly discussed in the literature review but is set out more fully in chapter 8.

5. Origins: 1948 to 1965

A decade or more after the creation of the NHS, there had already been a great deal of informal criticism of the inability of the Health Department to look at its own activities and the distinction was drawn between a commercial organization with its incentive to innovation and improvement and a civil service department adjusting and controlling the status quo rather than planning development in the future. Outside experts, for example in social medicine and medical statistics, expected research in aid of planning but did not perhaps fully recognize that they were the very people to do this.¹

This chapter explores why the engagement of the Ministry of Health with research and development was so minimal before 1960, and why this situation began to change over the next half-decade. It begins by examining MRC ascendancy before 1948, and the consequences of this for the Ministry. It shows how the coming of the National Health Service initially reinforced the dominance of the health research state by the MRC. It argues that this dominance was the mirror image and principal cause of the Department's R&D inactivity before the early 1960s.

This analysis of power in the health research state begs the question as to why, regardless of MRC dominance, the Ministry began to develop its own R&D programme after 1961. If the structural dominance of the MRC, together with its claims to control over the whole field of medical research (broadly defined), remained unchallenged, then what prompted the Department to begin this new activity, and what made this development acceptable to the MRC? It is argued that this altered situation was not brought about by any re-appraisal of the formal relationship between the two organisations, nor by any changes in national science policy, regardless of reform between 1959 and 1965. Instead, the origins of the Ministry's programme lay in the politics of NHS investment, efficiency and control. From this context, a commitment to 'operational research' emerged that soon broadened into a wider engagement with service-relevant medical and social research. The politics of NHS investment and efficiency gave rise to calls for a

1. Cohen, *The Departments Role, Portfolio 1*, 7.

greater departmental capacity for systematic investigation, including but not limited to R&D. Non-government organisations led the way by funding pioneering studies in health and personal social services and by advocating a greater departmental capacity for systematic investigation. This chapter thus speaks to the theme of the development of the health research state as a response to the political pressures created by rising expectations of the NHS.

The health research state before 1965

Ministry and MRC before the NHS

The history of the MRC over its first half-century has been extensively documented.¹ Only the key points are repeated here. The National Insurance Act of 1911 created a national fund for medical research.² The Act was worded somewhat ambiguously and could have been interpreted as requiring the new fund to be used solely for research into tuberculosis. However, a Treasury committee decided that the body responsible for this new fund should be empowered to act in any field of medical science and across the whole of the United Kingdom. It followed that the Committee of Medical Research, when established in 1913, was given a national remit for the whole field of medical research.³ The new committee sought from the outset to secure a high level of scientific self-governance and a minimal level of accountability to government. During the reconstruction period after the First World War, the committee successfully resisted proposals that it should become accountable to either the Ministry of Health (established 1919) or the Department of Scientific and Industrial Research (1916). It argued that the former arrangement would subordinate science to the needs of a single administrative department and the latter would subordinate medical research to an organisation focused on the industrial application of research. At the root of these arguments was a view that ‘men of science’ should not be harnessed to the instrumentalist purposes of government, regardless of funding from the public purse.

1. Thomson, *Half a Century*, Vol. 1. Austoker and Bryder, *Historical Perspectives*.

2. Section 16 (2) of the Act laid down that 1d per insured person should be set aside for sanatorium expenses but that the Insurance Commissioners might retain the whole or any part of that contribution for the benefits of research.

3. Linda Bryder, “Tuberculosis and the MRC,” in Austoker and Bryder, *Historical Perspectives*, 1-21.

...a large administrative department necessarily has certain declared policies and urgent day-to-day requirements, both tending to create pressures of a kind inimical to the initiative and perspective essential for long-term research. In contrast, the Committee had already achieved independent power, in its scientific discretion, to frame and execute its programme for the advancement of knowledge; even a suspicion of bureaucratic control or political expediency would have destroyed the Committee's authority and have lost it the sympathetic cooperation of scientific men.¹

Such views prevailed because a coalition of the scientific, administrative and political elite was persuaded of the case for scientific self-governance. Members of this coalition included Robert Morant, first permanent secretary at the Ministry of Health and Christopher Addison, Minister of Reconstruction from 1917 and later first Minister for Health.² The Committee on the Machinery of Government ('Haldane Committee') opposed the subordination of the Medical Research Committee to the Ministry of Health and recommended accountability to the Lord President of the Privy Council instead. This arrangement, which was also adopted for the Department of Scientific and Industrial Research, provided a semblance of accountability to government whilst minimising *de facto* political oversight. When the Medical Research Committee was reconstituted as the Medical Research Council in 1920, these oversight arrangements were retained. The arguments used to justify the governance arrangements for the MRC, DSIR and other research councils have subsequently been elevated to orthodoxy as the 'Haldane Principle' by defenders of scientific freedom.³

The Council was, from the first, highly assertive in its claim to control over all aspects of medical research in the United Kingdom, however funded. The uncompromising insistence on this principle of its first Secretary, Walter Morley Fletcher (1873-1933), led to conflict with the charitable sector, the Royal Colleges and the Ministry of Health. The establishment of the British Empire Cancer Campaign in the 1920s, for example, 'took place amongst angry arguments, acrimonious disputes, conflicting interests and power struggles concerning the

1. Thomson, *Half a Century*, Vol. 1, 35

2. Both had also served on the Treasury committee on Tuberculosis. Morant claimed personal credit for ensuring that this committee recommended a broader scope of research and a UK-wide remit for the MRC. See Thomson Vol 1, 21.

3. Edgerton, David "The 'Haldane Principle' and other invented traditions in science policy", *History and Policy Papers online*, 2 July 2009.

crucial question of who should control the direction of biomedical research'.¹ The boundary between the MRC and the Ministry of Health for research activities was not at first formally defined but could be inferred from the Haldane Committee, which drew a distinction between research supervised by administrative departments and that undertaken for general government purposes. The former was seen as properly comprising surveys and statistical work and also research into public health questions initiated by a range of departments and the Local Government Board. Such 'intelligence and research' was not, in the view of the Haldane Committee, undertaken 'entirely in the pursuit of new truth', despite which it was acknowledged that 'this element enters into each of them in some degree'. To sustain the surveying and statistical analysis role assigned to them, Haldane also recommended that the administrative departments maintain their own capacity for 'intelligence work'.

all Departments which have already made distinct provision for intelligence work should continue to do so, and that many which have not might do so with great advantage ; that most Departments must continue to provide themselves with the organisation which they need for the collection and collation of statistical material acquired in the course of their administration ; and that many Departments must retain under their own control a distinctive organisation for the prosecution of specific forms of research.²

In practice, it proved difficult to discern the boundary between the Ministry's need for 'intelligence' and the Council's programme for the advancement of new knowledge, leading to friction between the two organisations. In an attempt to ease tensions, a 'concordat' was drawn up in 1924, setting out respective spheres of interest.³ The Ministry was to confine its activities to surveys and the propagation of existing knowledge 'with a view to its application or applicability to practical uses'; population health and environmental surveys; investigations into the administrative work of the Ministry itself; and 'such investigations as can best be carried out by the Ministry in the interests of public health administration, applied knowledge or medical services'. The MRC was to undertake pure and applied research in the

1. Austoker, *Walter Morley Fletcher*. Fletcher was Secretary of the Committee and then Council from 1913 until his death in 1933.

2. Cd. 9230 *Report of the Machinery of Government Committee*, (Ministry of Reconstruction London: HMSO, 1918), para. 57.

3. This was formalised in 1928 when it was endorsed by the Research Co-ordination Subcommittee of the Committee of Civil Research.

medical sciences. The concordat proved an imperfect remedy and the Ministry and Council continued to clash, for example over vaccination policy and nutrition research.¹ The Ministry was not completely inactive in research during the inter-war period, publishing ‘Reports on Public Health and Medical Subjects’ between 1920 and 1939. This series, which ran to 90 issues, was produced by the small staff of the Ministry’s Central Bacteriological and Chemical Laboratories and represents an exception to the general picture of research inactivity in the inter-war period.²

Although Fletcher was a staunch supporter of basic research, he also recognised that clinical science was essential to his ambition for a comprehensive programme of medical research. Prior to 1948 the Council found itself unable to sustain clinical research beyond a handful of centres.³ Obstacles included the requirement for access to a clinical population; lack of support from the universities and medical schools; and the requirement that ‘whoever is in medical charge must be at the same time a skilful physician or surgeon and a research worker with a broad scientific outlook’. There was no research training available for clinicians outside a small number of MRC-supported units and no career track for those who did avail themselves of such training. Before the NHS, the consultant staff of teaching hospitals was employed on an honorary basis and relied on private practice for earnings, so participation in clinical research generally meant a reduced income. The Council considered, but rejected, the idea of setting up its own research hospital as a response to these obstacles.⁴

Ministry and MRC after 1948

The establishment of the National Health Service prompted a revisiting of the concordat.⁵ The initial conclusion, reached in 1949, was that no change was needed. However, growing recognition of the opportunities arising from the new service soon

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1. Linda Bryder, “Public health research and the MRC” and Celia Petty “Primary research and public health: the prioritization of nutrition research in inter-war Britain” both in Austoker and Bryder, 59-81 and 83-108.
 2. Bryder, *Public health research*, 70. These laboratories were subsumed into the MRC-managed Emergency Public Health Laboratory Service in 1939.
 3. Booth, Christopher C., “Clinical research” in Austoker and Bryder, 205-241.
 4. Thomson, *Half a Century*, Vol. 2, 13-18.
 5. MH 123/498.

prompted re-appraisal.¹ The MRC annual report for 1951/2 includes a section on the advent of more propitious circumstances for clinical research.² This begins by arguing that the Council had always intended to make clinical studies its primary focus, but that practical and ethical difficulties in accessing patients, together with limitations in the techniques available, had held back progress.³ In view of this, the Council had directed the bulk of its funding towards laboratory research in the inter-war period. In 1939, the Council was only supporting three clinical research units. The first-founded and most influential of these was that directed by Thomas Lewis at University College Medical School. The commitment to clinical research increased during and immediately after the Second World War, so that by 1952 the MRC was funding 18 clinical research units at a cost of £375,000 a year.⁴ These produced a cadre of trained clinical investigators and established some momentum which, when combined with the new conditions created by the NHS, gave rise to unprecedented opportunities for the expansion of clinical research, as explained in the annual report.

Thus there arose two separate and unrelated reasons for examining the provision for clinical research. The first was the growth of scientific knowledge, and the supply of trained men, had reached the stage at which clinical research could be developed, with confidence, on a scale commensurate with the need; the second that the situation arising from the creation of a National Health Service required the devising of new arrangements to provide the necessary facilities for clinical research.⁵

In June 1951, the Standing Medical Advisory Committee of the Ministry of Health invited the MRC to enter discussions about future arrangements for clinical research in the NHS. These were to be taken forward by a joint sub-committee, including representation from the Advisory Committee for Medical Research in Scotland and chaired by Sir Henry Cohen (1900-1977).⁶ At the end of 1952, the Secretary of the MRC, Harold Himsworth (1905-1988), advised Treasury that the

1. Thomson, Vol. 1, 72. Also MH 123/498.

2. Cmd. 8876, *Report of the Medical Research Council for the year 1951-52*, (Committee of Privy Council for Medical Research. London: HMSO, 1953), 3-6.

3. For a more critical view of the MRC's approach to clinical research in the inter-war period see Bryder, "*The Medical Research Council and clinical trials methodologies*".

4. Itemised in annex to *Medical Research in Relation to the National Health Service*, report to the Advisory Council on Scientific Policy, March 1953, T227/1031.

5. Cmd. 8876, 5.

6. Eminent medical practitioner, active in the public affairs of the profession. Made Baron Cohen of Birkenhead in 1956.

sub-committee had reached agreement and was ready to make its recommendations to Ministers.¹ He enclosed a memorandum setting out a ‘blueprint’ for the future of clinical research. With minimal amendment, this was published as a report, usually referred to as ‘the Cohen Report’, in 1953.² The Cohen Report adopted a very broad definition of clinical research as encompassing not only studies with patients as their subjects but also population-based studies. This was consistent with the view of the MRC, which included epidemiology, medical statistics and social medicine in its definition of clinical research.³

Throughout the report, we use the term ‘clinical research’ to imply research into the mechanisms and causation of disease, including its prevention and cure. Thus, in the sense in which we use the term it covers not simply research into patients in hospital but also field studies in epidemiology and social medicine and observations in general practice. We wish it to be clearly understood that these definitions apply throughout this document.⁴

The report recommended, as a priority, the setting up of a central organisation for clinical research in the form of a clinical research board (CRB) of the MRC. The Council was to be the financial authority for centrally-organised clinical research and employ researchers working on the projects it funded. The report further recommended a scheme for decentralised research at the level of the hospital authorities. This was to be funded from NHS allocations or from free monies, the availability of which was to be considered when making allocations to hospitals. The decentralized scheme was intended to fund only ‘minor projects’ (costing less than £1,000), initiated by NHS clinicians. Local research committees, which every hospital authority was to set up in agreement with their associated university or medical school, would decide which projects to fund. The Ministry of Health was to submit an annual report on the decentralised scheme to the CRB. The advice of this board was to be sought on the operation of the scheme and on the use of endowment funds for clinical research. It was envisaged that all staff of consultant grade engaged

1. T 227/1031, Himsforth to Playfair, 11 December 1952. The report was addressed to the President of the Council, the Minister of Health and the Secretary of State for Scotland. See also Thomson, Vol. 2, 23-26.

2. Medical Research Council and Ministry of Health and Department of Health for Scotland. *Clinical Research in Relation to the National Health Service* (London: HMSO, 1953).

3. Cmd. 8876, 5.

4. MRC etc., *Clinical Research in Relation to the National Health Service*, para. 5.

in major research projects would be employed by the MRC. Staff at lower medical grades would be supported through the scheme.

Treasury officials found the Cohen Report ‘excellent nutriment but rather hard... to swallow whole at this time’.¹ The difficulty was that the CRB would require an initial budget estimated at £50,000 and rising to £250,000 after three or four years. The Treasury was taken with the idea of appropriating the endowment funds of Boards of Governors in England and Wales to provide a source of funding, following practice in Scotland. This was opposed by the Ministry of Health, which anticipated uproar from the teaching hospitals. Less predictably, it was also opposed by the Lord President, Lord Salisbury.² Salisbury, representing MRC interests in correspondence with the Chancellor, predicted that such a measure would jeopardise the ‘harmonious relations’ with teaching hospitals that would be critical to the success of the CRB. He argued that any potential funding difficulty should have been anticipated and communicated before ‘a very high powered committee of extremely distinguished men’ was set to work. He went on to invoke the Council’s UK-wide remit and point out that the Scottish Home and Health Department had already agreed to contribute to the CRB.³ Treasury officials found themselves out-manoeuvred. An allocation was agreed for 1954/5 onwards, but only the base-line cost of £50,000 was added to the MRC vote, as a transfer of funds from the NHS budget was anticipated following the transfer of clinical research units from Ministry to MRC.⁴

The Ministry raised no objections to these proposals and set about finding out how much clinical research was happening in the NHS by means of a survey, undertaken in 1954. This was the first-ever survey of clinical research in the NHS. It asked for returns of expenditure classified between major or minor projects, with a break point at £1,000 annual spend. It revealed a commitment to clinical research that was modest.⁵ Total expenditure of £527,000 was forecast for 1953/4, amounting

1. T 227/1031, Playfair to Himsworth, 13 December 1952.

2. Robert Gascoyne-Cecil, 5th Marquess of Salisbury (1893-1972).

3. T 227/1031, Salisbury to Butler 12 May 1953.

4. T 227/1031, Butler to Salisbury 4 June 1953.

5. MH 123/499, HM(54)3.

to one eighth of one percent of the hospital revenue budget for England and Wales.¹ Of this, only one third was funded from the Exchequer with the balance coming from endowment funds (47 percent) and other external sources (20 percent). Exchequer funding was concentrated in the Regional Hospital Boards. Spending from endowment funds was, unsurprisingly, concentrated in the teaching hospitals, especially in London. The survey revealed considerable variation between hospital authorities. The Sheffield Hospitals Board of Governors reported major scheme commitments of £19,000 whereas Oxford, Cambridge and Newcastle all reported nil. South West Regional Hospital Board reported commitments of £49,500 and North West Metropolitan £56,000 whereas East Anglia and South East Metropolitan reported nil.² This variation reflects reliance on local initiative and the absence of a national policy for fostering clinical research in the NHS.

The survey revealed that just ten NHS research units accounted for three quarters of total spending. This eclectic group had ‘arisen piecemeal on the initiative of different hospital authorities’.³ The Ministry encouraged the MRC to scrutinise the units, volunteering the suggestion that some might prove to be ‘a complete waste of money’.⁴ Council-appointed sub-committees undertook visits and triaged all units into those that should be taken over in their entirety, those that should be reorganised, and those that should be closed.⁵ A transfer of £120,000 was made from the NHS vote to the MRC vote in 1957/8 to allow the latter to take on the costs of units in the first two categories (to the extent that these were Exchequer funded - several also received support from local endowment funds).⁶

In its response to the Cohen Report, the Ministry conceded the principle that all major clinical research should be under the control of the Medical Research Council. It also co-operated fully in the transfer of the best NHS clinical research units to Council management, together with associated funding. The Department’s initial response to the new opportunities offered by the NHS was, then, to acquiesce in

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1. Hospital budget of £412 million derived from Webster, *Health Services Since the War*, Vol. 2, appendix 3.13.
 2. MH 123/499, Godber to Herral, 6 December 1954.
 3. T 227/1031, Thomson to Turnbull, 14 August 1956.
 4. MH 123/499, Godber to Herral, 6 December 1954.
 5. T 227/1031, Thomson to Turnbull, 14 August 1956.
 6. MH 123/500, Herral to Beek, 4 March 1958.

further reinforcement of the dominance of the health research state pursued by the MRC in the inter-war period.

The politics of modernization and scientific reform 1959 to 1965

The period between 1959 and 1965 was exceptional in the extent to which science and technology took centre-stage in British politics. The politics of modernization and scientific reform over this relatively brief period have been examined elsewhere and are briefly summarised here only to support some observations about their effect on the relationship between Ministry and MRC.¹ In 1959, Lord Hailsham (1907-2001) was appointed to the new office of Minister for Science. Hailsham was already Lord President of the Council, in which capacity he was the Cabinet member responsible for the research councils. As previously noted, this arrangement satisfied the requirement for political accountability that accompanies public funding, but without significantly impinging upon scientific self-governance in practice.² Hailsham was sceptical about claims that government should – or could – direct science; and saw his role as one of influencing rather than directing.³ Given this outlook, he was tolerant of existing arrangements for the oversight of publicly-funded research and not much inclined towards structural change.

Other politicians favoured a more *dirigiste* approach to science policy. These included some elements within the Conservative Party, who wanted research to be more directed towards industrial development. Opposition to Hailsham came mostly, though, from the Labour Party, which provided a more natural home for those who saw science as an instrument of the state. Behind these conflicting political positions lay a deeper ideological divide, dating back to the 1930s, between advocates of scientific freedom and those in the Marxist and humanist traditions who were concerned with ‘the social relations of science’.⁴ As the Labour Party sought to

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1. Vig, *Science and Technology in British Politics*. Rose and Rose, *Science and Society*.
 2. These arrangements also governed the two other pre-1964 research councils: The Department of Scientific and Industrial Research (DSIR) – a research council in all but name - established in 1916; and the Agricultural Research Council, established in 1931.
 3. Lord Hailsham. *Science and Politics* (London, Faber and Faber, 1963).
 4. David Edgerton and John Pickstone. “Science, Technology and Medicine in the United Kingdom, 1750-2000,” in *Cambridge History of Science, vol. viii, Modern Science in National and International Context* ed. Ronald Numbers (Cambridge: Cambridge University Press, 2011).

revive its fortunes after defeat in the 1959 general election, it ‘rediscovered the theoretical relevance of science to socialism’.¹ This was accompanied by a pragmatic realisation that a commitment to harness science to the cause of a better society would appear modernising and appeal to the electorate. Against this background, Harold Wilson (1916-1995) chose to make science and technology a major issue in his 1963 campaign for election as party leader. This strategy, having proved its worth, was then carried forward into the general election campaign of 1964.²

Regardless of Hailsham’s personal views, the rising cost of ‘big science’ stimulated growing doubts as to the adequacy of existing arrangements. In March 1962, the Prime Minister appointed a Committee of Enquiry into the Organisation of Civil Science chaired by Sir Burke Trend, Cabinet Secretary. ‘The Trend Report’ was critical in its views of existing arrangements, concluding that:

The agencies concerned with the promotion of civil science do not in the aggregate constitute a coherent and articulated pattern of organisation...the arrangements for co-ordinating Government’s scientific effort and for apportioning the available resources between agencies on a rational basis are insufficiently clear and precise.³

The committee has been described as initiating sweeping reforms.⁴ Holland suggests that Trend was a precursor of Rothschild in challenging the autonomy of the research councils.⁵ However, based on a more detailed investigation, Vig argues that the true nature of Trend was that of a ‘limited tidying up exercise’ and that the review presented no challenge of any substance to the autonomy of the research councils. This was because Hailsham had set pre-conditions.

...that there be no all-pervasive Whitehall department in charge of science; and that the pattern of independent research councils be preserved. This position was based partly on convictions about the nature of science and partly on his beliefs as to administrative feasibility.⁶

1. Vig, *Science and Technology*, 82.

2. Horner, David. “The road to Scarborough: Wilson, Labour and the scientific revolution,” in *The Wilson Governments 1964-1970*, eds. Coopey et al., 48-71.

3. Cmnd. 2171 *Report of the Committee of Enquiry into the Organisation of Civil Science, under the chairmanship of Sir Burke Trend* (London: HMSO, 1963).

4. Wilkie, *British Science and Politics Since 1945*, 68-74.

5. Holland, *Improving Health Services*, 49-50.

6. Vig, 68.

Burke Trend (1914-1987) is described by Hennessy as ‘a natural for the discreet back-rooms of Whitehall’, an expert in the art of the possible in public administration.¹ His committee’s recommendations were carefully crafted to achieve rationalisation whilst stopping short of fundamental reform. These recommendations were partially implemented before the 1964 general election and then, with some amendments, carried forward into the Science and Technology Act of 1965. This legislation included changes for the research councils which, on the face of it, introduced greater political accountability. The Privy Council committees, to which the research councils had nominally been accountable, were disbanded and accountability re-directed from the Lord President to the new office of Secretary of State for Education and Science. Research council funding would, in future, be routed through the DES rather than coming directly from Treasury, as had previously been the case. Regardless of these changes, considerable care was taken to ensure that the councils retained their autonomy.

They remained relatively free from political – or democratic – constraint and their members continued to be appointed by co-option or ‘after consultation with the President of the Royal Society’. Thus no major new principle was introduced by the change.²

Two new research councils were established in 1965: the Science Research Council and National Environment Research Council. The Social Science Research Council was also created in that year, although with a different antecedence as social sciences research was excluded from the scope of Trend’s enquiry.³ Thus the net effect of Trend was to strengthen the research council system on the pre-existing model of scientific self-governance. Crucially, the 1965 settlement did next to nothing to disturb the relationship between the MRC and the Ministry of Health or to challenge the MRC in its *modus operandi*.

Unaffected by the great shake-up, except for a mere minor expansion of its council, the MRC continued with policy much as before...but somehow it seemed less in touch than it had been previously.⁴

1. Peter Hennessy, *Whitehall* (London: Martin, Secker and Warburg, 1989), 213-218.

2. Rose and Rose, *Science and Society*, 102.

3. Blume, *Social Science in Whitehall*.

4. Rose and Rose, 113.

This reform period also saw a debate about where to draw the boundaries for government departments within the spectrum of education, research and innovation; encompassing schools, higher education, basic research, applied research, technology development and industrial policy. The Department of Education and Science (DES) was set up in 1965 to cover a large part of this spectrum. The solution to its broad span of responsibilities was a federal structure, with separate Ministers of State in charge of schools, civil science and universities. The DES was thus the first ‘super-ministry’, establishing a model applied to health and social security in 1968.¹ DES responsibilities did not, however, extend to technology, which was assigned to the new Ministry of Technology. Although this Ministry’s remit expanded dramatically over its brief life, it never acquired responsibility for all industrial sectors.² Other government departments remained ‘sponsoring departments’ for related industries.³ Significantly for its emerging R&D programme, the Ministry of Health was sponsor for the medical equipment and supplies industry.

The politics of modernization and scientific reform between 1959 and 1965 thus left the relative positioning of health ministry and MRC, as laid down by the Cohen Report, undisturbed. The reform process did not create any new institutional pressures for the Council to become more attentive to the interests of the Ministry or the operational needs of the NHS. This state of affairs remained fundamentally unchallenged by national science policy until Rothschild.

The character of the health research state before 1965

The model of the health research adopted during the reconstruction period after the First World War was essentially that of the professionalised state. Government delegated responsibility for health-related research to the medical profession, providing reliable public funding in exchange for a modicum of accountability. The Ministry of Health was assigned surveying and statistical analysis, activities that would rarely satisfy scientific expectations of originality and generalisability. The medical profession was not, however, homogeneous. Within the profession, a

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1. Stacey, Frank A. *British Government 1966 to 1975: Years of Reform* (London and New York: Oxford University Press, 1975).
 2. Clarke, Richard W. B. *The Ministry of Technology and Industry* (London: Industrial, Education and Research Association, 1970).
 3. Wilkie, *British Science and Politics*, 75-77.

scientific elite, which was more closely aligned with life science than with medical practice, provided research leadership through the MRC.¹ This scientific elite could mobilise the support of members of the administrative and political elite when its interests were threatened, as demonstrated at intervals from 1913 through to 1964. Its leaders favoured laboratory research, which consequently dominated the Council's programme. This was presented as a practical strategy, recognising the obstacles to clinical research. However, Fletcher's contempt for clinicians as scientific leaders suggests the existence of a deeper ideological divide, in which laboratory science and its practitioners were afforded higher scientific status than clinical researchers.² Consequently, as late as the 1950s, clinical science was still in its infancy and confined to a small number of MRC and NHS units. Although medical schools were becoming more scientific, this happened first in the pre-clinical sciences, especially physiology, with the diffusion of 'scientism' into the clinical sphere lagging.³

For its part, the Ministry of Health also adopted the model of the professionalised state in its approach to research policy, which was treated as a matter for the medical profession and left it in the hands of the Standing Medical Advisory Committee. The delegation of policy to this committee is typical of the wider reliance on advisory bodies evident in the NHS in the 1950s.⁴ Such bodies provided a means of accessing expertise, developing policy and building consensus. The health care state in the 1950s was still delegative and permissive, with extensive delegation to local health authorities, a point that will be developed further below. Within this governance scheme, the Ministry saw no requirement for research policy that could not be adequately served through delegation to the medical profession, convened into advisory groups, and through reliance on the profession's primary vehicle for research, the MRC.

By the later years of the 1950s, two external influences had begun to erode this scheme: the politics of NHS investment and the actions of actors outside government. Although there was no immediate revisiting of the formal relationship

1. Examples of life sciences include pathology, biochemistry and biology.

2. Austoker, *Fletcher*, 29-30.

3. Heaman, *St. Mary's*, 265-325.

4. Charles Webster, *The Health Services since the War. Volume 1, Problems of Health Care, the National Health Service before 1957* (London: The Stationery Office, 1988), 241-256.

between Ministry and MRC, these influences did lead to changed ‘facts on the ground’ as the Ministry took the first steps that would lead to the emergence of its R&D programme over the following decade. Each of these two influences is now considered in turn.

The politics of NHS investment

Lack of research as political weakness

The National Health Service Act 1946 conferred on the Minister of Health a duty to promote the establishment of a comprehensive health service. It also bestowed a historically-determined pattern of service provision marked by considerable local variation in quality and adequacy. This was the legacy of the pre-1948 system and its attributes: a voluntary hospital sector, shaped by the ‘caprice of charity’; considerable variation between local authorities in provision of health services; and structural constraints on effective co-ordination between the two sectors.¹ The financial stringencies of the 1950s meant that historical inequalities remained largely unaltered throughout the first decade of the NHS.² During this period, the Ministry fared badly in its dealings with Treasury and the share of public expenditure allocated to the health service fell behind other social services.³

In explaining why this was so, historians have emphasised the political weakness of the Ministry of Health.⁴ Between 1945 and 1951 Health had been a large department with an influential Minister, Aneurin Bevan (1897-1960). In 1951, when Bevan became Minister of Labour, the Ministry of Health lost its responsibilities for housing and local government, half of its staff and the Minister’s seat in the cabinet.⁵

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1. Mohan, *Planning, Markets and Hospitals*, chapters 2 and 3. Bevan used the term ‘caprice of charity’ during the second reading of the NHS Bill. H.C. Debates v.422 c.44-7, 30 April 1946.
 2. Klein, *New Politics*, 38-40.
 3. Webster, *Health Services since the War*, Vol. 2, 7 and 43.
 4. Webster, *Health Services*, Vol. 2, 4-6. Paul Bridgen and Rodney Lowe. *Welfare Policy under the Conservatives, 1951 to 1964* (London: The Public Records Office, 1998), 62-63.
 5. The first Minister of Health of the Conservative government elected in October, Crookshank, was a member of Cabinet in his capacity as Leader of the House. This combination of offices proved unmanageable and lasted only until May 1952. Webster, *Health Services*, Vol. 1: 184-200.

Health became a backwater for politicians and civil servants.¹ Ministers came and went in rapid succession, with an average term in office of about eighteen months between 1951 and 1960. Treasury judgements about departments were built upon the quality of individual relationships.² Prior to 1960 the Treasury did not regard the staff of the Ministry as very competent for the challenges faced.³ The outlook of many officials had been shaped through dealings with local government and National Insurance Committees before 1948. The Treasury wanted a more directive, interventionist approach. Instead, the high level of devolution of authority and localism deliberately built into NHS structures in 1948 sustained pre-existing tendencies towards a more distanced, regulatory style of administration.⁴

Treasury scepticism was exacerbated by the Ministry's lack of knowledge about how to improve the NHS and its evident deficiency in the means to acquire, appraise and disseminate such knowledge. This diagnosis was shared by other, more sympathetic, observers. The Committee of Enquiry into the Cost of the National Health Service ('the Guillebaud Committee'), reporting in 1956, concluded that it was impossible to draw any conclusions about relative hospital efficiency in the absence of adequate data and without standards against which to measure performance.⁵ The Report recommended 'the setting up of a Research and Statistics Department which would devote the whole of its time to statistical investigations and operational research in general, and would consider what information is now lacking to the working of the National Health Service and how this information might best be produced'.⁶ Such a department should be 'constantly engaged in the search for facts and information which would enable administrators to make the right decisions for the future development of the Service'. It should act as a clearing house for the collation and dissemination of relevant knowledge to the NHS authorities.

1. Acton Society Trust. *Hospitals and the State: Hospital Organisation and Administration under the National Health Service. Vol. 5: The Central Control of the Service* (London: 1958), 8-9.

2. Hecló and Wildavsky. *The Private Governance of Public Money*, 17.

3. Webster, *Health Services, Vol. 2*, 99.

4. *Ibid.* 38.

5. Cmd. 9663. Report of the Committee of Enquiry into the Cost of the National Health Services (London: HMSO, 1956), 192.

6. *Ibid.* 267.

Knowledge, efficiency and investment

The technical analysis undertaken for the Guillebaud committee demonstrated that the level of capital investment in hospitals had fallen compared to pre-war levels, so that real-terms spending in 1952/3 was only one third of that in 1938/9. This, it was argued, fell far short of the levels needed to renew the NHS estate.¹ Based on these findings, the committee recommended that capital expenditure be increased to £30 million a year from 1958/9.² Regardless of this recommendation, the 'stringent regime of containment' of NHS expenditure imposed by the Conservatives continued after Guillebaud.³ Treasury resistance to a programme of hospital renewal reflected unwillingness to accept such expenditure as investment. The Treasury wanted to see capital projects yielding revenue savings and was sceptical of Ministry of Health claims in this respect, not least because of the dearth of evidence as to what investment would yield most efficiency.⁴

After Guillebaud, it became increasingly clear that the ability to procure and mobilise evidence and knowledge for planning and hospital efficiency was becoming a key asset in the political struggle to secure greater investment. Such capability was needed to counter deep-seated Treasury scepticism about the Ministry's competence to use additional funds productively. The Ministry was starting from a very low baseline in terms of its organisation and policy for research and statistics. Before 1958, its organisational initiatives had been limited to the establishment of a central organisation and methods (O&M) unit and a small statistics branch. Measures to improve visibility of comparative performance had been confined to the introduction of hospital activity analysis and standardised forms of financial reporting.⁵

In 1958, the Minister of Health announced three initiatives for the strengthening of analytical and change management capacity within the Ministry and the NHS, supplemented by limited use of management consultants. The O&M capacity of the

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1. Brian Abel-Smith and Richard Titmuss. *The Costs of the National Health Service in England and Wales* (Cambridge: Cambridge University Press, 1956), 51-57. See Bridgen and Lowe, *Welfare Policy under the Conservatives*, 48-50 for the response to Guillebaud.
 2. Cmd. 9663, 249.
 3. Charles Webster, *Conservatives and Consensus*.
 4. Mohan, *Hospitals and Planning*.
 5. Neil Robson, "Adapting not Adopting: 1958-1974. Accounting and Managerial 'Reform' in the Early NHS." *Accounting, Business and Financial History* 17, no. 3 (2007): 445-467.

Ministry was to be strengthened; the setting up of an advisory body on management efficiency was to be given consideration; and management consultants were to be engaged to undertake hospital efficiency studies.¹ The focus of these initiatives was on the promotion of a range of management techniques with the central goal of improving efficiency. In so far as they led to the conclusion that enhanced research capacity was needed, this was only as a part of this wider focus and pointed to investment in ‘operational research’ rather than medical research. The philosophy of the advisory body on management efficiency, when it emerged in 1959, was not on externally commissioned studies but on the development of analytical capacity within the NHS.²

In the post-war drive for improved industrial productivity, different approaches and disciplines proliferated. ‘Productivity science’ encompassed work study, organisation and methods (O&M), operational research, network analysis, systems analysis, ergonomics, and value engineering.³ Production engineering, materials handling, quality control, human relations and inter-firm comparisons have been identified as the preferred technique of American ‘productivity missionaries’, who were mobilised through the agency of the Anglo-American Productivity Council.⁴ In the Ministry of Health, interests focused exclusively on just three of these disciplines: O&M, work study, and operational research.

O&M had originally emerged during war-time as a development of the Treasury’s ‘Investigating Section’. The Select Committee on the Estimates had, in 1946, recommended its adoption by all government departments so as ‘to secure maximum efficiency in the operation of the government’s executive machinery and, by the application of scientific methods to organisation, to achieve economy in cost and labour’. This led to the setting up of an O&M unit at the Treasury which then spawned similar units in administrative departments, including the Ministry of

1. HC Debates 30 July 1958 vol. 592 cc1407-1410

2. Stephen M Davies, "Promoting productivity in the National Health Service, 1950 to 1966," *Contemporary British History* 31, no. 1 (2017): 47-68.

3. Russell M. Currie, *Work Study* (London: Pitman Publishing for the British Institute of Management, 1977), 15.

4. Nick Tiratsoo and Jim Tomlinson, *The Conservatives and Industrial Efficiency, 1951-1964. Thirteen Wasted Years?* (London and New York: LSE/Routledge, 1998), 50-65.

Health in 1956.¹ O&M was concerned with organisational design and ‘the studying of administrative and clerical procedures and methods, of office mechanisation and equipment, office layouts and working conditions’.² It had a particular focus on the more efficient management and communication of information and automatic data processing. In 1958, the Ministry of Health unit was made permanent, enlarged and placed under a full-time Assistant Secretary. From 1959 onwards, the Ministry authorised the employment of specialists by the hospital authorities. Growth came through local O&M units after 1961, rather than through the central unit. By 1963, the number of studies nationally had risen to 750.³ By 1964, around 200 trained personnel were employed across both the central unit and the hospital service.⁴

The National Health Service Advisory Council for Management Efficiency (England and Wales), (ACME), was established in 1959 ‘to advise generally on measures for improving efficiency in the National Health Service’.⁵ Under the influence of its Chairman, Sir Frank Ewart Smith (1897-1995), ACME promoted work study, which combined study of how a job could be undertaken most efficiently with the application of techniques designed to establish the time needed for a qualified worker to carry out a specified job at a defined level of performance.⁶

ACME did not envisage either O&M or work study as being undertaken by external experts. The Advisory Council’s goal was that, over time, the NHS would become largely self-sufficient in O&M/work study experts and that these disciplines would become an integral part of the hospital service.⁷ Under the influence of ACME, the Ministry awarded training contracts for O&M/Work Study Officers to

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1. Jon Agar, *The Government Machine. A Revolutionary History of the Computer* (Cambridge MA: MIT Press, 2003), 252-259.
 2. MH 137/344, *Definitions sent to Mr Perrin*.
 3. Cmnd. 2389 *Report of the Ministry of Health for the Year Ended 31st December 1963* (London: HMSO, 1964).
 4. Cmnd. 2688 *Report of the Ministry of Health for the Year Ended 31st December 1964* (London: HMSO, 1965).
 5. MH 137/340, *Improving Efficiency in Hospitals. The Aims of the Advisory Council for Management Efficiency (England and Wales)*, December 1959.
 6. British Standard 3138 *Glossary of Terms Used in Work Study and Organization and Methods (O&M)*, (British Standards Institute: 1969).
 7. Cmnd. 806 *Report of the Ministry of Health for the Year Ended 31st December 1958: Part 1* (London: HMSO, 1959), 43.

the King's Fund Administrative College in 1960. The Advisory Council was concerned to ensure that expertise in productivity techniques would be diffused throughout the NHS because it believed that NHS administrators were unusually insular and suffered from 'managerial inbreeding'.¹

ACME members firmly believed that suitably-trained hospital staff, rather than external consultants, should be employed in efficiency studies wherever possible, provided they could eventually return to their normal duties. This approach would ensure that those who undertook efficiency studies were also, wherever possible, responsible for implementation and that the expertise developed was retained within the NHS.

If the development of management efficiency studies in the hospital service was to be of value it seemed important that the necessary organisation should become an integral part of the service. In this way only, would it be possible for hospital managements effectively to install and maintain improved methods after the investigations had been carried out. This would require trained staff to work as part of the management team rather than the temporary employment of investigators not on the Regional Board or Hospital Management Committee staff.²

It followed that management consultants should be used only where there was a short-term deficit in capacity. By the same reasoning, ACME did not promote the commissioning of research from providers outside the NHS. However, the Advisory Council did support the recommendations of Guillebaud for greater use of 'operational research', and it was with its knowledge and consent that the Ministry first began to commission research from external contractors: a development that is explored in the next chapter.

The status of operational research (OR) as one of the three favoured efficiency techniques meant that its commissioning was viewed as a natural extension of the Ministry's capacity-building for 'research and statistics' and as fully aligned with the quest for improved efficiency. This, in turn, meant that it was approved by the Treasury, which was supportive of the Ministry's initiatives in the expectation that such measures would increase the chances of NHS investment yielding greater efficiency. It was not, however, a central plank of the Ministry's response to

1. MH 137/350, ACME first report 17 November 1960.

2. MH 137/342, Minutes fifth meeting of ACME, 5 November 1959.

criticisms of its lack of analytical capacity, nor was it a priority for ACME. The initial focus was rather on the development of O&M and work study, which were categorised as ‘management services’ rather than R&D. It was from this initially minor role in the quest for efficiency that the departmental R&D programme emerged, bolstered by support from a Chief Medical Officer, Godber, who was in tune with progressive thinking about ‘medical care’ research.

Health policy after 1960

Enoch Powell (1912-1998) was appointed Minister for Health in 1960. As a member of the Treasury front bench team that had resigned in 1958, Powell came with impeccable credentials on control of public spending.¹ Two other critical leadership appointments were made in the same year. Sir Bruce Fraser (1910-1993) became Permanent Secretary, moving from the Treasury where he had been responsible for social services. Webster comments that Fraser’s appointment represented a major cultural shift and ‘was an important preparatory step towards bringing the Ministry of Health into the Whitehall mainstream’. The transfer of other officials from the Treasury to the Ministry also encouraged a more harmonious relationship between the two organisations.² George Godber was promoted to Chief Medical Officer, in which role he proved highly influential for the development of the R&D programme. Under this refreshed leadership team, the Ministry secured commitment to a longer-term hospital building programme, in the form of the Hospital Plan.³ As has been thoroughly documented elsewhere, this was an ambitious plan to replace the aging and irrationally distributed NHS estate with a network of modern, district general hospitals.⁴

At first sight, an expansionist programme of new hospital building might appear inconsistent with the arrival of a minister committed to the control of public expenditure. The Plan included projections, agreed with Treasury, for £500 million of capital investment over ten years. There was no contradiction, because capital investment was seen by both Powell and the Treasury as a means of containing

1. Robert Shepherd, *Enoch Powell*, (London: Hutchinson, 1996), 172-184.

2. Webster, *Health Services*, Vol. 2, 37.

3. Cmnd. 1604, *A Hospital Plan for England and Wales* (Ministry of Health, HMSO, 1962).

4. Allen, *Hospital Planning*. Mohan, *Planning, Markets and Hospitals*. O’Hara, *Dreams to Disillusionment*, 179-190.

growth in hospital running costs. Investment in new buildings and equipment would allow greater ‘throughput’ of patients, reducing unit costs. In this ‘industrial view’ hospital investment was thought of as a measure to promote long-term financial control.¹ Powell was sufficiently confident of this to volunteer a cap of 2 percent on growth in NHS current spending.² A further strategy for long-term cost containment was the promotion of community-based services, as an alternative to hospital care, as reflected in the subsequent publication of the less-discussed Health and Welfare Plan.³ Local authorities, which provided community-based health and welfare services prior to 1974, made returns to inform this plan. The standard was variable, reflecting deficiencies in information and analysis. The exercise communicated an expectation that all local authority health and welfare departments would, over time, move towards conformity with minimum standards.⁴

Against this background, the necessity of obtaining better evidence about a wide range of issues became even more pressing. The Ministry needed to know much more about population needs and the optimal distribution of hospitals and community services to balance access and efficiency. It had to decide how to respond to new thinking in hospital design and new medical technologies. Its quest for efficiency drove interest in the evaluation of supplies, buildings and engineering.

Control and efficiency

The Treasury was concerned about control over NHS spending as well as the efficiency of the service. As one official put it to the House of Commons Select Committee on the Estimates, speaking of the £400 million annual running costs for hospitals: ‘there is no sum as large as this which is subject to so little Treasury control’.⁵ Guillebaud had been asked ‘to suggest means, whether by modifications in

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1. Tony Cutler, "Economic Liberal or Arch Planner? Enoch Powell and the Political Economy of the Hospital Plan," *Contemporary British History* 25, no.4 (2011): 469-489. See Shepherd, *Enoch Powell*, 204-226, for a discussion of ‘the sudden transmogrification of the Gladstonian-liberal incarnate into the epitome of the state planner’.
 2. Webster, *Health Services*, Vol. 2, 104-107.
 3. Cmnd. 1604, para. 31. Cmnd. 1973, *Health and Welfare: the Development of Community Care* (HMSO: London, 1963). John A. G. Griffith *Central Departments and Local Authorities* (London: George Allen and Unwin, 1965), chapters 6, 7.
 4. Griffith, 488. For a comprehensive discussion of the ten-year plans see pages 466 to 500.
 5. House of Commons. Sixth Report from the Select Committee on Estimates together with the proceedings of the committee, 1957, para. 84.

organization or otherwise, of ensuring the most effective control and efficient use of such exchequer funds as may be made available', but had not convincingly met this brief, to the disappointment of Treasury.¹ The Select Committee on the Estimates pressed in 1958 for an independent enquiry into the control of public expenditure and, in response, the Treasury had launched its own committee of enquiry, chaired by Lord Plowden. This committee reported in 1961.² The 'Plowden Report' led to the establishment of the Public Expenditure Survey Committee (PESC), which was to take a cross-government view of spending priorities over a five-year period, a departure from the previous process of annual bilateral discussion between Treasury and spending departments.³

Plowden urged greater use of quantitative methods in government and the nationalised industries. The committee recommended the development of 'management services', including statistics, costing, accountancy, operational research and O&M. The Treasury was to promote the adoption of these techniques by government departments and public services 'both to encourage them and to help them in the improvement of efficiency and economy in management'.⁴ Particular attention was paid to the hospital service in this respect.⁵ As well as recommending an expansion in management services in the NHS, the report noted that 'there may perhaps be scope for the use of the techniques generally described as operational research for a wide range of problems'.⁶

Plowden further encouraged the Department to develop an armamentarium of investigative disciplines for the promotion of efficiency and control. As with ACME, the committee may have been more encouraging of management services than R&D, but there was sufficient support for the latter to create calls for the health research state to foster investigation into health services and the effectiveness of medical care. The state thus generated its own rationale for greater investment in health research

1. Davies, *Promoting productivity*, 49.

2. Cmnd. 1432, *Control of Public Expenditure* (Chancellor of the Exchequer, London: HMSO, 1961).

3. Hecló and Wildavsky, *Private Governance*, 198-263.

4. Cmnd. 1432 part 2, para. 50.

5. *Ibid.* para. 55.

6. *Ibid.* part 1, para. 30.

and in new types of research. However, such calls had first come from various actors in civil society, and it is to the role of these that the discussion now turns.

Actors in civil society

The calls of the Guillebaud Committee for enhanced research and statistics capacity at the Ministry of Health were picked up and elaborated by The Acton Society Trust (a think-tank with Liberal Party connections). The final report in the Trust's series on *Hospitals and the State*, published in 1959, concluded that the Ministry:

has not done enough during this initial decade to collect knowledge which will provide better guidance for planning in the future – a future in which, it is hoped, more generous provision for capital expenditure will be available; and...although bold strategic planning may have been impracticable, there have been many questions affecting the handling of recurrent problems on which Hospital Boards have needed advice based on national experience and policy...on such questions the Ministry has not been sufficiently helpful.¹

In an earlier report in the same series, the Trust had explored the realities of planning by Regional Hospital Boards. The conclusion was that Boards were lacking knowledge on matters as basic as the incidence of disease and wanting guidance on all aspects of hospital planning, design and administration.² The Acton Society Trust acted as an advocate for greater investigative and analytical capacity. Other actors beyond government played the same role, including backbench MPs, the Royal College of Nursing, and 'productivity missionaries' from industry. The motivations and interests of these actors were diverse, but they were sufficiently aligned to form a loose coalition promoting productivity in the NHS. Their cause was eventually institutionalised by the Department through the setting-up of ACME and associated measures.³

1. Acton Society Trust, *Hospitals and the State: Hospital Organisation and Administration under the National Health Service, Vol. 6: Creative Leadership in a State Service* (London: 1959).

2. Acton Society Trust, *Hospitals and the State: Hospital Organisation and Administration under the National Health Service, Vol. 4: Groups, Regions and Committees* (London: 1957), 19-30.

3. Davies, *Promoting productivity*.

On a more practical level, leadership came from the two charitable foundations that occupied a distinctive position in relation to the NHS. This was acknowledged by the Acton Society Trust, which argued simultaneously that the government should not rely on the charitable sector.

It is interesting to speculate what knowledge there would be today on many important matters affecting practical hospital development if it had not been for the work of such institutions as the Nuffield Provincial Hospitals Trust, King Edward's Fund, etc. It is right to acknowledge fully the value of this contribution from private agencies, but it is not right for a national service to rely on this alone.¹

Both the charities named here were established before the NHS to support the voluntary hospital sector. After 1948, both had to re-define their roles. For the Nuffield Provincial Hospitals Trust (NPHT), in the 1950s and into the early 1960s, this meant compensating for the insufficiency of the state in health research. The King Edward's Hospital Fund for London (King's Fund) took a stance that was more aligned with that of ACME in its emphasis on practical knowledge and skills development in the NHS workforce.

The Nuffield Provincial Hospitals Trust

Of the two charities, NPHT had the most influence over the departmental R&D programme because its mission was, from 1948 onwards, focused on research. The charity had been founded and endowed by Lord Nuffield in 1939 with the aim of improving the co-ordination of voluntary hospitals outside London. Its original plans included the creation of regional and area councils to co-ordinate services. These plans were suspended at the request of the Ministry in 1941 and became redundant once government assumed responsibility for co-ordination of health services through the NHS. The Trust then redefined its role as making 'a special contribution as an independent body, co-operating with government agencies, in the field of enquiry and research into practically all aspects of health services'. Its aim was to 'seek the essential facts by survey and research over a fairly wide field' and, based on hypotheses generated by such studies, to support innovations in health care that could be subject to experimental development and evaluation. The ultimate goal was 'real

1. Acton Society Trust, *Creative Leadership in a State Service*, 26.

and useful knowledge' that could be applied by the NHS for the improvement of health services.¹

The ways in which the charity pursued this goal changed over time. During the 1950s, the Trust convened and funded multi-disciplinary study groups. Four studies were completed by 1955: an investigation into the function and design of hospitals, a study of nursing, a costing study, and a study of 'good general practice'. After 1955, the Trust maintained a small in-house operational research group, which published reports on sterile services between 1957 and 1962. It also maintained activities in architectural research and industrial health through other members of the Nuffield charity family, the Nuffield Foundation and Nuffield Health and Social Services Fund.²

NPHT made grants in parallel with these activities. In the 1940s, it endowed university chairs in social medicine at Oxford and Birmingham. Throughout the 1950s, increasing numbers of grants were made for investigation into aspects of health services. Most grants in this decade were made to statutory NHS bodies: RHBs and local authorities. It was rare for grants to be made to Boards of Governors, because NHS endowment funds were available to these bodies (the exception to this was Oxford, where the NPHT was founded and based until 1962). University-based research was also funded, but on a smaller scale. Grants were made to academic units that went on to become significant suppliers of HPSSR to the Department in the 1960s and 1970s. These included the Department of Social Medicine, Birmingham; the Department of Clinical Medicine, Oxford; the Department of Social Administration, Manchester; and the Nuffield Centre for Health Services Studies, Leeds.³

In 1956, the Trust consulted universities, medical schools and NHS bodies on its future direction. This exercise revealed a consensus view that NPHT could make the greatest contribution to the NHS through grant-making for health services research as 'there was at that time no discernible government research policy for health care'.⁴

1. McLachlan, *History of the Nuffield Provincial Hospitals Trust*, 66.

2. *Ibid.* 73. The Nuffield Foundation and the Nuffield Provincial Hospitals operated under common administration until 1955.

3. *Ibid.* 55-58, 96-106.

4. *Ibid.* 79.

This finding prompted greater commitment to grant-making. In-house activity was wound down, with the OR unit disbanded in 1962. The Trust also began to shift the weight of its grant-making away from the NHS and towards universities. According to McLachlan, ‘it was already evident...by 1960 that Health Service Research had to be encouraged and that the Universities were virtually the only institutions in which research units could be sited’. A more pragmatic rationale for supporting university-based research was presented by the quinquennial review system of the University Grants Council, which provided a mechanism for continuation of funding once a research group was established. The Trust’s strategy was to fund health services research groups for up to five years in the expectation that longer-term funding would be secured through the quinquennial review process, assuming the group had used its seed-corn funding to good effect. The primary intention was not to strengthen university research *per se* but rather to increase national capacity to produce research that would be of value to the NHS. Consequently, ‘it became normal procedure in relation to grants to try and associate the hospital authorities with a unit in a university carrying out a particular piece of research’.¹ The Ministry reinforced this approach by co-funding some projects with the NPHT.

The emergence and growth of service-relevant research was thus fostered by NPHT grant-making. So too was university and NHS capacity to undertake such research. Until the early 1960s, this was an activity in which the NPHT was clearly compensating for state insufficiency. The Trust recognised, however, that its funding capacity was limited and, like the Acton Society Trust, advocated a departmental programme, recognizing that ‘the scale and the cost of research deemed necessary made it inevitable that the Government had to come strongly into the field’. The Trust acknowledged that government-sponsored research might ‘inhibit boldness of line and candour in comment’ but put this to one side, partly on the grounds of the scale of spending required but also because ‘no organisation can afford to dispense with research as part of its managerial function’.²

In addition to in-house research, grant-making and advocacy, NPHT came to play a role that McLachlan described as ‘intelligence’. This was based on the conclusion

1. McLachlan, *History of the Nuffield Provincial Hospitals Trust*, 80.

2. *Ibid.* 87.

that ‘the best policy would be for the Trust to act more and more as an independent agent for the brokerage and development of ideas and for the encouragement of even sharper critiques of underlying concepts’.¹ The intelligence role was discharged through the organisation of seminars and forums; through dissemination of seminar proceedings and research findings; and through the convening of private discussions between persons of influence. McLachlan memorably characterises the organisation as being both ‘institute and impresario’.² His own talents as a networker and influencer have not been fully documented, but were evidently considerable and honed over three decades. Holland includes McLachlan in his honour roll of ‘pioneers of health service research’, saying that ‘it is impossible to overestimate the contribution that he made to the promotion of HSR in the UK’.³

In summary, during the 1950s NPHT compensated for state insufficiency through direct involvement in operational research. By the early 1960s it had withdrawn from this activity and was more focused on grant-making, typically using a co-funding model with the NHS, and its ‘intelligence role’. Initially, this was a response to the opportunities presented by the expansion of the University sector. Later, it also reflected a recognition that the Department was playing a growing role in research commissioning. The NPHT thus changed its preferred mode of operation as the health research state expanded its activities. This agility allowed the charity to most effectively complement the activities of the state.

The King’s Fund

The King’s Fund also acted in ways that supported the growth of investigative activity in the NHS. It did not, however, share the Trust’s conviction that departmental intervention in R&D was desirable. Like NPHT, the Fund had to re-define its role after 1948. The NPHT was recently established at the birth of the NHS and, because of the War, had never had the opportunity to pursue its original plans. In contrast, the King’s Fund had been making grants to supplement the resources of the London voluntary hospitals for half a century. Energies in the 1950s were directed towards the problem of how to re-interpret this role in an era of state

1. McLachlan, *History*, 170.

2. *Ibid.* 91.

3. Holland, *Improving Health Services*, 62-63.

provision. The outcome was a policy of grant-making to complement Exchequer funding.¹ This included some funding of investigations, but only through in-house projects and as part of a wider programme of grant-making.

The Fund's annual report for 1958 sets out a cautious response to calls for an improvement in the research capacity of the Ministry of Health. The report acknowledges that 'in the wider field of medico-social and economic problems affecting the country as a whole there is certainly a need for continuing research'. But, it goes on to argue, there remained a host of practical questions relating to hospital efficiency and patient care that would not best be served by the creation of a central research organisation.

A great deal is being done in these fields by individual hospitals and related organisations, though the range of investigation is not yet as wide or as deep as it should be. The success of this type of enquiry depends upon the wisdom and experience of practising hospital officers rather than upon the technical ability of specialists in a central research unit or laboratory, and direct central control of such practical work is unlikely in the long run to achieve as good results as the encouragement of individual initiative at hospital level, and the promotion of research by independent organisations as well as by the Ministry.²

More effective methods of collating and disseminating 'factual information' on best practice were seen as more promising than central control of research. The report concludes that the Fund could help in two ways. The first would be to provide practical support to hospitals projects to improve standards of working efficiency and patient care. Support would be provided through the Fund's staff colleges and its various advisory services and, in some cases, the provision of grants. The second would be the provision of a clearing-house for the collection and distribution of information. In another significant contrast with NPHT, it was not Fund policy to make grants to external bodies for research.³

1. Prochaska, *Hospitals of London*, 164-180.

2. King Edward's Hospital Fund for London, 62nd Annual Report (1958), 5-7.

3. The Fund had a specific prohibition on grants for medical research dating back to 1905, originating in supporters' concerns about the association between medical schools and animal experimentation (Prochaska, *Hospitals of London*, 56-57).

Contrasting views of the health research state

The actors beyond government discussed above shared a common understanding of the insufficiency of the state. They also shared a common commitment to improved health service productivity as a means of improving the scope and quality of services provided. Their differing approaches to achieving these goals reflected contrasting views about how the health research state should develop. The King's Fund saw the health research state as mirroring the health care state as they knew it, i.e. decentralised and delivered by organisations that enjoyed a high degree of autonomy. In this there was a degree of projection of their ideal of the health care state, to which the Fund clung in the 1950s, as one in which voluntarism continued to play a significant role.¹ A commitment to practical knowledge and the strengthening of analytical capacity within the NHS was compatible with this ideal. The idea of a strong, central state commissioning research from independent contractors was not. Overall, these views were shared by the members of ACME, which included several hospital authority representatives, although this committee proved benignly supportive of the Ministry's move into the commissioning of operational research.

In contrast, NPHT envisaged the emergence of a health research state in which the centre took a leading role in both undertaking and commissioning service-relevant research. In the absence of such leadership, the Trust funded such research itself, most often in partnership with the NHS. Once such leadership began to emerge, the Trust was content to continue working in partnership with the Ministry, as well as the NHS. Eventually, the departmental programme became large enough to begin withdrawal from grant-making, a development that will be considered later. NPHT, under McLachlan, appears to have taken it as axiomatic that the kind of research that it wanted to promote would never be central to the programme of the MRC. Its strategy, therefore, was to encourage the emergence of a departmental programme as a second centre of gravity within the health research state.

Concluding discussion

The evidence presented in this chapter demonstrates that the MRC was the dominant force in the health research state prior to 1965. The Council had aggressively sought hegemony since its earliest days and, in this quest, largely

1. Prochaska, *Hospitals of London*, 164-194.

prevailed. Consequently, there was very limited engagement in R&D by the Ministry of Health. The revisiting of the relationship through the Cohen review, formally reinforced the Council's position and the national science policy reforms of 1959 to 1965 did little to alter the distribution of power. To achieve and sustain its dominance, the MRC was consistently able to draw upon the support of a scientific and political elite. The same support allowed it to achieve a high level of autonomy from political control and scientific self-governance, despite its almost total reliance on public funding. In the minds of MRC insiders, all of this was justified by an internalist view of science, in which only the scientific community could legitimately influence the research agenda and evaluate research outputs. Determination of research priorities should be untainted by considerations of 'usefulness'. No-one expresses these attitudes better than Thomson when he says of proposals to subjugate the MRC to the Ministry of Health in the reconstruction period.

The Committee had already achieved independent power, in its scientific discretion, to frame and execute its programme for the advancement of knowledge; even a suspicion of bureaucratic control or political expediency would have destroyed the Committee's authority and have lost it the sympathetic co-operation of scientific men.¹

Neo-pluralist and democratic elite theorists might view such MRC dominance as benign; an aspect of the professionalised state that served the public interest because it guaranteed standards for publicly-funded medical science and protected the scientific community from political interference. A more critical interpretation might see the MRC as an institutional vehicle for the capture of public resources by a medical scientific elite. This elite was invested in laboratory-based, curiosity-driven investigation. In this interpretation, the MRC in this period represents a highly-developed form of professional monopoly as dominant structural interest. From this perspective, the battles between the MRC and the Royal Colleges appears as strife between segments of the dominant profession or, to use Alford's terms, as 'conflicts of interest groups *within* a dominant structural interest'.² Whether a neo-pluralist or an elitist interpretation is preferred must ultimately rest on normative expectations of

1. Thomson, *Half a Century*, vol. 1, 35.

2. Alford, *Health Care Politics*, 14.

the social relations of science and more practical judgements about the relevance to societal needs of the research councils' outputs.

From the late 1950s onwards, new influences began to undermine the assumptions upon which MRC dominance of the health research state rested. The politics of NHS investment and efficiency created an imperative for a more practical, service-relevant kind of systematic knowledge than the MRC was likely to offer, at least at the scale required. For some stakeholders, this meant an investment in management expertise, bringing the industrial productivity movement into the health care state. For others, most notably the NPHT, it meant the fostering of new kinds of research through grant making and through encouragement of government to enter the arena as a research commissioner.

The pace of change before 1965 was slow, and this erosion of the basis for MRC dominance is more easily perceived in retrospect than it would have been at the time. Calls for greater analytical capacity at the Ministry of Health placed more emphasis on non-academic systematic investigations - statistics, accounting and productivity techniques – than on formal research. When bodies like the Guillebaud Committee or ACME used terms like 'research and statistics' or 'operational research' they did so in a pre-academic context. Tentative moves by the Ministry to build or sponsor additional capacity for research would have been interpreted as falling within its remit for surveys and statistical analysis. The extent to which Trend, for all its trappings of reform, left the scientific self-governance of the research councils largely undisturbed, would further have fuelled complacency.

This chapter has focused on the formation and subsequent development of the health research state. Some additional discussion within the 'exchanges' analytical theme will introduce some concepts and arguments that recur in later chapters. The internalist perspective of the MRC led it to follow a model of research production and utilisation that was 'knowledge-driven'. In this model, 'the duties of scientists are to respond to a specific and vocational mission that is the collective production of an incremental body of disinterested knowledge'.¹ New knowledge has intrinsic

1. Jean-Louis Denis et al. "A knowledge utilization perspective on fine-tuning dissemination and contextualizing knowledge" in eds. Louise Lemieux-Charles and Francois Champagne, *Using Knowledge and Evidence in Health Care: Multidisciplinary Perspectives* (Toronto: University of Toronto Press, 2004), 1-18.

value that can only be assessed in relation to the existing stock of knowledge. Such assessment can only be undertaken by scientific peers. The knowledge-driven model is often coupled to the linear model of research and development, in which basic research feeds applied science, which in turn feeds development and eventual practical application.¹ Using this model, investment in basic science can be justified as the first stage in a flow from discovery through to innovation.² Although committed to knowledge-driven science, the use of the linear model was potentially double-edged for the MRC. If medical science is supported by the state because the state expects tangible benefits in the form of better medical care then the state might reasonably conclude that a greater share of public funding should be committed to applied research and development, and a lesser share to basic science. But to accept such arguments, and re-balance its programme accordingly, risked undermining the authority of the MRC, which rested on the prestige of basic science. In response to this conundrum, the MRC developed a line of argument that was dismissive of the distinction between pure and applied research. Thomson is the most explicit spokesperson for such views as they prevailed in the 1950s and beyond.

From time to time, the counsels of research organisations are vexed by considerations, usually of extraneous origin, involving a distinction between 'pure' and 'applied' research...Men of science themselves are apt to find little reality in such a distinction, and less utility in trying to draw it. Experience shows that the results of research promoted in the general pursuit of knowledge may have quite unforeseen utilitarian applications, possibly of immediate value; and on the other hand that the results of an *ad hoc* investigation may add to the general store of knowledge.³

The MRC's attitude towards research utilisation followed from this line of argument. The Council was not much interested in trying to demonstrate the practical benefits of specific projects or programmes, preferring to draw attention to the general advance of medicine and disregarding questions about how far this was driven by formal research and how far by other forms of systemic investigation or innovation.

1. Weiss, *Many Meanings*.

2. Benoit Godin, "The linear model of innovation: The historical construction of an analytical framework," *Science, Technology and Human Values* 31, no.6 (2006): 636-667.

3. Thomson, *Half a Century*, vol. 1, 95.

Any account of achievements in clinical research is bound to be misleading unless the reader bears in mind that every spectacular advance depends on a mass of unspectacular work, all of which has been indispensable to the final result.¹

This outlook shaped exchanges in research which were characterised by the patronage of promising researchers by committees of medical scientists with established reputations. Grant-making was not accompanied by expectations of specific outcomes or even of immediate ‘usefulness’. Research questions were defined by researchers. This created an institutional culture which was not obviously compatible with the problem-driven research agenda of a government department. Nevertheless, the Department looked to MRC for organisational models as it began to build its own research organisation

1. Cmd. 8876, 7.

6. Before Rothschild: 1961 to 1973

We did not start with a ‘masterplan’. Our approach, like that of the MRC in developing biomedical research, was empirical. Nor did we theorise in advance about the definition of health services research. We were prepared, for a beginning, to initiate or support any sufficiently useful project or programme with a precise and practical relevance to the operations of the NHS, that is to better care of patients or better use of resources, within a time scale of the next five to ten years as well as a limited number which could be expected to be reasonably fruitful in the development of research methods.¹

Kogan and Henkel describe the period before 1974 as the ‘golden age’ of the programme.² This was an era of rapid growth in the Department’s R&D budget, which rose from a near-zero base in 1960 to £13.3 million, or just under four percent of all civil R&D spending, by 1973. The emergence of a research imperative, stimulated by the politics of NHS investment, has been explored in chapter five. The persistence of this imperative sustained growth throughout the ‘golden age’, while other developments in health and social care reinforced a consensus that more research was needed. Such developments ranged from the emergence of new medical technologies to heightened concern for disadvantaged and vulnerable patient groups.

In this chapter, the focus is shifted away from external forces and towards institutional responses, examining how the Department organised itself and engaged with other actors to achieve a growth dynamic. The chapter’s principal themes are the elaboration of the health research state and the organisational forms and processes adopted. The role of the administrative medical elite at the Department is prominent, but the circumscribing of medical interests by generalist civil servants is also considered. The consequences of a rapidly growing departmental programme for relations with the MRC are further examined and the argument that this was not seen as a threat before Rothschild is developed. An examination of the Department’s engagement with a researcher community that was itself expanding and becoming

1. Cohen, *DHSS and the MRC*, 13.

2. Kogan and Henkel, *Government and Research*, 7.

more differentiated is placed within the ‘exchanges’ theme, demonstrating the importance of the supply-side in shaping the programme. The identity of ‘the customer’, and of the role of the departmental bureaucracy in facilitating exchanges between researchers and the end users of research, or their proxies, are also explored.

Organisation for research and development

Administrative structures

In the late 1950s, expectations of greater analytical capacity were linked to the politics of NHS investment. Once course was firmly set towards the Hospital Plan, the Treasury became even more concerned about the capabilities of the Ministry of Health. The Plan was to be a major exercise in comprehensive rational planning, and it was by no means clear that the Ministry was adequately equipped for such a task. In early 1961, Treasury staff undertook an inspection of staffing in the two Hospital Services (HS) divisions. These combined general regional with specialist national responsibilities. The conclusion was that ‘the two divisions are not fully equipped to tackle effectively the probable increase in the load of work expected to arise from the hospital building programme and the need to take action to promote efficiency and economy in the running of hospitals’.¹ The Ministry was quick to exploit this perception, arguing that more staff were needed to develop guidance for the hospital authorities on building, engineering, supplies and equipment. Additional staff were also needed to follow up on statistical returns and develop ‘yardsticks’ for the comparative assessment of efficiency. A working party was looking at resource allocation to hospital authorities, and this required more administrative support. ‘These activities’, the Ministry concluded, ‘together with the use of O&M in the hospital service, we want to bring together under one Under-Secretary, with the pursuit of efficiency and cost control as his primary responsibility’.² These arguments were persuasive because they spoke directly to the Treasury’s twin pre-occupations: efficiency and control. The Treasury debated the exact structure required because, as one official revealingly put it, ‘the quality of Ministry of Health staff is not good enough to allow them the luxury of lack of organisational clarity’.³

1. T 227/2229, *Staff Inspection of Senior Posts in Divisions 1 and 2*.

2. T 227/2229, Pater to Lee, 15 March 1961.

3. T 227/2229, Ministry of Health: Hospital Divisions, 6 April 1961.

Regardless of some trimming of the proposed establishment, the Treasury was basically supportive of a new division in the hope that it would ‘get the running costs of hospitals under better control’.¹ Against this background, the new division, Hospital Services 3 (HS3), was established during 1961.

HS3, headed by Under-Secretary R. Gedling, was not allocated any regional responsibilities and so could focus solely on national issues. The new division was established with six branches. Two were committed to supplies policy and procurement (supplies A and B). Two more were responsible for the hospital building programme (A and B). Branch C was responsible for the O&M service and for ‘studies of operational aspects of hospital and Regional Hospital Board work’. The responsibilities of a final branch (D) included ‘sponsoring and co-ordinating of experiments and operational research’ and ‘collation of information regarding good practice’. This branch would also look after the Advisory Council for Management Efficiency, which up to this point had lacked executive support.² Branch D receives special mention in the annual report of the Ministry for 1961.

In the course of the year a new Branch was set up at the Ministry with the aim of furthering good practice in the hospital sector. The aim of the branch is to find out and make known good management practice in each department of the hospital service; to keep in touch with good practice in industry in this country and in hospitals in other countries; to disseminate information; to encourage and sponsor experiments and to bring their results, whether successful or not, to general notice; to undertake studies of particular hospital activities; and to sponsor operational research where the best current practice does not meet the need efficiently.³

Branch D was led by John Cornish, a Principal Executive Officer (the most senior grade of the executive class). Other branch heads were Assistant Secretaries, members of the senior administrative class. Regardless of this disparity in status, Cornish is credited by both Cohen and Holland as having exercised considerable influence over the developing R&D programme. Holland also mentions that he

1. T 227/2229, Robertson to Lee 28, March 1961.

2. MH 157/1, Ministry of Health Directory 1962.

3. Cmnd. 1754 *Report of the Ministry of Health for the Year Ended 31st December 1961: Part 1* (London: HMSO, 1962), 20.

brought practical knowledge of OR to the Department, gained through wartime service with The Admiralty.¹

The remit for HS3 was the hospital service, but the need for research extended to community-based services. This became more evident as the Ministry sought information from local authorities to inform the Health and Welfare Plan. In time, the Department came to see that ‘it was neither wise nor practicable to apply the boundaries of the three statutory parts of the service to research’.² Consequently, R&D administration was centralised in 1966 within a newly-created Statistics and Research (S&R) division. This was placed under the direction of Under-Secretary Wolf Rudoe, previously Chief Statistician at the Board of Trade. The remit of S&R was as follows.

The collection, analysis, interpretation and publication of statistics of all branches of the National Health Service. The control and development of research (other than that of a medical, architectural or engineering nature), Central O&M Unit studies of the administrative and operational aspects of hospital and other Health Service Work. The use of Computers in the National Health Service.³

S&R was built around the previously existing statistics division of the Department. Two branches of HS3 were transferred into the new division, HS3-C (O&M) and HS3-D (research). Cornish remained head of the research branch, which became SR4. In addition, a new branch was created to deal with computer policy and development.⁴ In 1968, following the creation of the DHSS, the research management team of the former Ministry of Social Security was bolted onto S&R as a further branch.⁵ The inclusion of supplies and equipment in HS3 was short-lived, with this function moved back into a re-born Supply Division in 1964.⁶

S&R was positioned as a ‘central, co-ordinating division for all research, including medical research’.⁷ It represented the fulfilment, after a ten-year interval,

1. Holland, *Improving Health Services*, 55-56.

2. MH 166/973, discussion paper attached to minutes of R&D Committee, 5 July 1967.

3. British Imperial Calendar and Civil Service List, 1967.

4. MH 166/256, Establishment Notice 136/66 11 July 1966.

5. British Imperial Calendar and Civil Service List, 1968.

6. British Imperial Calendar and Civil Service List, 1964.

7. MH 166/255, *Notes of the S&R steering committee*, 14 October 1966

of the Guillebaud committee's recommendation of a central research and statistics department. However, S&R never acquired a comprehensive mandate for R&D. The lead for building and engineering research remained with the HS division. Supplies and equipment research also remained under separate management in the Supply division. Medical research was administered by SR4 but led by the medical staff of the Department under arrangements that are discussed in more detail below. An R&D Committee (R&DC) was set up in April 1967 to achieve greater co-ordination across these organisational boundaries. Its terms of reference include reference to 'the programme', conceived of as a unitary activity. Actual administrative arrangements may have remained somewhat more fragmented, but the programmatic intent was clear.

To advise on the content of the programme of research and development to be sponsored by the department and on any matters arising from its compilation and Development and to keep it continuously under review.¹

The establishment of HS3-D in 1961; of the S&R division in 1966; and of R&DC in 1967 represents the emergence and incremental development of an administrative bureaucracy for a co-ordinated R&D programme. But to fully explain the breadth of the programme in the 1960s, the role of the medical civil service must be considered.

Medical input

As has been shown, the origins of HS3-D lay in concerns about efficiency and control. Its initial remit was for operational research, related to these twin goals, and did not extend to medical matters. S&R was set up to work across organisational boundaries, yet medical research remained officially outside its purview. Medical leadership was the additional ingredient needed before 'service-orientated medical research' could emerge as a significant stream of commissioning.² To appreciate why this was so, it is necessary to consider two closely-connected aspects of context. The first of these is the doctrine of clinical autonomy. The second was the existence of parallel medical and administrative structures in the Department.

In the lead-up to the 1946 NHS Act, the prospect of restrictions to professional autonomy had been one of the principal arguments of the British Medical

1. MH 166/973, *Minutes of the R&D Committee*, 11 May 1967.

2. The term 'service-orientated medical research' is from Cohen, *The Department's Role*, 7.

Association against the proposed nationalisation of healthcare. To defuse this argument, the government agreed to abide by the principle of clinical autonomy, even though doctors themselves subsequently struggled to explain exactly what this meant in practice.¹ Harrison argues that there was little challenge to the doctrine between 1948 and 1982 and that it co-existed with the commitment to efficiency. Policy statements were careful never to imply that doctors themselves needed to become more efficient whilst at the same time arguing that efficiency in administration would free up more resources for medical care.² The pursuit of operational efficiency in the environment within which clinical practice took place was legitimate for management. In contrast, the pursuit of efficiency within clinical practice itself was reserved for the medical profession. Medical leadership was essential for any research into medical practice - not just for expertise but also for legitimacy.

The medical civil service operated in parallel with the administrative service, reporting to the Chief Medical Officer (CMO) through its own hierarchy. Equivalent arrangements existed for dental and nursing staff, although with much smaller establishments. Parallel administrative and professional/specialist hierarchies were quite normal in the civil service in this period because of the career class system. The rigidities of this system necessitated cumbersome parallel structures to bring together the range of generalist and specialist knowledge needed for effective public administration. The convention of 'the precedence of the lay administrator' meant that responsibility for policy, financial control, and the management of departmental business was reserved for generalist administrator classes. The specialist classes were advisory, except where the management of specialist teams was involved.³ A parallel structure was, therefore, not remarkable in itself but the Ministry of Health was unusual in the size of its dominant specialist class, medicine, and the status of the head of this class. Under agreements originally reached in 1919, the CMO was

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1. Heather Tolliday, "Clinical Autonomy" in *Health Services. Their Nature and Organisation and the Role of Patients, Doctors, Nurses and the Complementary Professions*, ed. Elliott Jaques (London: Heinemann, 1978), 32-52.
 2. Stephen Harrison, *National Health Service Management in the 1980's. Policymaking on the Hoof?* (Aldershot: Avebury, 1994), 24-25.
 3. John Garrett, *The Management of Government* (Harmondsworth: Penguin, 1972), 16-21, 71-75.

granted pay and status equal to that of the Permanent Secretary, including direct access to the Minister.¹ Godber was firmly committed to a sizeable medical establishment, ensuring that the profession remained in a position to influence policy, whilst remaining unencumbered by administrative tasks.²

Cohen tells us that, on the professional side, a ‘small medical research section’ was set up in 1962 to promote ‘service-orientated medical research’ and that in 1967 resources for R&D were placed ‘under the joint management of the Medical Research Branch’ and SR4.³ Neither section nor branch appear in internal or published directories, which detail the medical staff only by grade prior to 1974. The explanation is that the medical staff were not organised into clearly defined organisational units like the administrative staff but were instead assigned advisory responsibilities within comparatively loose structures. Leadership for medical research was assigned to Cohen, who relied on the administrative structures under Cornish for administration.⁴ However, Cohen was not in a position of direct authority over Cornish, who reported to Rudoe. These working arrangements were significant for the development of the programme. They provided for steering of medical research, located safely under the direction of the medically qualified, and for operational research, under the direction of administrative civil servants. However, because administrative and medical staff worked together it was possible to blur the boundaries and commission work that did not fit neatly into either category. Cohen refers to the existence of an informal team that drove the development of the programme throughout the 1960s: ‘a few people who worked closely together whatever their formal affiliations in the Department’.⁵ This team was comprised of Cohen himself, the most senior member, and four others. Dr James Maxwell Glover (‘Max’) Wilson (1913-2006) worked with Cohen on the medical side.⁶ In 1968, he

1. William J. M. Mackenzie, *Power and Responsibility in Health Care: the National Health Service as a Political Institution* (Oxford: Oxford University Press, 1979), 154-5.

2. Sally Sheard, "Quacks and Clerks: Historical and Contemporary Perspectives on the Structure and Function of the British Medical Civil Service," *Social Policy and Administration* 44, no.2 (2010): 193-207.

3. Cohen, *Department's Role*, 7-8.

4. Interview with Dr Gillian Ford, Lewes, March 2013.

5. Cohen, *DHSS and the MRC*, footnote page 10.

6. Munk's Roll, Volume 12. <http://munksroll.rcplondon.ac.uk/Biography/Details/5589> (accessed December 2016).

was joint author of a seminal report on screening, commissioned by the World Health Organisation.¹ Cohen and Wilson were supported by Dr Gillian Ford, who joined the Ministry as a trainee medical officer in 1965.² On the administrative side, the team was led by John Cornish, assisted by Chief Executive Officer Leslie Best. This informal team brought a catholic approach and an openness to interdisciplinary studies.

The quality of leadership for research within the medical civil service, and the attention paid to research, depended ultimately on the Chief Medical Officer. George Godber persuaded Richard Cohen to move to the Department from his position as Second Secretary of the MRC in 1962. Cohen is described by those who knew him as ‘a highly literate scientist, with a reputation as a wit and a raconteur’.³ According to Holland, ‘Cohen was the individual who put in place the necessary organisation for the research programme within the Department of Health and was trusted by those in Government, in universities and in research councils so that the enterprise became successful’.⁴ In a similar vein, Cohen’s obituary in *the Times* tells us that his appointment as first Chief Scientist at the DHSS in 1972 was ‘the culmination of his achievement over ten years in developing its research programme’. If read without sufficient understanding of the parallel professional and administrative structures in place, such valedictory praise might lead us to imagine that Cohen was in sole and executive charge of the programme. This was not the case. Medical and non-medical interests were co-ordinated through the R&DC, which was chaired by F. W. Mottershead, the Deputy Secretary senior to Rudoe. Projects could be authorised by either Cohen or Rudoe (or Wilson and Cornish acting under their delegated authority) but in all cases such authorisation was subject to formal approval given by the administrative staff of S&R. The Deputy Secretary was the arbiter where agreement could not otherwise be reached.⁵ Later, these arrangements were changed so that joint authorisation of projects by both Cohen and Rudoe was required in all

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1. Anne Andermann et al. "Revisiting Wilson and Jungner in the genomic age: a review of screening criteria over the past 40 years," *Bulletin of the World Health Organization* 86, no. 4 (2008): 317-319.
 2. Interview, Gillian Ford.
 3. Obituary, Richard Cohen (anon). *The Times*, 3 February 1998, 21.
 4. Holland, *Improving Health Services*, 63.
 5. MH 166/973, *Research and Development*, discussion paper for R&DC, July 1967.

cases.¹ These observations are not made to belittle Cohen's influence but rather to point out that he was working within a structure that required agreement between medical and administrative leadership and ultimately reserved critical formal powers, such as the power to commitment funds, for the latter. It can be inferred, therefore, that Cohen drew on resources beyond pure position power to influence the emerging R&D programme. Prominent among these was intellectual leadership, as is evident from the esteem of his peers and the perspicacity of his writing. Equally important, perhaps, was his ability to work creatively with administrative staff for the fostering of cross-disciplinary, service-relevant research.

Customers for research

Prior to the setting up of S&R in 1967, research projects could, at least in theory, be initiated in any of the divisions of the Ministry of Health. The onus was on each division to identify and address its own knowledge requirements. Putting to one side any questions about how the Ministry fulfilled its role as proxy customer for the NHS, this arrangement appears, on the face of it, to be perfectly functional. In practice, there were two significant problems. The first was that the resources available to divisions varied greatly. The hospital service was in a privileged position. It had, after 1961, a dedicated bureaucratic resource for research commissioning in the form of HS3-D. From 1963 onwards, HS3-D controlled the use of the vote for 'medical, social and operational R&D'. It was also able to top-slice the hospital revenue and capital budgets to fund research projects, as it did for special medical developments and the experimental computer programme. HS3-D, and later SR4, had the further advantage of flexibility in drawing on either of these votes, as circumstances dictated.² In comparison, the research interest of the EC and LA divisions (which dealt with general practice and local authority health and welfare services respectively) were hindered by the lack of dedicated funding and administrative resources. Consequently, comparatively little research was commissioned in these fields.³ For example, ambitions to develop a Health Centre for the specific purpose of evaluation were frustrated by the withholding of capital

1. MH 166/975, *Central Policy Control*, 1969.

2. MH 166/973, *Notes on the Estimates for Research and Development 1967/68*. See chapter 4 for details of votes.

3. MH 166/975, *Central Policy Control*.

for such purposes.¹ The second problem was simply that too many pressing topics either cut across divisional boundaries or fell between divisions.

In principle, it is for the divisions to put forward their own proposals for research in support of their administrative responsibilities, but in practice this system has not always operated satisfactorily. Many problems...concern more than one division or fall between divisional responsibilities; some branches, under general pressure of work, award research a low priority. Consequently, the stimulus for projects has usually come from sources other than the divisions eventually assigned sponsorship responsibilities, and their interest has been lukewarm.²

The principal source of stimulus for projects, other than divisions, was the ‘informal team’, working on a discretionary basis with limited oversight and growing budgets. Prior to its dissolution in 1966, ACME also endorsed research into management practice and hospital operations.³ The exact mix of inputs varied between projects. At a meeting of the R&DC in July 1967, Cohen estimated that three quarters of live projects had been initiated by the informal team, rather than originating with divisions. For this working mode, personal connections and networks were pivotal.⁴ The style of working before 1967 reflected this requirement and might best be described as ‘enlightened patronage’.⁵

From 1967 onwards, the R&DC introduced a more structured approach, codified in internal guidance. This sought to regulate exchanges by defining three roles within the health research economy: sponsor, agent and administrator.⁶ The ‘branch or division with the principal interest in the subject or service under study’ was to act as the sponsor. The sponsor was to consider the implications of embarking upon the project and decide on the action to be taken based on the research findings. This was an attempt to get divisions to take responsibility for identifying their research needs. The identification of sponsors for all projects became an imperative for the R&DC,

1. MH 166/974, R&DC, meeting notes, 28 March 1968. For the wider context, see Michael Ryan, “Health Centre Policy in England and Wales,” *British Journal of Sociology*, 19, no. 1, (1968): 34-46.

2. MH 166/973, *Research and Development*.

3. MH 166/255, *Sponsorship within the Ministry for Research Projects*, 2 December 1966.

4. Interview, Gillian Ford

5. All interviewees involved in this period immediately recognised this characterisation when it was put to them.

6. MH 199/973, *Appendix to EN 68/67*

which assigned sponsors retrospectively to projects that had not actually been initiated by divisions. However, the guidance acknowledged that projects might still be researcher-initiated, in which case a sponsor would have to be found after the event. For health and welfare research, there was also a pragmatic acceptance that there would be a continuing role for S&R in the initiation of projects, as the divisions could not always be relied upon to be sufficiently pro-active.¹ It follows that the mere identification of a sponsor in project listings cannot be assumed to represent genuine divisional engagement.

The agent was defined as the researcher or research organisation undertaking the project. This might be an in-house resource but, given the scarcity of these in the health department, it would more often be ‘a university, research institute, professional body, or hospital or other health service authority to whom a grant is made’.² The ‘administrator’ was the intermediary between sponsors and agents, assisting the former in the development of a research specification, managing the process of finding researchers, assessing proposals, overseeing progress, undertaking routine administration and resolving problems.

S&R’s eagerness to identify sponsors can be related to an underlying question that was, by this time, beginning to weigh more heavily as final reports from early commissions began to flow into the Department. How was this research to be used? The remit of HS3-D had included ‘collation of information regarding good practice’, which was discharged through the production of annual catalogues of hospital studies. However, this was an exercise in which HS3-D was acting as little more than a directory provider and did not concern itself with the active dissemination of findings. In any event, for locally-initiated studies, these might not be made known to the Ministry. In the early months of S&R, Rudoe produced a paper making the case for a co-ordinating committee in which he refers to the fact that some of the early studies had revealed ‘problems that are none too easy to solve’. He goes on to observe that ‘if the conclusions of such studies are accepted by the Department as valid, how to act on them may nevertheless pose very difficult problems’. On this

1. MH 166/974, *Review of Research and Development*, 1st April 1968

2. The term ‘in-house’ resource refers to a researcher or research group employed by the Department. ‘Extra-mural’ research is that undertaken by all other suppliers, for example universities, research institutions, etc.

basis, he argues that R&DC should adopt a ‘planning and forecasting’ role. This was needed in the absence of any other unit in the Department with planning responsibilities.¹ This suggestion was never acted upon and the final descriptions of the role of S&R make no reference even to dissemination, let alone implementation.² Instead, the responsibility for implementation was firmly assigned to the sponsor. The central organisation for R&D was thus set early into a path where its primary focus was on research production rather than utilisation. Responsibility for the latter was assigned to others – whether other divisions in the DHSS or managers and clinicians in the NHS.

Suppliers of research

Blume observes that technological innovation in medicine requires a convergence of interest between a health care system and suppliers of medical devices. Suppliers are active participants in the development of the organisational field.³ This observation is made in the context of medical equipment R&D, but it is equally applicable to HPSSR. The departmental programme was procured almost entirely from external suppliers before 1970. This suggests that supply-side influences are likely to have been particularly strong during the emergence and growth phases.

Reliance on in-house R&D was a model widely employed in other government departments in the 1960s, so the Department’s preference for external suppliers was unusual and calls for an explanation.⁴ There were perfectly good arguments for the use of in-house units, which were put to the R&DC in 1968. In-house units were ‘more amenable to administrative controls’ and better able to ‘obtain speedy answers to particular problems’. Better developed internal resources would balance the Department’s substantial programme of research commissioned from external suppliers. Despite these arguments, the committee concluded that ‘for the time being the Department’s research fund should be used to support extra-mural units,

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1. MH 166/255, *A Research Steering Committee*, paper by Rudoe, 1 December 1966.
 2. MH 166/255, *Functions of the Statistics and Research Division*
 3. Stuart S. Blume, *Insight and Industry. On the Dynamics of Technological Change in Medicine* (Cambridge, MA: MIT Press, 1992), 12-13.
 4. Office of the Minister for Science, *The Management and Control of Research and Development*.

programmes and projects, rather than departmental establishments'.¹ This decision was partly practical. To have built up capacity from a very low base and across the wide range of policy domains would have been a slow process, with the requirement for establishment approvals from Treasury.² The inflexibility of the career class structure, together with the low pay and poor career prospects for research officers, would have made it hard to assemble the multidisciplinary teams needed.³ A slow process would not have fitted with the imperative for rapid development of analytical capacity once the politics of investment had crystallised in the Hospital Plan. It was much quicker to look for external supply, whilst boosting funding by top-slicing the hospital vote. The one experiment in setting up an in-house unit conducted during the 1960s, the Social Science Research Unit, did not prove to be a success. This had been established with only four posts, which was deemed to be too small to have an impact. Attempts to increase the establishment had 'fallen foul of our manpower ceiling'.⁴ Even worse, The Department failed to recruit staff up to the original establishment, tiny though this was, which was attributed to the type of work involved. This was described as 'mainly minor project work...of a simple fact-finding nature' and as 'not conducive to the retention of senior staff of good calibre'.

The favouring of external research reflected more than just these practical considerations. The Department wanted to establish the credentials of its programme as a funder of high quality, authoritative research and the use of external researchers was a strategy towards this end. Cohen says that 'we felt that the trust of research workers, and outside confidence in their results, would only be won if we established unassailable credentials of quality and scientific independence'.⁵ He adds that there was a shortage of researchers in many relevant fields and so a further objective was the building of capacity in the external supplier base. The Department anticipated that fostering of research groups through commissions would give rise to a situation where 'they could be absorbed by the universities and MRC without embarrassment'.

1. MH 166/974, *Research Units*, 1968.

2. From the Civil Service Department after 1968.

3. Garrett, *Management of Government*, 109.

4. MH 166/974, R&DC minutes, 28 March 1968.

5. Cohen, *DHSS and the MRC*, 10-11. Walter Holland confirms that Godber shared this belief.

The extent to which the Department was familiar with and could draw on an established researcher community varied between fields. Social medicine, for example, could offer an established community that was well-connected to the medical civil service. Richard Cohen would have brought his own network when he joined the Department from the MRC in 1962. He comments as follows on the situation for service-orientated medical research.

Fortunately, in community medicine and epidemiology, and indeed in medicine more generally, there existed research workers with a spontaneous interest in practical health service questions...In a very few years it proved possible to set up, in different parts of the country, a number of research units and long term programmes, mainly based on epidemiology and community medicine, with broad or more specific terms of reference. Under these arrangements, we were able to concentrate a variety and quality of thought on what research could do for the problems of the NHS which I do not think we could have enlisted so quickly in any other way.¹

Established units receiving early commissions from the Department included the MRC Epidemiology Unit under Archibald Cochrane; the Units of Health Services Evaluation and Clinical Epidemiology in Oxford, led by Richard Doll; and the MRC Social Medicine Unit under Jerry Morris. Other prominent figures to enjoy early patronage included Thomas McKeown, who had been Professor of Social Medicine at Birmingham since 1945. As well as these established units, the Department also supported 'rising stars'. Most of these adopted terms other than 'social medicine' to describe their fields of expertise, notably 'epidemiology' and 'community medicine'. Such choices reflect a gradual demise in the influence of social medicine as it became increasingly isolated from the practice of public health and focused on academic rigour within a narrowing paradigm.² One of the rising stars was Walter Holland and the naming of his 'Department of Clinical Epidemiology and Social Medicine' was, by his own account, carefully considered. This name was designed to

1. Cohen, *DHSS and the MRC*, 11.

2. Dorothy Porter, "The decline of social medicine in Britain in the 1960's" in *Social Medicine and Medical Sociology in the Twentieth Century*, ed. Dorothy Porter (Amsterdam: Rodopi, 1997, 97-119). Shaun Murphy and George Davey-Smith. "The British Journal of Social Medicine: what was in a name?" *Journal of Epidemiology and Community Health* 51 (1997): 2-8.

establish medical credentials, secure medical pay grades, and position a new research group with a foot in both established and emerging fields.¹

‘Medical care research’ was another new term favoured by rising researchers and was generally used to describe ‘operations research’ into clinical practice. The Department supported the ‘Medical Care Research Unit’ at the University of Newcastle, led by D. J. Newell, as a designated unit. Another favoured term was ‘health services research’, which had a more organisational and less exclusively medical flavour. Michael D. Warren, moved from London School of Hygiene and Tropical Medicine to the University of Kent in 1971 to head up a new ‘Health Services Research Unit’, which became another of the Department’s designated research units.

In mental health services research, the Department looked more to established researchers. This was a small field dominated by the Institute of Psychiatry, one of the specialist postgraduate institutes in London. Units based at the Institute and receiving departmental commissions included the MRC Social Psychiatry Unit, the Special Hospitals Research Unit and the Addiction Research Centre. Outside London, the major centre was Newcastle upon Tyne where the Department supported programmes of work by Sir Martin Roth and his collaborator David Kay.

For non-medical research, the position was rather different. In operational and social research, the department lacked both expertise and networks. Although the medical civil service might become involved when projects touched on medical matters, it did not take the lead on such projects and did not, at least initially, have access to networks in this field. The Department had to rely instead on a combination of administrative leadership, medical advice and researcher initiative. John Cornish appears to have exercised considerable initiative, and been allowed considerable freedom of action, in drawing these elements together. The principal suppliers of operational research (OR) to the Department in the 1960s were National Coal Board OR Unit and some NHS bodies. The NCB unit exemplifies how OR was developed in the nationalised industries during the discipline’s pre-academic phase.² The unit

1. Cook, *Oral History - Walter Holland*.

2. Maurice W Kirby, *Operational Research in War and Peace: The British Experience from the 1930's to 1970* (London: Imperial College Press, 2003), 286-7.

received a stream of commissions from the Department until 1980.¹ OR capacity had also been developed in the NHS, on the initiative of some Regional Hospital Boards. The most significant of these was Oxford where local influences included the support of the Nuffield Provincial Hospitals Trust, which was based in the city until 1962, and the strength of academic social medicine. The development of an OR unit was encouraged by the RHB Chairman, Sir George Schuster (1881 to 1982). Schuster was a Liberal politician who was involved in national productivity initiatives in the immediate post-war period. He argued for the introduction of OR throughout the NHS in a postscript to one of the Acton Society Trust series on *Hospitals and the State*.² The Department commissioned the Oxford unit to study various aspects of patient care.

As the Department began commissioning operational and social research in 1963 it was faced with a limited choice of suppliers. The situation was subsequently eased by expansion in the social and operational researcher communities during the 1960s. Some of this occurred in universities as an aspect of the general growth in higher education. The Universities of Sussex, Keele, East Anglia, York, Newcastle, Lancaster and Strathclyde were all founded between 1961 and 1964 and a further wave of new universities followed the Robbins Report. New departments were set up that became long-term suppliers to the Department, for example the Social Research Unit at Bedford College, London. This was established in 1965 under the direction of Margot Jefferys, who moved to Bedford because she could not persuade the London School of Hygiene and Tropical Medicine to establish a medical sociology unit. In 1969, she was joined by another refugee from medical dominance, when she recruited the social anthropologist George Brown from the MRC Social Psychiatry Research Unit.³ Jefferys' unit went on to undertake several commissions for the Department, including studies of health and welfare needs in the London Borough of Camden. For medical sociology, the path was one of differentiation to develop a new field within the academic community. For OR, it was more a case of a discipline that had established itself of a non-academic basis before becoming adopted by

1. MH 170/118.

2. Acton Society Trust, *Creative Leadership in a State Service*, 55.

3. Margot Jefferys, "Social Medicine and Medical Sociology 1950-1970: The Testimony of a Partisan Participant," in *Social Medicine and Medical Sociology in the Twentieth Century*, ed. Porter, 120-136.

universities. The first Chair in Operational Research in the UK was established at the University of Lancaster in 1963 and awarded to Patrick Rivett. Rivett's career trajectory mirrored the development of OR. Before becoming an academic, he served in wartime with the Ordnance Board. He then directed the NCB OR unit, before moving on to Lancaster.¹ The early 1960s also saw the establishment of new departments in management and organisational studies. Some researchers in these departments were drawn to the under-investigated NHS as an arena for their work. The organisational psychiatrist Elliott Jaques, who founded the School of Social Science at Brunel University in 1964, provides an example. Like Rivett, his academic career was preceded by military and industrial experience. Jaques established a Hospital Organisation Research Unit within the School and this became a designated unit (see below for a further discussion of designated units). Other examples could be given.

Not all the expansion in supply came from the university sector. The 1960s were notable for the number of new, not-for-profit research institutions established outside the sector. The Institute for Operational Research provides an example. This was formed in 1963 as a joint venture of the Operational Research Society and the Tavistock Institute of Human Relations.² Once the Institute had been discovered by the Department it received several commissions. Independent institutions were especially important on the social research side, reflecting the slow pace of institutional development for the social sciences and the vitality of the 'politics of expertise' in this period.³ Examples of independent organisations founded during the 1960s and receiving commissions from the Department include the National Children's Bureau, founded in 1963 and directed by Dr Mia Kellmer-Pringle.⁴ The Bureau undertook studies into the health and welfare of children with special needs. The National Institute for Social Work was founded in 1961. E. M. 'Tilda' Goldberg, the Institute's Research Director, became the Department's main supplier of work into the organisation and outcomes of social work. The Institute for Social Studies in

1. Obituary, Professor Patrick Rivett. *The Independent*, Alan Mercer, 18 August 2005.

2. Institute for Operational Research. *Institute for Operational Research. The First Four Years 1963-1967*, London, 1967.

3. Hilton, *Politics of Expertise*.

4. Obituary. "Mia Kellmer-Pringle", Roy Evans, *Early Child Development and Care* 11, no. 3-4, 1983: 323-324.

Medical Care was spun out of Michael Young's Institute of Community Studies in 1970. Under the direction of Ann Cartwright, the Institute was awarded a steady flow of commissions including evaluation of a transport service in general practice; the acquisition and consumption of medicines, care of the dying, and the impact of birth control services. The Department also took an interest in the voluntary hospice movement and awarded commissions to Cicely Saunders for studies into end-of-life care.

For supplies and equipment research, the supplier market was rather different because it had always been mixed, including input from universities, industry, and scientific and technical staff of the Department and the NHS. In many cases, the development of new products was critically dependent upon clinicians putting in time alongside their other duties and using 'soft funding' to advance projects.¹ This mixed picture persisted but the 1960s also saw the emergence of military R&D establishments as a new source of supply. Such establishments sought diversification into civilian work, with variable success, as defence R&D spending began to decline.² The Department commissioned medical device development work from the Atomic Weapons Research Establishment and the Service Electronics Research Laboratory. The Microbiological Research Establishment was awarded a substantial grant for the development of cytotoxic agents. The Atomic Energy Research Laboratory at Harwell was commissioned for various projects related to radiotherapy and medical imaging.

Putting this overview of supply-side influences together with that of organisational arrangement for R&D management, a picture emerges. The emerging programme of the Department was subject to very strong external supply-side influences and highly receptive towards researcher-initiated projects. However, strong supplier influence is not the same as capture by suppliers. The Department opened itself up to a strong supplier-lead as a conscious strategy, allowing word to get around that central funding was available and that un-solicited proposals would

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1. Julie Anderson, Francis Neary and John V. Pickstone, *Surgeons, Manufacturers and Patients. A Transatlantic History of Total Hip Replacement* (Basingstoke: Palgrave Macmillan), 2007.
 2. Richard Coopey, "Restructuring civil and military science and technology: The Ministry of Technology in the 1960s," in *Defence Science and Technology: Adjusting to Change* eds. Richard Coopey, Matthew Uttley and Graham Spinardi (Chur: Harwood, 1993).

be considered.¹ Faced with a plethora of choice about which aspects of the NHS to investigate, it made sense to allow researchers to do much of the spade work in identifying researchable topics. This was also a good strategy for identifying emerging talent, especially in less familiar fields. Any proposals received would still be screened using tests of policy-relevance, proposal quality and researcher reputation and the relevant researcher communities were not, in this period, so large that the Department would be inundated. Where a specific topic requiring research was identified, the Department was still, in some cases, able to place the onus on the research community to develop ideas and proposals, as with screening for cervical cancer. This was so for medical research from the outset, because the medical civil service possessed, or could use its networks to obtain, personal knowledge of researchers and their worth. It must also have become increasingly true for other fields over time as the Department accrued knowledge of the social, operational and management researcher communities. By the later 1960s, the Department was ‘fishing in a well-stocked pond’ for both research ideas and NHS needs and the art was to match the two and ensure quality.²

Given the rapid expansion and diversification of the researcher base, enlightened patronage was a viable and economical mode of operation. However, it did not sit comfortably with the rhetoric of science policy, which stressed the need for governments to steer research using explicit criteria, intended to maximise the social returns from publicly-funded research.³ The growth of departmental bureaucracy and concerns about research utilisation also began to put pressure on this *modus operandi* from 1968 onwards. The requirement to identify sponsors for all projects placed a greater onus on beginning with customer needs rather than supplier interests. However, these processes by no means effected a complete transformation, as reflected in the pragmatic acceptance that sponsors for some projects would need to be identified after the event, rather than being in the driving seat from the outset.

1. Interview, Gillian Ford.

2. Gillian Ford.

3. Maurice Goldsmith and Alan L. Mackay, *The Science of Science* (Harmondsworth: Penguin, 1964).

The institutionalisation of research supply

In the departmental programme's initial phase, the practice was to commission individual projects, often proposed by researchers. As the scale of the programme grew, SR4 introduced 'programmes' and 'designated units'. A programme was made up of several related projects, which might be either contemporaneous or sequential, within a single theme and led by the same director. Each project was subject to individual approval. 'Designated units' were given term contracts of five to seven years and left with considerable latitude to undertake programmes or projects within a broad field agreed with the Department. Programmes of work and funding were subject to annual review by an advisory committee.¹

The R&DC saw the designated unit as the mature organisational model for its suppliers, envisaging that many holders of programme grants would attain unit status in due course. The committee saw several advantages in the model. Term funding allowed greater employment security, assisting recruitment and retention, and allowing a stable group of researchers to develop knowledge and skills that could be applied to a range of problems. The Department envisaged that designated units would provide standby capacity that could undertake studies of specific issues at short notice. Units were also expected to become centres of expert advice and 'act as a focal point for knowledge of research...and its implications for policy-making'.² Unit policy would thus build HPSSR capacity. It would also be more economical, reducing the search costs involved in finding new research contractors and the process costs involved in assessing and monitoring individual projects. Unit policy would outsource the task of keeping up-to-speed with research and its implications for policy. The designation of units would provide continuity of supply. This was particularly important for operations and social research as 'good research workers in these disciplines were, and still are, in short supply and can only be caught in the brief season in the penultimate stage of a project, when they have begun to think about their next project but have not committed themselves'.³

1 McLachlan, *Portfolio 1*, 228-229.

2. MH166/974, *Research Units*.

3. MH 166/974, *Research Units, Current Position*, May 1968

The Department was mindful of the need to reserve some funding for projects other than those originating with the designated units. A paper by SR4 (Cornish) argued that ‘unless we do so, we rob ourselves of new recruits for the study of our problems, and a source of new recruits for our work’.¹ With this provision made, it saw the future as being one where the programme was undertaken mainly by designated units working in partnership with the Department. Designation was made initially by S&R and later by the R&DC and the process does not appear to have been especially onerous. For example, the Institute of Biometry and Community Medicine at the University of Exeter was designated in 1968. This appears to have come about because an adviser to the Department had been looking for a site for an ‘experimental operational research unit to study health and welfare services’. Exeter was identified as potentially suitable. The co-directors of the project, J. R. Ashford (a statistician) and N. G. Pearson (a medical doctor) had worked together at the NCB pneumoconiosis research unit before moving to Exeter and embarking upon a survey of the local population, beginning in 1966. The large-scale data analysis requirements arising from this project coincided with RHB interest in computerisation and planning for a new hospital. Exeter became an ECP site.² Ashford and Pearson were already known to the Department because of their work in epidemiology and medical informatics, which the Department’s adviser interpreted as ‘operational research’. Against this background, a submission of just over four sides plus financial appendices was sufficient to persuade the R&DC to designate the Institute and award a grant of £315,000 for a period of six years.³

By introducing designated units, the Department was following a model developed by the MRC. The unit concept had evolved at the MRC as an alternative to the direct employment of staff at the National Institute for Medical Research. The governing principal was that a unit was built around a chosen leader. According to Thomson, ‘either the selection of the director was the initial step, or a particular man was in view from an early stage in the deliberations’. It followed that a unit ‘should cease to exist as such when the man retires or dies, or even if he moves to another

1. MH 166/974, *Research Units, Current Position*, May 1968.

2. Davies, *Experimental Computer Programme*.

3. MH 166/975, *University of Exeter. Proposed Institute of Biometry, Community Medicine and Operational Research*.

post unless he can take the team with him'.¹ This approach was consistent with the MRC's strategy of supporting individual scientists that had either established their reputation, or were judged to be of promise. Because the MRC rejected instrumentalist views of research use, it did not base its decisions on the likelihood of the research produced having any obvious practical application. The Council was the 'self-chosen backer of excellence'.² The Department's thinking was along the same lines but its instrumental view of research led it to balance assessment of the quality of the unit director with some sense of needing to assemble a balanced portfolio of relevant skills and interests. So, for example, in backing both Holland and Cochrane's units for designation it noted that although both units offered similar competencies, it would be advisable to designate both because Holland was the 'young flyer' and the Cochrane the 'elder statesman'.³

In 1968, 21 units were under consideration for designation. A further four units were classified as 'signs propitious'. Despite this, only ten units had been designated by 1973. In the same year, there were 43 research groups operating under programme grants (later relabelled 'period contracts').⁴ During the 1970s the Department adopted the practice of awarding 'rolling contracts', i.e. contracts of no specified duration subject to periodic renewal, rather than term grants as a means of supporting units with which it wished to maintain a longer-term relationship. The key distinction then became that between units on rolling contracts and other units. By 1981, 34 units were supported on rolling contracts.⁵ Details of units receiving long-term support in 1973 and 1985 are provided in appendix 3.

The contribution of charitable foundations

The grant-making activities of the Nuffield Provincial Hospitals Trust added to the dynamic of growth. As previously discussed, the Trust took advantage of the university funding system to build research capacity on a sustainable basis. It favoured a co-funding approach with both NHS authorities and the Department, and

1. Tomson, *Half a Century*, vol. 1, 38.

2. Rose and Rose, *Science and Society*, 113.

3. MH 166/974, *Research Units, Current Position, Appendix*.

4. McLachlan, *Portfolio 2*, 244-250.

5. Department of Health and Social Security, *The Support of Health and Personal Social Services Research. A Report of the Chief Scientist's Advisory Group* (London: DHSS, 1982).

sought to connect these authorities to university-based researchers. This became standard operating policy from 1966 onwards.¹ For example, the Ministry, Wessex RHB and Trust jointly funded a survey of the prevalence of ‘sub-normality’ in the Wessex Region. This was undertaken by RHB and local authority staff in partnership with the University of Southampton. The expectation was that the findings from the survey would predict future requirements for hospital and community-based care.² In another example, the evaluation of a pre-discharge ward at Dryburn Hospital, Durham was jointly sponsored by NPHT and the Newcastle RHB and undertaken by a research team drawn from the University of Durham, the RHB and the Durham HMC.³

Many of the projects supported in this way were surveys, reflecting the Trust’s experience that service innovations ‘could not immediately be selected and designed because often the basic data did not exist’.⁴ Once the Trust was satisfied that a satisfactory baseline of data was available, it was prepared to proceed with the funding of ‘experiments and demonstrations’. The Trust also funded studies undertaken by RHB operational research units, notably at Oxford, Manchester and Newcastle, and by independent research institutes. However, its policy direction was such that, by the mid-1960s, the greater part of its grant-making was directed towards universities. Of 89 studies funded between 1963 and 1968, two-thirds were either solely university-based or involved a university working in partnership with an NHS body.⁵ Over the same period, the Trust funded 44 demonstration projects in hospitals and community services.

The King’s Fund also stimulated the emergence of HPSSR, regardless of its ambivalence towards the idea of a departmental programme. The Fund is itemised in the catalogues of hospital studies from the mid-1960s as both sponsoring and undertaking studies. However, this was not sponsorship through grant-making, because the Fund did not make research grants to external bodies. Studies were supported instead through the convening of expert working groups and the provision

1. McLachlan, *History*, 154-157

2. MH166-297, HM(64)13 *List of Hospital Studies*, 36.

3. HMC(64)13, 52.

4. McLachlan, *History*, 66.

5. *Ibid.* 140-146.

of practical support by in-house staff. As an example, the Fund sponsored a study to assess the place of computers in accounting for hospital costs and to establish the relationship between the cost of care and its quality.¹ This was undertaken by a working party including the finance officers of four London hospitals. Another study looked at ‘relieving ward sisters by use of ward housekeepers’. This involved the nursing staff of the Whittington Hospital, London.² The working groups were supported in both cases by the staff of the King’s Fund Hospital Centre. Formed in 1963 from the Division of Hospital Facilities, the Hospital Centre provided an information bureau and advisory service. It collected and classified technical information on all aspects of hospital administration and responded to enquiries from all comers by drawing on this repository of knowledge.³ The Centre also undertook a small number of special studies and investigations. These included a study into the problems of cleansing and sterilization of hospital blankets; comparative testing of different flooring materials and floor cleaning procedures and investigations into the use of plastic equipment in hospitals.⁴ These studies were all conducted by the staff of the Division in collaboration with the NHS. In these ways, the Fund provided a stimulus to the emergence of HPSSR, regardless of its avoidance of grant aid to the emerging departmental programme.

The MRC relationship

The emergence of a departmental programme of service-relevant research appears to have caused little disturbance to relations with the MRC. Science policy after Trend had left both organisations largely free to plough their own furrows. During the 1960s, touching points were few. The CMO participated in the Clinical Research Board with ‘assessor’ status.⁵ The Department funded some MRC units to undertake research. The two organisations had a shared project in the planned development of a new Clinical Research Centre in an NHS Hospital. The Clinical Research Board was

1. HMC(64)13, 19.

2. HMC(64)14, 28.

3. Prochaska, *Hospitals of London*, 206.

4. The King Edward’s Hospital Fund for London, 63rd Annual Report (1959), 25-29.

5. Thomson, *Half a Century*, vol. 2, 26.

responsible for oversight of the Locally Organised Research Scheme, as recommended by the Cohen Report.

In some writing, there is a suggestion of friction between the two organisations during the 1960s, arising from the disinclination of the CRB to support research relevant to the NHS.¹ Richard Cohen is dismissive of such suggestions. He argues that the needs of the Ministry of Health called for:

...an orientation different from that of traditional medical research and there was never any question then or later of the MRC accepting responsibility, either alone or in partnership, for the new field as a whole, though individual items...might be expected to attract its interest and be undertaken by it on its own terms.²

Cohen goes on to claim that the decision to set up a departmental programme was fully endorsed by the MRC Secretary, Himsworth, and generally welcomed by the Council. To deliver its new programme, the Ministry recognised that it needed to draw on MRC units. The Council appears to have been entirely content with this arrangement and, indeed, there is no reason why it should not have been as it brought a new stream of funding. The acceptance of departmental funding for potentially contentious studies might have caused difficulties for the MRC. Cochrane's studies for the Department certainly caused contention with the medical profession, but in his memoirs, he speaks only of the support offered by both the MRC and the Department.³ The planned Clinical Research Centre at Northwick Park in North London was a joint project between the MRC, the Department and the North West Metropolitan Health Board. The project was intended to be the definitive response to the obstacles to clinical research which still lingered in the NHS.⁴ It was first approved in 1960 but did not become operational until 1970, thus requiring a long period of collaborative planning for a project that was cherished by all three parties.

1. Thomas P Whitehead, "Before and after the Rothschild Report," in *Five Years After: A Review of Health Care Research Management after Rothschild* ed. Gordon McLachlan. Oxford: Oxford University Press for the Nuffield Provincial Hospitals Trust, 1978: 1-49.

2. Cohen, *DHSS and the MRC*, 6.

3. Archibald L. Cochrane and Max Blythe, *One Man's Medicine. An Autobiography of Professor Archie Cochrane* (London: British Medical Journal, 1989), 187-205.

4. Thomson, *Half a Century*, vol. 2, 32-33.

One exception to this picture of harmony was the Locally Organised Research Scheme, which did cause some tension between the two organisations. LORS, a legacy of the Cohen Report, was intended to support small, locally-initiated clinical research projects. Regional Hospital Boards and Boards of Governors allocated funding through local committees. Each Board was expected to submit annual reports to the Ministry of Health who would 'seek the advice for the central organisation for clinical research [the CRB] upon them'.¹ Allocations for LORS were first made in 1958/9 at a modest £36,425, this figure being derived from the 1954 survey of clinical research.² The scheme ran into difficulty on two fronts almost immediately. First, it quickly became clear that the CRB had little interest in small scale NHS clinical research. A decision to ask for reports only once every five years was taken as early as 1959. Second, Boards were disappointed with their allocations as growth in local clinical research outstripped funding. Both the Ministry and the MRC appear to have omitted to communicate the workings of the system to the hospital authorities and the Ministry continued to ask for annual returns. Consequently, blame was directed towards the MRC, which was seen as the rationing body, but which in fact had no control over the budget.³ Some Boards even made requests for the approval of specific schemes directly to the CRB, to MRC consternation.⁴ The Council had no desire to get involved with small projects in the NHS and sought advice from Richard Cohen, who produced a discussion paper on the future of the scheme in March 1963. However, the matter was left unresolved and hospital boards were still criticising the MRC for its alleged failings in 1966.⁵ It was not until 1972 that a process was put in place to finally resolve these difficulties. This took the form of a joint working party between the Department and the MRC under the chairmanship of Sir Douglas Black, the main conclusions of which were as follows.

...the need for a locally-organised research scheme is as strong now as it was in 1953...we recommend that it should be continued. We fully endorse our predecessor's definition of its two main purposes, namely to foster the research spirit in medicine which is demanded by the highest

1. FD 9/696, MRC 59/812.

2. FD 9/696, MRC 59/238.

3. FD 9/696, various memos.

4. FD 9/697, *Geffin to Herral, 11 December 1962*.

5. FD 9/1283, Correspondence between Himsworth and Godber.

standards of practice and to facilitate the discovery and encouragement of local research talent throughout the health service.¹

The fiction that the MRC could provide oversight of the scheme was only abandoned at this point. The working party recommended that a single adviser from both Department and Council be appointed to each regional research board and that a five-year general progress report should be considered jointly by the Chief Scientist's Organisation at the Department and the CRB.²

The overall picture for MRC/Department relations in the 1960s, then, is one of operational co-operation without strategic alignment. Both organisations had more than enough to be getting on with in their own fields and were willing to co-operate where it was mutually advantageous. The MRC, despite its past hegemonic tendencies, appeared relaxed about the activities of the Department. These presented no challenge because they were not the type of research that the MRC would either fund or pursue itself. The doubling of the MRC's budget over the decade doubtless contributed to this tolerant frame of mind. LORS became an irritant, revealing the MRC's lack of genuine interest in seeking to control clinical research undertaken in the NHS.

The dynamics of growth

The evidence presented above shows how the Department created a growth dynamic. It began by linking the development of an R&D programme to the twin goals of efficiency and control. It built up a bureaucracy for research commissioning that had the appropriate attributes for the circumstances faced. This bureaucracy effectively blended administrative and medical leadership and was small enough to work in informal ways and be agile. It benefited from continuity of individuals in key positions. The style of working encouraged and harnessed researcher initiative at a time of expansion in the research community. A style of enlightened patronage, with little formal process and decisions taken by a small group, proved highly effective for getting the programme off the ground. This small group was not interested in promoting one research discipline or tradition above another but adopted a catholic approach in which it was prepared to support any research project so long as it was

1. MH 166/437, *Report of the Joint Working Party*, para. 38.

2. *Ibid.* para 48.

well-planned, looked likely to be competently delivered and was of ‘a precise and practical relevance to the operations of the NHS’. The Department was prepared to take risks and back new ideas as part of this open-minded approach. In 1967, more formal arrangements were put in place to encourage divisions to take greater ownership of research. However, the R&DC remained small and enlightened patronage was not so much abandoned as placed within a more formalised framework. The introduction of research programmes and designated units streamlined commissioning processes and made it possible for the small central bureaucracy to support a rapid rate of growth.

External forces also contributed to the growth dynamic. The universities, independent foundations and other sites of researcher activity were all undergoing growth in the 1960s. In this environment, the research community sought to differentiate itself and colonise new niches in the academic ecosystem. Emergent disciplines such as medical sociology, operational research and epidemiology sought out the Department as a new source of funding that was more sympathetic than the MRC. The Department encouraged the supply-side contribution by being receptive to researcher’s ideas and initiatives, whilst seeking to balance this with the identification of customers for research. It institutionalised the supply of research through the designation of units, outsourcing intellectual leadership to unit directors. The NPHT and King’s Fund made their own contribution to the growth dynamic in their different ways, as described.

The R&D Committee proved effective in making representations for resources, continuing to make the link between R&D and efficiency. It consistently argued that the programme needed rapid growth so that the Department could catch up from its very weak starting position in research. It drew attention to the small size of the R&D budget as a proportion of total NHS spending. The Treasury proved receptive to these arguments, increasing the votes for research year on year. Steady growth in funding meant that the Department could respond to both researcher initiatives and its own perceptions of need. The mechanism of top-slicing the hospital vote for R&D purposes added substantially to the resources available. By the end of the decade, the Committee was still using the same arguments to make the case for an accelerated rate of growth.

The question was raised whether the forecast annual increase of 9 to 12 per cent at 1968/9 prices could be justified, having regard to the growth rate of 3 to 3½ percent of the department's expenditure as a whole. The committee were satisfied that because of the comparatively recent start of the R and D activity a more rapid growth than the departmental norm was to be expected for some time. They were also satisfied, following the recent review, that there was scope for more useful and rewarding research, much of which might be expected to bring economies.¹

Later that year SR4 supplied the Secretary of State with a briefing note making the economic case for greater investment in health-related research as background for a ministerial steering committee on economic policy. This focused on the economic benefits of a more efficient NHS and a stronger medical equipment industry.² It also made a well-crafted submission to a 'functional review' of government R&D organised by the Cabinet Office.³ In 1970, the R&D Committee minutes record that the Secretary of State was 'satisfied that the departments research and development programme was on the right lines and that a rate of growth of up to 10 percent a year would be reasonable having regard to the present level of expenditure reached'.⁴ The success of the Committee in making the case for more R&D funding is evident from the growth rate achieved through the late 1960s and early 1970s.

Concluding discussion

The previous chapter demonstrated that the MRC was the dominant structural interest in the health research state prior to 1960. By 1973, this was no longer the case. A second centre of gravity had emerged at the DHSS, with the full support of the Treasury. The MRC appears to have been tolerant of this development, despite its historic quest for dominance of medical research. At first sight, this history appears amenable to a neo-pluralist interpretation in which the health research state is elaborated to accommodate a wider range of interest groups as the business of the state becomes more complex. These interest groups would include health care professionals, in need of evidence relevant to clinical practice, and those responsible for the operational management of health services, including investment decisions in new buildings and equipment. Elaboration of the state would also serve the

1. MH 166/975, R&DC minutes 6 January 1969.

2. MH 166/976, *Background Note for the Secretary of State*.

3. MH 166/977, *Functional Review of Government R&D*, 4 January 1971.

4. MH 166/977, *R&D Estimates 1970 to 1976*

knowledge needs of disadvantaged sectors, such as community-based health and welfare services. Ultimately, the interests of the public, as the funders and users of the NHS, would be better served by this growth and differentiation of the health research state.

Against this, a more elitist interpretation can be offered. First, there is little evidence that the MRC's apparent tolerance reflected any greater openness to the possibility of a more pluralistic health research state. A paradigm existed, as codified in the concordat, in which the 'surveys and intelligence' work of the Department was distinct from the science pursued by the MRC. For as long as the activities of the Department appeared to be confined to its assigned sphere of interest there was no reason for the MRC to feel threatened. The Council clung to its belief that it should remain the dominant interest, whilst becoming complacent about its position because of its non-threatening experience of 'reform' in science and technology policy. The reforms that followed Trend, culminating in the 1965 Science and Technology Act, neither challenged the scientific self-governance of the research councils, nor provided any imperative for the MRC to become more attuned to NHS needs and priorities. Secure in its self-esteem after more than half a century of success measured by its own terms, the MRC was perceived after 1965 as more indifferent than the other research councils to the instrumentalist narratives of science policy.¹

Second, and returning to the theme of the professionalised state, the role of the medical administrative elite and its links to the medical scientific elite must be considered. Senior medical civil servants were drawn from the same professional, and often social, milieu as the leaders of the MRC and there was circulation of individuals between the two organisations. The most striking example is Richard Cohen, who worked for the MRC for fourteen years before moving to the Ministry of Health. Cohen was thus exceptionally well-equipped to manage the relationship with the MRC and to deal with boundary issues as these arose. Godber and Himsworth were on first-name terms and managed the institutional relationship at the most senior level. Influential researchers in MRC units, such as Cochrane, received grants from the Department and were networked in to both organisations. A harmonious relationship between the two was in their best interests. The maintenance of cordial

1. Rose and Rose, *Science and Society*, 113.

relations was helped by the personal links between senior members of the medical profession.¹ In Alford's terms, both medical administrators and medical researchers were 'professional monopolists' who, by co-operating, secured more public funding for medical research and ensured its effective delivery.

It would be misleading, however, to portray the situation as one in which the professional monopolists were unconstrained. Medical power was institutionalised and limited in the Department through the dual medical/administrative structure. Members of the medical administrative elite had to influence, rather than direct, administrative civil servants. It follows that one set of dynamics for medical research could co-exist with a distinct set for non-medical research. The existence of some co-ordinating mechanisms, the style of working and the unifying narrative of 'precise and practical relevance', were sufficient to integrate these different dynamics.

Any attempt at a pluralistic interpretation must also consider the absence of any public involvement in the development of the health research state. Neither the MRC or the Department engaged with the public directly during this period or, indeed, at any time before 1986. At no stage was there any suggestion by any of the participants that the public might be involved in shaping policy for R&D or contributing to R&D prioritisation. Members of the public may have had some input into the shaping of individual research projects, whether as patients or as members of organised interest groups, such as disease-based charities. Whether this occurred was a matter to which the Department remained indifferent.

The material in this chapter has also spoken to the role of civil society in the growth of the health research state. The emergence of the departmental programme coincided with an expansion of the voluntary sector in the late 1950s and 1960s. Many of the new charities founded in this period were mass membership charities specific to single issues. This phenomenon has been interpreted as a new means of public participation in politics, providing new channels for the mobilisation of

1. Cohen and Cochrane were close personal friends and Cochrane is candid about the importance of his personal friendships with Cohen, Max Wilson and Gordon McLachlan of the NPHT for his unit and career (see, for example, *One Man's Medicine*, 206, 215). Cohen's introduction to Cochrane's memoirs gives a startling insight into the shared social background of the two men when he relays his father's butler's opinion that Cochrane was the only one of his friends with the underclothes of a gentleman (Ibid. xi).

expertise.¹ The NPHT and King's Fund certainly mobilised expertise, but they were never mass participation charities. Both enjoyed generous endowments and had no need for mass membership. Their governance model was elitist in the traditional charity sense, with trustees drawn from the 'great and the good' and appointing their own successors. A more appropriate analytical framework may be that of Finlayson, who, borrowing a phrase, writes of the 'moving frontier' between the state and the voluntary sector. Finlayson acknowledges that the big picture in the twentieth century was that of the voluntary sector first compensating for the insufficiency of the state, and then withdrawing by degrees as the state developed. However, he argues that this bare narrative is too crude and instead emphasises fluid boundaries between public, private and informal sectors as a continuing phenomenon.² From this perspective, the history of the departmental programme in the 1960s might be viewed not so much as a progressive withdrawal from the field by the two charitable foundations, but more as a series of tactical shifts in modes of engagement. Both charities flexibly engaged with the evolving health research state in a way that would maximise returns from their resources. The returns sought were the development of knowledge and expertise of relevance to the health service. Such behaviour conforms to Prochaska's argument that the voluntary sector has constantly re-invented itself to find new ways of supplementing the state.³

Turning to organisation, what is striking is the extent to which the Department's bureaucracy was shaped by its policy of commissioning extra-mural research. The extra-mural preference was a strategy directed towards legitimacy and 'unassailable credentials', as well as practicality. The adoption of the research unit model can be seen in the same light. It was partly a practical strategy for growth; but it was also a way of signalling that the Department was a serious patron of research that did things in the proper way. This can be interpreted as an example of 'mimetic isomorphism', as defined by sociological institutionalists. The departmental programme presents all the attributes that institutional theorists have used to predict the occurrence of legitimacy-seeking organisational responses, including elevated professional influence. However, the Department's mimicry of the MRC was compromised by its

1. Hilton, *Politics of Expertise*.

2. Finlayson, *Moving Frontier*.

3. Prochaska, *Voluntary Impulse*.

need to adhere to its own instrumentalist rhetoric. Whereas the MRC could patronise ‘promising men’ solely on the judgements of scientific peers, the Department had to temper its judgements about the quality of potential unit directors as scientists with an assessment of the relevance of their interests and the need to assemble a balanced portfolio of units. Such judgements were made by medical and administrative civil servants, which left the designated units vulnerable to criticism on purely scientific grounds, as occurred under the third Chief Scientist.

Exchanges for health research can be considered in three axes: between the commissioning organisation and researchers; between researchers and the end-users of research; and between commissioners and end-users. The Department’s approach to research was explicitly and self-consciously ‘problem-driven’ in all three axes. For good practical reasons, officials let the researcher community exercise considerable initiative in identifying problems for investigation. This was an effective strategy for identifying problems that were amenable to research and for the identification of emerging talent. The informal team used deliberative process to refine proposals coming from researchers and to test their policy relevance. In this scheme, the problem was the ability and propensity of divisions to act as ‘customers’ for research. The solution of requiring ‘sponsors’ was imperfect in that the assignment of this role, especially retrospectively, was in no way guaranteed to ensure that the divisions really engaged with research outputs. This combination of pushy researchers and often-passive customers necessitated an elevated level of brokerage skills, discrimination and judgement in the informal team. These qualities, when combined with the availability of funds, led to the mode of working characterised as ‘enlightened patronage’.

This mode of working was agile and suitable in a period of early growth. However, it was not without its failings. The sponsor requirement shifted responsibility for research utilisation away from S&R and the R&D Committee. This contributed to a pattern, which emerged as early as 1968, of neglecting the challenge of research utilisation to focus on the lesser challenge of getting research produced. A few voices argued that the Department should develop some central function to ensure that research findings were taken forwards into the development of policy and planning. These arguments were disregarded in favour of the easier option of finding ‘sponsors’ of research elsewhere in the Department and assigning to them the

challenge of research utilisation. The even-more difficult question of how the NHS was to make use of the research procured for its ultimate benefit was barely raised.

The Department succeeded in creating a very effective dynamic for growth by the late 1960s and this sustained expansion in the HPSSR programme through to the mid-1970s. Progress was impressive, but the developing programme possessed some attributes that rendered it vulnerable to change in the external environment. The medical research stream was sustained by understandings within the medical elite and reliant upon key individuals, yet the overlap between the two organisations remained a potential source of disagreement. The designated research units superficially followed the MRC model, but the need to balance scientific and practical considerations meant that the units were vulnerable to critical review. The difficult problems of research utilisation were neglected and obfuscated by fictions of departmental sponsorship. These points of vulnerability became significant as the programme entered more turbulent times

7. Streams of Research

The position at the present time is that the Department initiates and supports research and development in the medical and social sciences for purposes directly relevant to the operations of the NHS and the Personal Social Services; in the investigation and evaluation of techniques, forms, and patterns of delivery of medical and social care; in new and improved medical equipment, supplies, and patients' appliances; in hospital and other health building and engineering; in relation to its traditional responsibilities for surveillance of the public health; and in aid of social security. It also supports a locally organized research scheme open to all parts of the service.¹

By 1973, the principal streams of research in the programme had been established, except for biomedical research which was later added through the Rothschild reforms. This chapter steps aside from chronological narrative to explore these principal streams in more detail. This will flesh out the preliminary characterisation of the programme obtained through quantitative analysis. Analysis of R&D votes alone (see chapter 4) can provide only limited visibility of the range of research funded within some of the larger votes, most notably that for HPSSR. A further purpose is to add weight to two arguments made in chapter six: that the nature of the research supported through the programme encouraged MRC tolerance; and that the programme was sufficiently diverse that its successful management required the integration of quite different dynamics.

To make diversity manageable, some scheme of classification is required. The approach to classification in those sources offering more detail than the Estimates changes over time. In *Portfolio 1*, published in 1971, a broad-brush approach was used, with only five categories: 'service developments' and operational, medical, social, and supplies and equipment R&D.² In contrast, *Portfolio 2*, published two years later, uses 23 categories based on a mix of service type and client group. This reflects the influence of novel approaches to planning (discussed further in chapter eight). In the annual 'yearbooks' of R&D published by the Department from 1973

1. Cohen, *Department's Role*, 13.

2. McLachlan, *Portfolio 1*, 227-228.

onwards, a hybrid approach is taken, with health services analysed by service type and personal social services by client group. Other streams, such as computer research, are shown as a single line. In the Cabinet Office Annual Reports on Government R&D, published from 1983 onwards, the client group approach is not used and high-level categories only are used for HPSSR. In this source, some of the 'other' streams are broken down into more detail. These different approaches are detailed in Appendix 2. There is thus no single scheme of classification in the sources that can be used for the whole period 1961 to 1986.

The approach adopted in this chapter is to take one of these schemes of classification and, following this scheme, to focus on the material streams of funding. The scheme adopted is that of *Portfolio 1*, with two amendments. First, the computer research stream, which was not included in *Portfolio 1*, has been added, in view of the sizable financial allocations involved. Second, discussion of service developments is subsumed into the discussion of medical research. This scheme has several advantages. Its coarse granularity reduces the number of streams to a manageable number that can be linked to discussion about researcher communities. It is also possible, at least in approximate terms, to reconcile this analysis back to funding by vote. If biomedical research is excluded, the five categories used in *Portfolio 1* plus computer research account for over 85 percent of the programme by value throughout the study period. Discussion of the main streams established by 1973 is followed by a brief discussion of new fields of activity between 1973 and 1986 and the argument is made that these are more the differentiation of existing streams than the emergence of new. Regardless of the vagaries of classification, marked continuity can be perceived in the main streams, once these were established.

Operational research

From 1967 onwards, operational research (OR) was defined by the Operational Research Society as follows.

Operational Research is the attack of modern science on complex problems arising in the direction and management of large systems of men, machines, materials and money in industry, business, government and defence. The distinctive approach is to develop a scientific model of a system, incorporating measurement of factors such as chance and risk, with which to predict and compare the outcome of alternative decisions,

strategies or control. The purpose is to help management determine its policy and actions scientifically.¹

Kirby provides a detailed account of the rise of OR as management technique and academic discipline.² A trajectory of growth from foundation to widespread influence and institutional presence was accomplished over little more than thirty years, ‘an impressive achievement for any human endeavour’. This was associated by processes of institutionalisation, most importantly the foundation of the Operational Research Club in 1947 with 50 members; later becoming the Operational Research Society with 3,000 members by 1975.³ OR also became established as an academic discipline in the early 1960s.

This growth trajectory is attributed to two main forces by Kirby. The first was the effect of wartime investment in OR followed by the demobilisation of practitioners back into their peacetime occupations, taking with them both expertise and enthusiastic conviction about the potential contribution of the discipline in the civil domain. The second driver was the post-war renaissance of scientific management, in which tradition OR was deeply rooted. This revival was stimulated by the experience of increased productivity, achieved through a more systematic approach to the analysis and design of work prompted by the exigencies of wartime, and the needs of reconstruction.⁴ Driven by these forces, OR spread from the armed services into large corporations and nationalised industries. Kirby demonstrates that ‘from the later 1950s onwards...the discipline began to be diffused into an increasing range of civil government activities with a notable acceleration after 1966’.⁵

The health service was part of this process, although discussed only in passing by Kirby who focuses on other sectors. Both Guillebaud and Plowden urged greater use of OR in the NHS, as did ACME.⁶ However, the Ministry was not always entirely

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1. This definition was adopted by the ORS in 1967 and printed on the frontispiece of every issue of the society’s journal, *Operational Research Quarterly*.
 2. Kirby, *Operational Research in War and Peace*.
 3. Geoff Royston, "One hundred years of Operational Research in Health - UK 1948-2048," *Journal of the Operational Research Society* 60(S1) (2009): S169-S179.
 4. Morgan Witzel, *A History of Management Thought* (London and New York: Routledge, 2013), chapter 9.
 5. Kirby, *Operational Research*, 335.
 6. MH 137/350, *Draft of second report to the Minister*.

sure what it meant by the term or about the boundaries between OR and other forms of systematic investigation into operations and management.

Discussion of operational research is bedevilled by the different ways in which people use the expression, and this is particularly so when research in health is the subject. At one extreme it is used to mean any research which is not basic, or laboratory research, and to encompass 'Applied Research' and 'Action Research', both of which suffer from the same verbal misuse—and at times abuse—as operational research.¹

A specific allocation in the Estimates for 'operational research by outside organisations' was introduced in 1963/4. Two years later this descriptor was changed to 'health and welfare services research by other organisations' because analysts in statistics, economics, and work study/O&M were also funded from this source and felt excluded by the description of the funding stream as being for operational research.² This awkwardness came about because the Ministry used 'operational research' indiscriminately as an umbrella term for a variety of disciplines and management techniques. These included, but were not limited to, OR as a specific discipline. Richard Cohen accurately describes this strand of activity as 'operations research (used...in its widest and most non-technical sense)'.³ The Department was receptive to any disciplinary approach that held promise of practical application and operations research was not limited to operational research.

A visitor to the UK from the USA, undertaking a study tour in 1964 to investigate the application of 'operations research' to the health service, was surprised by the backward state of affairs, given that the wartime development of OR had been led by the British.⁴ But, he added, 'the need for operational research on health problems is now widely recognised and plans are being made for a considerable amount of such research in future, largely with support from the Ministry of Health'. Commissioning of operations research began in HS3-D and was focused on hospital efficiency and financial control.

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1. J. B. Cornish and A. G. McDonald "Operational Research" in McLachlan (ed.) *Portfolio 1*: 161-167.
 2. Ibid. 161.
 3. Cohen, *The Department's Role*, 7.
 4. William J. Horvath, "British experience with operations research in the health services," *Journal of Chronic Diseases* 17, (1964): 779-788.

On what might be termed the operational front, active participation in research began with the formation of HS3 division, which had a general responsibility for the improvement of efficiency in hospitals. In the discharge of this commitment, the division was inevitably led to the promotion of research – largely projects of a fact-finding nature related to hospital needs, resources and practices, and later experimentation with new methods and techniques.¹

Once HS3-D began to commission ‘operational research’ from external providers, it did so in the name of the Advisory Committee for Management Efficiency.² ACME was far more enthusiastic about management services than about research. This was because its members, and particularly its Chairman, Sir Frank Ewart Smith, adhered to the principle that systematic investigation should be undertaken by the same people who would be responsible for implementation of any change requirements identified through such investigation. For this reason, ACME was more interested in developing O&M and work study competencies in the NHS workforce than in fostering external research capacity. However, ACME appears to have been quite content for HS3-D to commission ‘operational research’ to add to the armamentarium of efficiency. The importance of ACME began to decline from 1963 onwards as the Ministry built up its executive capacity, most significantly in HS3.³ As HS3-D grew its portfolio of commissioned studies, acquired experience, and built relationships with the research community, the imprimatur of ACME became less and less important. This happened to such an extent that the eventual dissolution of the Advisory Committee in 1966 had no discernible effect on the expanding programme of research commissioning.

The focus of the earliest externally commissioned ‘operational research’ was management practice, a choice that reflected a growing interest at the Department in how hospital administrators behaved. There is some evidence that this originated with the Minister for Health himself. Chester quotes Powell as having said the following in a speech at the King’s Fund in November 1962.

We have found, in the few years that we have existed as a National Health Service, we have been driven year by year to realise our ignorance of the inner secrets of hospital administration and the need for research

1. MH 166/973, Discussion Paper June 1967.

2. MH 166/249, *Research studies recommended by the Advisory Committee for Management Efficiency*. The Council became a Committee in 1963.

3. MH 137/350, enclosure to ACME(P)62.

into them — research in every form and at every level. It is evidence of that realisation that my Department is now allocating, year by year, sums of money specifically to research into different aspects of hospital administration.¹

Once the commissioning of operations and management research was established, it grew rapidly so that fresh visitors from the USA, touring the UK in 1968, came away with a different impression to that formed by Horvath.

The great majority of studies being supported by the Ministry are in the field of hospital operation. Major categories are management, staff, outpatient departments, medical records, catering, and architectural, engineering and supply and equipment studies.²

The first foray into management research came in 1963, when Professor T.E. (Teddy) Chester of the University of Manchester was invited to submit a proposal for two studies on the effectiveness of hospital management. A ‘vertical probe’ was required, examining the management response to hospital memoranda. A ‘horizontal probe’ was also required, involving a comparative analysis of senior management decision-making in different Hospital Management Committees.³ Chester, Professor of Social Administration at Manchester, was the sole university member of ACME. He had previously been Director of the Acton Society Trust and was a pioneer in NHS management education.⁴ Chester was not, in fact, the Ministry’s first choice and did not make a great success of the project. The Ministry had originally tried to appoint an OR practitioner for this work (Chester was a sociologist) but was thwarted by lack of supplier capacity. Various other university researchers were approached, but all were too busy with other commitments. Officials in HS3 felt that they lacked understanding of OR and were set upon engaging a ‘genuine operational research body’. They were, therefore, delighted to discover the Institute of Operational

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1. Quoted by T.E. Chester in his foreword to Beatrice Hunter, *The Administration of Hospital Wards* (Manchester: Manchester University Press, 1972), viii. See also similar remarks attributed to an unnamed Permanent Secretary (presumably France), speaking in 1965, in Institute of Operational Research, *First Four Years*, 7.
 2. Bierman, *Health Services Research in Great Britain*, 16.
 3. MH 166/249.
 4. Stephanie Snow, "'I've never found doctors to be a difficult bunch': Doctors, managers and NHS reorganisations in Manchester and Salford, 1948-2007," *Medical History* 57, no.1 (2013): 65-86.

Research in 1964. Several commissions were awarded to the Institute in subsequent years.¹

Portfolio 1 shows that by 1970/1, the Department was funding 37 operational (or operations) research projects with a combined grant award of £509,000 and 12 programmes with a combined value of £817,300.² Over only seven years, and from a standing start, the Department had succeeded in establishing a significant programme of operational, operations and management research.

Medical Research

The legitimacy of operations research for the Department was never open to question. This was a field for administrators, made salient by its linkage to the hospital building programme and orientation towards efficiency studies. In contrast, the commissioning of medical research had the potential to be more contentious. The Cohen Report had assigned the territory, including epidemiology and social medicine, to the MRC. Despite this, the Ministry began to develop its programme of service-orientated medical research from the early 1960s onwards. The reasoning behind this departure, and the orientation of the Ministry's medical research programme, were explained in a lunch time talk by Richard Cohen to the staff of the MRC in July 1967, the transcript of which survives.³

Cohen begins by dividing the Ministry's research programme into two categories. First, those activities which are so evidently the concern of an executive department that no further discussion was needed. 'These' he tells his audience 'are in many ways the backbone of our programme...are what everybody expects Ministry to be doing and what perhaps you have most in mind when you speak of operational research'. Into this category he places population-based studies of the need for medical care, bioengineering research, studies of management and organisation, including information systems, and experiments in laboratory automation.⁴ Cohen

1. Institute for Operational Research. *Institute for Operational Research. The First Four Years 1963-1967.*

2. Data from *Portfolio 1*.

3. FD 9/1283.

4. This is an example of the misuse of 'operational research' to describe the field of 'operations research'.

then goes on to focus on a second category, where ‘problems are arising in the border territory between service and research where the responsibilities of the Ministry and the Council meet and overlap but which the two bodies look at from opposite viewpoints, the preoccupation of the one being to the other a stepping stone or a valuable by-product’. He discusses two areas where these difficulties were being increasingly felt.

The first is screening of pre-symptomatic disease. Cohen gives the example of cytology for the detection of cancer of the cervix, a costly initiative introduced in 1963 without much evidence as to its efficacy or acceptability. He makes the point that once a practice is introduced it becomes ethically and politically very difficult to begin randomised controlled trials for the purposes of evaluation. He gives screening for glaucoma as another example, pointing out that the high level of false positives arising from the then-available technology would mean that ophthalmology services would be overwhelmed with extra demand in return for marginal health gain.

The second area is ‘trends in medical practice’. Here Cohen again refers to pressures to establish new services in the absence of evidence as to their likely efficacy and cost-effectiveness. He discusses renal dialysis, cardiac pacemaker implantation and hyperbaric oxygen therapy as examples. Cohen is concerned about the cost of such technologies and about the tendency for medical opinion to swing behind their adoption based on very limited evidence. He argues for central control over the evaluation and introduction of new technologies, rather than ‘free enterprise’. The system for funding ‘special medical developments’ provided a means of control, imposing evaluation whilst providing central financial support for such technologies. So, for example, he argues that, in the case of the national roll-out of renal dialysis, the Department’s ability to influence the patterns and quality of services from central funds contributed to better outcomes than could have been achieved through a rash of local initiatives.

Cohen’s exegesis of the policy dilemmas arising from screening and new medical developments supported his basic argument, which was designed to dispel any lingering doubts about the legitimacy of a departmental R&D programme.

The accelerating pace of medical progress, the exigencies created by a national health service, and the new public alertness to health matters consequent on the development of media of mass communication and education have combined to generate social pressures which have enormously increased the scope and urgency of an executive health department's dependence on research.

The exact balance between department and researcher initiative was as variable for medical research as it was for operations research. Cohen estimated in 1967 that between half and three quarters of all medical research projects had been initiated by the Ministry.¹ Generalisation is problematical because of the wide range of circumstances through which projects came about. The balance of influence between the Ministry, researchers and hospital authorities varied from project to project. External partners, such as the Nuffield Provincial Hospitals Trust, also played a significant role in the initiation and funding of some projects, as did local NHS bodies.

The evaluation of cytology screening for cervical cancer illustrates this variation and shows how the networks involved were often so well developed that it is impossible to unpick the balance of initiative. This was a topic that Cohen saw as emblematic of the rationale for a Departmental programme. Although he regretted the decision to launch a screening programme without a strong evidence-base, he believed that there was still a need to evaluate the programme and establish details such as the optimum interval between tests. Research was undertaken by the MRC Epidemiology Unit in South Wales with the support of the Welsh National School of Medicine, Cardiff City Council, and the Welsh Hospital Board. It was led by Archibald Cochrane, director of the MRC unit. Cohen described the project as having arisen 'spontaneously' from 'the Cardiff people'.² Cochrane gives a different view, saying that the Department took the lead through a 'preliminary sounding of senior figures in epidemiology and social medicine', including himself.³ The ready availability of a suitably experienced research group presumably made the choice of a supplier so obvious that the participants themselves were left with differing perceptions as to where the balance of initiative lay. Strong personal connections between the researcher and medical leadership at the Department would have further

1. FD 9/1283.

2. MH 166/240, Cohen to Godber, 6 February 1964.

3. Cochrane and Blythe, *One Man's Medicine*, 202-207.

added to the ease of decision-making, as would the support of other stakeholders such as the local NHS authorities.

Social Research

The Department used the term ‘social research’ to describe research by social scientists. Within the health and welfare field, most Department-sponsored social research was concerned with the services administered by local authorities and, to a much lesser extent, by the executive committees.

Community-based services offered social scientists relative ease of access to study populations, in contrast to hospitals, and was well-suited to the techniques favoured by social researchers, such as surveys. The field was largely neglected by medically-qualified researchers, with two significant exceptions. Psychiatrists led research into mental health care. Medical epidemiologists were interested in community services. The numbers of the latter were few and their methods more positivistic and quantitative than those of medical sociologists. The specialist nature of these medical interests left a great deal of territory open for colonisation by social scientists.¹

The Medical Officers of Health (MOsH) were the medical constituency with the most cause to be interested in research into local authority services. Their remit was not comprehensive because of the divide between health and welfare services. The statutory basis of the latter was the National Assistance Act of 1948 (for adult services); and the Children’s Act of 1948 (for children’s services), rather than the NHS Act of 1946 which set out the MOH’s sphere of influence.² In most local authorities, health and welfare services were overseen by separate committees and were under the separate leadership of the MOH and the Chief Welfare Officer. Only in a progressive minority of authorities were the two functions combined in a single committee and both senior offices held by a single individual.³ Consequently, medical involvement in welfare services was limited. But even within their sphere of interest, the MOsH as an occupational group were not much engaged with research. Although academic leaders in social medicine hoped that public health doctors would engage in epidemiological investigations, this remained the exception. In part, this

1. Jefferys, *Testimony of a partisan participant*.

2. Griffith, *Central Departments and Local Authorities*, chapters 6 and 7.

3. Margot Jefferys, *An Anatomy of Social Welfare Services* (London: Michael Joseph, 1965).

was to do with the ‘schism’ between social medicine and public health practitioners. At a more prosaic level, it reflected the extent to which the latter were consumed by the administrative aspects of their role, and isolated within local authority structures.¹ The Department tried to encourage more public health doctors, together with general practitioners, to participate in research through the LORS. Cohen says that funds were first allotted for research in each of ‘the GP and local health and welfare services’ in 1964/5. In the Estimates, a separate heading for ‘other clinical research’ (as opposed to hospital clinical research) first appears in this year.² This budget grew to about 15 percent of the total clinical research budget by 1970/1, after which it is no longer separately itemised.

The Ministry sent a letter to all RHBs in 1966, suggesting that they should encourage research into community-based services and advising them to co-opt a general practitioner or MOH to their research committees. Nevertheless, most Boards continued to spend the great majority of funds allocated under the scheme to the support of hospital projects.³ Consequently, only six percent of LORS-funded projects were led by community-based clinicians in 1972.⁴ This low participation rate was not helped by a growing distance between academic social medicine and the practice of community medicine.⁵ The out-of-hospital services field was left open for social researchers, with the exception of niches of medical interest. Department sponsorship of social scientists was particularly important, given the low take up by community medicine of research opportunities. The peripheral role of the MOH in research was one aspect of a bigger picture of missed opportunities and declining influence.⁶

The Department was also interested in social work as a field for investigation. The Local Authority Social Services Act of 1970 created local authority social services departments and, in April 1971, these replaced welfare committees and assumed the

1. Jane Lewis, *What Price Community Medicine?* (Brighton, Wheatsheaf Books, 1986), 92.

2. Class VI-14 A6(3)

3. MH 166/437, Unpublished report of the DHSS/MRC joint working party on the Decentralised Clinical Research Scheme in England and Wales under the Chairmanship of Sir Douglas Black para.7

4. *Ibid.* para. 17

5. Porter, *Decline of Social Medicine.*

6. Lewis, *What Price Community Medicine?*

personal services responsibilities of local authority health committees.¹ The Seebohm Committee, which had recommended the creation of integrated social services departments, devoted a whole section of its report to the importance of research.² Against this background, the Department felt the need for more knowledge about the organisation and outcomes of social work. This was a topic of no more than peripheral interest to the medical profession and, again, the field was left open for social researchers.

More unusually, social researchers sometimes moved into territory that might otherwise have been occupied by medically-qualified researchers undertaking 'medical care research'. This included research into hospital-based care that would have been categorised, under the conventions adopted in *Portfolio 1*, as medical if led by a medical doctor. An example is Margaret Stacey's study on the welfare of children in hospital. Stacey went on to become Professor of Sociology at the University of Warwick and was a leading figure in the British Sociological Association's medical sociology group.³ She approached the Ministry speculatively in 1963, proposing a study to be undertaken in collaboration with the Glantawe Hospital Management Committee. Her proposal had the backing of the Welsh Board of Health. The care of children in hospital was a live issue following the 'Platt Report' and the formation of the pressure group Mother Care for Children in Hospital. Stacey was unknown to the Ministry and so Cohen sought the opinion of paediatricians through his medical networks.⁴ The project's findings caused considerable controversy because they challenged the view of the medical profession that parental access to children in hospital should be limited.⁵ The study has been

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1. Phoebe Hall, *Reforming the Welfare* (London: Heinemann, 1976). Eric Sainsbury, *The Personal Social Services* (London: Pitman, 1977), part 2, chapter 6. Joan Cooper, *The Creation of the British Personal Social Services 1962-1974* (London: Heinemann, 1983). See also Webster, *Health Services vol. 2*, 300-310 for Seebohm to the 1970 Act.
 2. Cmnd. 3703 *Report of The Committee on Local Authority and Allied Personal Social Services* (London: HMSO, 1968), para. 473.
 3. Obituary "Professor Margaret Stacey", *The Times*, February 25 2004.
 4. MH 166/238.
 5. Interview, Gillian Ford.

described as pivotal in a journey from parental exclusion to toleration and eventual active participation in the care of the hospitalised child.¹

The Department was aware that social research was a developing field. Processes of institutionalisation for social sciences lagged far behind those for medicine.² After the establishment of the Social Science Research Council (SSRC) in 1965, the Ministry anticipated an increase in social research and became concerned about its competence to commission such work. Its response was to set up an in-house unit, the Social Science Research Unit (SSRU). This was the only new in-house unit set up in the 1960s. Although established with only four staff, initial expectations were high. It was envisaged that SSRU would be the primary point of liaison with the SSRC; give advice on research policy; provide expertise on methods; and undertake its own programme of research.³ The unit turned out to be under-powered and its ineffectiveness contributed to a preference for external suppliers.

Research into social security provided another strand of social research after the DHSS was created in 1968. The Ministry of Social Security (MSS) had its own research and statistics branch and only a few weeks prior to merger the outgoing Minister, Judith Hart, had split this into two separate divisions, strengthening each with additional staff and appointing a research advisory panel.⁴ The MSS commissioned research into the financial circumstances of the disabled, the employment prospects of widows under fifty, fatherless families, the long-term unemployed, and take-up of benefits.⁵ When the two ministries combined, it became apparent that there was a significant overlap in research programmes. Ill-health and disability were significant causes of poverty and policies for income maintenance sat alongside policies for personal social services in maintaining welfare.

The creation of the merged Department should give a greater impetus to the joint study of the needs for income maintenance and the needs, for health and welfare services - to what extent are these needs correlated and how do they interact? It should be possible to use research resources

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1. Ruth Davies, "Marking the 50th anniversary of the Platt Report: from exclusion, to toleration and parental participation in the care of the hospitalized child," *Journal of Child Health Care* 14, no.1 (2010): 6-23.
 2. Nicol, *The Social Sciences Arrive*.
 3. MH 166/255, *Social Science Research Unit*.
 4. BN 82/12, Press Release 25 September 1968.
 5. BN 82/12, *Report on research policy*, 13th March 1968.

more effectively, and it should be easier to plan the work in a merged Statistics and Research Division which should also facilitate more effective liaison on the Social Security side with universities and other outside bodies including the Social Science Research Council.¹

The research administration of the former MSS was bolted onto S&R as a separate branch and remained in a separate building. Discussion on organisational and programmatic integration continued throughout 1969 and into 1970. The social security research branch appears to have ploughed its own furrow throughout the pre-Rothschild period and its budgetary allocations remained modest (see chart 4.6).

Supplies and equipment research

The Department had a dual responsibility for supplies and equipment research. It was the ‘production authority’ for the medical devices industry, which meant that it was responsible for encouraging the development of British products with export potential. It was also concerned to evaluate supplies and equipment prior to adoption by the NHS. Where the Department saw promise, its production authority role might mean positive intervention to assist manufacturers in developing a product. In its evaluation role, it might act to block the introduction of untried and insufficiently developed equipment.² An interventionist policy was viewed as necessary because of the particular conditions pertaining to the medical equipment industry. This industry had no mass consumer market, development costs could be very high and the main customer in the UK was the parsimonious NHS. Before about 1980, no British company had made a major commitment to medical devices and the sector did not contain firms with the capacity for major investment in R&D.³ Medical device development involved a range of partners. In addition to the Department these might include industry, universities, government laboratories, NHS authorities, hospital endowment funds and independent charities.

As with operational, medical and social research, projects could be initiated through a variety of channels, including the medical staff of the Department, hospital

1. BN 82/12, *Memo Department of Health and Social Security. Research of Common Interest*. January 1969.

2. FD 23/184, *Medical Supplies Research and Development Steering Committee*.

3. Charles Susskind, “The invention of computed tomography,” *History of Technology*, eds. A. Rupert Hall and Norman Smith (London: Mansell Publishing, 1981), 39-80.

authorities, industry, individual inventors and the Supply Division itself. Decisions about which projects to pursue were made by the Medical Supplies Research and Development Steering Committee. This continued to exist after the central R&D Committee was set up in 1967 and the participation of the Supply Division in the latter was more by way of information sharing than seeking direction. The dual administrative/medical structure also operated in supplies research, with the progress of each project being overseen by a dyad of project officer and medical lead. The Supply Division was capable of making bold investment decisions, as exemplified by its support for computed tomography where its intervention came at critical points in the development of this new technology.¹

The MRC was also interested in the development of medical equipment, but with a primary interest in research purposes. This work was pursued through the biomedical engineering division of the National Institute for Medical Research. In practice, the MRC's motivation and that of the Department often converged in time. New technologies in medicine are often the result of the transfer of technology from other sectors. Development of medical devices that are authorised for routine clinical use frequently strengthens the capacity to undertake 'upstream' research, rather than originating in such research.² A classic example of this is Magnetic Resonance Imaging (MRI) scanning, the origins of which lay in basic research on the structure of the atom. MRI was supported by the MRC long before it was clear that the technology could be integrated into routine clinical practice, because of its potential as an imaging tool for research. Once industry and clinicians had grasped its potential, then the path was set towards the development of MRI for routine clinical use. The adoption of MRI in routine clinical use opened-up many new possibilities for research through increased access to patients.³ Contrasting CT and MRI, the motivation and engagement point of the Department and the MRC was quite different in each case, but the end-point of a novel technology adopted in routine clinical use was the same.

1. Susskind, *The invention of computed tomography*.

2. Annetine Gelijns and Nathan Rosenberg, "The dynamics of technological change in medicine," *Health Affairs* 13, no.3 (1994): 28-46.

3. Blume, *Insight and Industry*, 190-224.

The Supply Division ran the only in-house research unit existing prior to 1966, the Biomechanical Research and Development Unit (BRADU). The origins of the unit lay in the First World War, when Queen Mary's Hospital, Roehampton became a specialist centre for fitting artificial limbs. This service was later formalised as the Artificial Limb Unit, which undertook R&D as well as supporting a specialist clinical service at Queen Mary's.¹ The re-designation of the unit as BRADU in 1967 coincided with its move to purpose-designed new buildings on the Roehampton. BRADU's focus was on research into the management of amputees and congenital limb disorders; and the development of artificial limbs (including powered limbs) and prosthetics. It served as the R&D hub for a national network of limb and appliance centres.²

Computer research

Computer research before 1973 was pursued through the Experimental Computer Programme (ECP), which was the first national computing initiative in the English NHS.³ The scale of resources committed to ECP was very substantial, rising to a peak of £5.5 million, or just over 40% of the total R&D budget in 1972/3. This funding was top-sliced from the hospital revenue vote. A computing policy and development branch (CPDB) was established in 1967 and attached to S&R. Despite the size of the financial commitment and the location of CPDB, the ECP appears to have been somewhat detached from the rest of the R&D programme. It was discussed only in passing by the R&D committee and usually omitted from its reports, including financial projections. Where included, it is typically covered in a separate appendix. CPBD, together with O&M, was moved from S&R into a new Automatic Data Processing and O&M division in 1970. A year later, these activities became part of a bigger Management Services division, headed by Under-Secretary Kenneth Stowe.⁴ Stowe took a firm management grip on ECP, which was causing

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1. Helen Alper, *A History of Queen Mary's University Hospital Roehampton* (London: Twickenham & Roehampton Healthcare NHS Trust, 1996).
 2. D. S. McKenzie, "Biomechanical Research and Development Unit (BRADU)," in *Portfolio for Health. The Role and Programme of the DHSS in Health Services Research* ed. Gordon McLachlan. London: Oxford University Press, 1971: 197-203.
 3. Davies, *Experimental Computer Programme*.
 4. MH166/256, *Establishment Notice 136/66* 11 July 1966; British Civil Service Calendar and Imperial List, 1967 to 1972.

considerable difficulties in relations with the Treasury. Prior to his involvement, management appears to have been left largely in the hands of CPDB, who the Treasury regarded as unrealistic computer enthusiasts. Governance arrangements were also less than convincing, with no external scrutiny at all prior to the establishment of the Advisory Committee on Medical Computing (ACMC) in 1969.¹ All of this suggests that the R&D programme represented little more than a flag of convenience for ECP, providing access to funding through the mechanism of hospital revenue vote top-slicing. This impression is reinforced by the approach taken towards evaluation of ECP. The Department's original assumption was that each site would be able to assess the impact of computerisation by before-and-after comparison. However, this proved unrealistic because long elapsed timescales for projects meant that so many factors changed that it was impossible to isolate the impact of computerisation. The task of developing methodologies for evaluation proved more difficult than anticipated and project heterogeneity limited scope for transferability of learning. The Department was slow to react to these problems. Guidance on evaluation was not issued until 1972, by which time responsibility for ECP had moved out of S&R and into the Management Services division. Another four years passed before an evaluation working group was set up to provide consistent methods and co-ordinate findings from the various sites.²

From this brief overview, it will be apparent that the dynamics of growth in the computer strand of research were completely different from those in other streams. Essentially, very large grants were made to a small number of NHS sites for the purchase, development and evaluation of computers on the basis of a ministerial decision. There was no equivalent to the brokering between researchers and internal customers undertaken by the informal team. There was no external research community – research was undertaken by local teams of NHS and medical school staff, with some practical support from CPRB. Prior to 1972, these local teams were

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1. MH 166/648, *The Advisory Committee on the Application of Computing Science to Medicine and the National Health Service* (customarily shortened to 'Advisory Committee on Medical Computing').
 2. B. W. H. Molteno, "A new approach to evaluation in the NHS Experimental Computer Programme, in *Medical Informatics Europe 78, Lecture Notes on Medical Informatics* eds. D. A. B. Lindberg and P. L. Reichertz (1978): 691-700.

left to develop their own approach to evaluation. None of this was a winning formula for implementation, let alone evaluation, and the programme ran into difficulties of slippage and cost escalation that prompted a review as early as 1971. Given these observations, it could be argued that ECP was never fully part of the departmental R&D programme, being more of a separate endeavour operating under a flag of convenience. This said, it is difficult to ignore the programme given its enormous budget, which was counted by Treasury as being part of the Department's R&D budget. Computers were clearly recognised as a key field for research and development and this stream re-emerged in the 1980s, once the Department had disentangled itself from ECP. At a basic level of organisational politics, ECP cannot have done much for the reputation of S&R and the programme provided a source of friction as the Department sought to implement Rothschild.

Later developments

These five principal streams, which were persistent through to 1986 and beyond, saw some evolution during the 1970s and 1980s. Clinical research ceased to become the preserve of doctors as other professions, such as nursing and speech therapy, became engaged in research. The Department encouraged this trend towards multi-professional engagement. Nursing, for example, was allocated a dedicated RLG, which developed a stream of activity. The primary centres for this were the Nursing Education Research Unit at Chelsea College, London and the Department of Nursing at the University of Manchester. However, the scale of this 'other professional' research remained very limited compared to medical research, as is evident from the R&D yearbooks.¹

Economists successfully cultivated the patronage of the Department during the 1970s, assisted by the growth of the EAO which undertook a considerable amount of research in-house but also drew upon external resources as required. The principal extra-mural centre for economic research was the University of York. Health economists exercised a disproportionate influence over the programme in the 1970s, with meetings of the Chief Scientists' Research Committee often held in York. The

1. For example: Department of Health and Social Security. *Research and Development Report and Handbook* (London: HMSO, 1979). This includes a discussion of nursing research at pages 5-6 and appendix 1h.

discipline has not been reticent about its own contribution to health and social security research.¹ Nevertheless, the R&D yearbooks make it clear that economics was seen more as a methodological resource for studies in any category than as a separate stream.²

In computer research, activity was curtailed from the mid-1970s onwards. In the aftermath of ECP, the Department passed the baton to the Regional Health Authorities, invoking the 1974 reorganisation mantra of ‘maximum devolution’ to justify this stepping back.³ In 1985, the Department described its role as providing financial support to those ‘bodies, mostly NHS authorities, who assume responsibility for projects for research into, and development of... computers in the management and provision of health services’.⁴

Concluding discussion

The diversity of the programme is evident from this review of its principal streams. The tendency in the literature to portray it as a proto-HSR programme understates the scale and importance of other streams of activity. Customer requirements, researcher communities, and the department’s networks were all quite dissimilar between the various streams. Dissimilarity extended to research utilisation, with fundamental differences in the path from knowledge to implementation between, say, a social research study and the experimental development of a medical device. The Department faced the challenge of constructing organisational arrangements that could accommodate such heterogeneity in a single programme. The combination of the informal team and the R&DC managed this effectively for medical, social, and operational research. Supplies research largely ploughed its own furrow, but was co-ordinated with health and welfare activities through the R&DC. Computer research was only loosely integrated.

1 Hurst, Jeremy. "The impact of health economics on health policy in England, and the impact of health policy on health economics, 1992-1997," *Health Economics* 7, (1998): S47-S62. Alan Williams, "Primeval health economics in Britain: a personal retrospect of the pre-HESG period," *Health Economics* 7, 1998: S3-S8. Smee, *Speaking Truth to Power*.

2. DHSS, *Research and Development Report and Handbook*, 1979. 15-16.

3. Davies, *Experimental Computer Programme*.

4. Cabinet Office Annual Report on Government Funded R&D, 1985, 117.

Closer examination of the composition of the programme and the character of the principal streams further explains why the MRC did not see the emerging departmental programme as any threat to its structural dominance. The only element that might have been perceived as such was medical research. Yet in 1972/3, for example, medical research accounted for less than 20% of the total budget, with most funding committed to LORS and PHLS research. Less than 5% was allocated for centrally-commissioned medical research.¹ Resources were directed towards topics that held little interest for the MRC, such as evaluation of screening programmes and new clinical services. The HPSSR programme was firmly directed towards the practical needs of the NHS and understood by the MRC to be operating within the boundaries agreed in the concordats and confirmed by the Cohen Report. This perception, together with the cohesiveness of the medical elite, sustained harmony until the publication of the Green Paper '*A Framework for Government Research and Development*' disturbed the status quo in 1971.

1. MH 166/974, *The Balance of the R&D Programme*, (forecast figures for 1972/3 in appendix).

8. Rothschild Partly Implemented: 1971 to 1973

I think it has been unfortunate that, with no increase in research management staffing, the DHSS has to some extent been distracted by biomedical responsibilities from the area of research in which it had played an entrepreneurial role almost to the point of monopoly...The deviation of personal commitment into complicated arrangements for commissioning biomedical research can scarcely have failed to diminish the manpower resources available within the DHSS for fostering HPSS research.¹

The work of Maurice Kogan and his colleagues provides the obvious starting place for examination of the 'Rothschild reforms' at the DHSS. First-hand access to the Department over seven years confers considerable authority on the writings of this research team. Yet for all its authority, their body of work suffers from two limitations. First, it pays little attention to events before 1974, when the team began its engagement. Second, it treats the implementation of Rothschild as if it happened in isolation from other organisational change at the DHSS.

Kogan and Henkel's treatment of the historical backdrop to the situation they first encountered in 1974 is brief to the point of being cursory. Such discussion as there is deals mostly with the general growth of rationality and planning in government, rather than the specific history of research management.² The pre-Rothschild era is characterised as an 'individualist, perhaps charismatic, phase' in which 'scientists were discovered and units promoted by individual members of the Department, whose images are now more heroic than bureaucratic'.³ Organisational structures for R&D in the 'golden age' were certainly simpler than the elaborate architecture implemented in response to Rothschild. However, they were not so rudimentary as to support any suggestion that the pre-Rothschild programme was pre-bureaucratic. Nor was the Department backwards in adopting new thinking, as shown by its early adoption of the customer-contractor principle. This neglect of the historical backdrop means that that the transition from one set of structures and processes to another in

1. Douglas Black, *Functions of the Chief Scientist*.

2. Kogan and Henkel, *Government and Research*, 26-31.

3. *Ibid.* 99.

1973 is not explored. Similarly, there is no discussion of how the relationship between the Department and the MRC had developed prior to Rothschild, nor of how this stood immediately prior to Rothschild.

Kogan and Henkel also treat the implementation of Rothschild as if this occurred in isolation. In fact, R&D reform coincided with a period of exceptional organisational change at the DHSS. The prospect of NHS reorganisation prompted the Department to embark upon its own restructuring, implemented in two phases between 1972 and 1974. This coincided with the requirement to introduce the Rothschild reforms in R&D management. Although these two strands of reform had separate origins, both were manifestations of the desire to render government more managerial, as espoused by the Fulton Committee in 1968 and pursued by the Heath government after 1970.¹ Novel approaches to ‘strategic planning’, then highly fashionable in the private sector, were adapted as a central plank of managerialism in government. Fulton endorsed planning and linked it to research through the committee’s recommendation that all government departments should establish planning and research units.² Against this background, the reform of R&D management was caught up in the wider reorganisation of the DHSS. Kogan and Henkel touch upon this connection in a short and somewhat opaque passage. They do not develop the discussion enough to draw any explicit conclusions about the consequences for the R&D organisation.³

As a response to these reflections on the Kogan corpus and its limitations, this chapter focuses on the years 1971 to 1973. It will be argued that most of the difficulties experienced in research management from 1973 onwards can be traced back to decisions made by the Department during this short but pivotal period. What then followed was the protracted playing-out of a difficult hand. Events between 1971 and 1973 are examined in two parts. The first considers the ‘Rothschild reforms’ in national science policy and the impact of these on the relationship between the Department and the MRC. It shows how the medical elite managed affairs to limit the potential de-stabilisation introduced by Rothschild. It argues that,

1. Garrett, *Management of Government*.

2. Cmnd. 3638, paras. 173-177.

3. Kogan and Henkel, *Government and Research*, 40-45.

in so doing, science policy reform was effectively neutered for biomedical research. The second part turns to the administrative side and places the implementation of Rothschild in the wider context of DHSS reorganisation. It shows how, whether by intent or accidentally, the Department managed to implement deeply flawed administrative structures for research management. It argues that it was this combination of medical subversion and administrative misjudgement that lay at the root of the difficulties experienced in operationalising Rothschild.

A Framework for Government Research and Development

The Green Paper, *A Framework for Government Research and Development*, was published in November 1971.¹ This document bound together two reports that were entirely dissimilar in philosophy, style and intent. The first, on the organisation and management of government R&D, had been commissioned by Prime Minister Heath from the Central Policy Review Staff (CPRS). Lord Victor Rothschild, Director of CPRS, was credited as the author. A second report on the future of the research council system, prepared by a working group of the Council for Scientific Policy (CSP) under the chairmanship of Sir Frederick Dainton, had quite separate origins and had been submitted to the government some six months earlier. The juxtaposition of these two reports was so remarkable that *The Sunday Times* described it as ‘a riotous contrast – as though the Pope and the Rev. Ian Paisley’s views on the right way to organise a Christian church were placed side by side in a single volume’.² The ‘Dainton report’ was cautious in its recommendations for improved co-ordination between the research councils and couched in temperate language. The ‘Rothschild report’, which was brusque and iconoclastic in its tone, recommended the introduction of a ‘customer-contractor principle’ for all applied research.³ Government endorsement of this principle, in a brief introduction to the Green Paper, set the cat among the pigeons. The ensuing controversy has been

1. Cmnd. 4814.

2. Nicholas Faith, *Sunday Times Business News* 28 November 1971 – quoted in Duffy.

3. The tone of the Green Paper is slightly less inflammatory than that of the unpublished CPRS report. For example, a section in the latter is headed ‘The So-Called Haldane Principle’. In the Green paper this becomes the more neutral ‘The Haldane Principle’. CAB 184/209.

documented elsewhere.¹ At the end of this controversy, a White Paper bearing the same title (less the indefinite article) was published in July 1972. This substantially confirmed commitment to the reforms proposed by Rothschild in the Green Paper, albeit with some softening of language.² The archival material now available would allow a comprehensive re-visiting of this whole episode, but discussion here is confined to matters of direct relevance.

Rothschild drew a distinction between basic and applied research. In his report, the latter is described as directed towards a product, process or ‘method of operation’. Basic research is directed towards adding to the stock of knowledge without any specific outcome in mind. Rothschild accepts that there is some truth in the argument that basic research can lead to practical applications in unplanned and unanticipated ways. However, he dismisses such happenstance as a proper basis for policy, saying that ‘the country’s needs are not so trivial as to be left to the mercies of a form of scientific roulette’. Instead, he maintains, all government-funded applied research should be commissioned using the customer-contractor principle. In his most-quoted dictum, ‘the customer says what he wants; the contractor does it (if he can); and the customer pays’.³ In the health domain, the customer was identified as the DHSS and the Scottish Home and Health Department (SHHD). Rothschild proposed that a quarter of the MRC’s budget, some £5.6 million, should be transferred to the health departments in 1972/3 for the commissioning of applied health research. As a transitional mechanism, the health departments would be expected to use most of these funds to commission work from the MRC. This arrangement would last for only three years, after which the health departments would be free to commission work from any qualified provider.⁴

1 E. R. Dobbs, "The organisation and control of scientific research by the United Kingdom Government," *Higher Education* 1, no. 3 (1972): 345-355. Roger Williams, "Some political aspects of the Rothschild Affair," *Science Studies* 3 (1973): 31-46. Norman J. Vig "Policies for science and technology in Great Britain: post-war development and reassessment," in *Science Policies of Industrial Nations* eds. T. Dixon Long and Christopher Wright (New York, Praeger 1975), 59-109. Duffy, *The Rothschild experiment*. Taylor and Teeling-Smith, *Health Services*. Wilkie, *British Science and Politics since 1945*, 78-103.

2 Cmnd. 5046 *Framework for Government Research and Development*. London: HMSO, 1972.

3 Cmnd. 4814, para 6.

4. Duffy, *The Rothschild Experiment*, 70.

To administer the customer-contractor scheme, Rothschild proposed two roles in each government department affected. The first was the Chief Scientist (CS), who would lead the customer function. Rothschild was adamant that this should be more than a purely advisory role, rejecting the title ‘Chief Scientific Adviser’ for this reason. He envisaged that the CS would have an organisation, with representation in the different divisions of his or her government department.¹ On the supply side, there would be a ‘controller R&D’ leading the contractor organisation. The controller should not report to the CS, because ‘they are engaged in quite different activities’. Rothschild envisaged sizeable in-house research establishments in government departments, which it was the controller’s job to co-ordinate. Where such resources were unavailable or unqualified, then the controller would lead the commissioning of research from external providers.² The controller would also control funds raised through the ‘general research surcharge’, a ten percent levy on all research contracts intended to support provider-initiated investigations.

The government ran a formal consultation on the Green Paper, lasting until the end of February 1972. It received 417 letters, of which 26 percent were supportive of Rothschild and 58 percent opposed.³ The scientific community, with medical scientists to the fore, orchestrated a campaign of opposition through the correspondence columns of *The Times*. The MRC also stated its case before the House of Commons Select Committee on Science and Technology.⁴ Despite this vocal opposition, the government was determined to press on with implementation of the customer-contractor principle. The background to the CPRS report lay in an earlier proposal by the newly-elected Heath government that the Ministry of Agriculture, Fisheries and Food (MAFF) should absorb the Agricultural Research Council (ARC). This proposal had been strongly opposed by the CSP. Prior to this, the transfer of all research councils into government departments had been contemplated by the Cabinet Office, but rejected as too politically difficult.⁵ These

1. Cmnd. 4814, para. 10.

2. Ibid. para. 13.

3. CAB 164/1118, *Analysis of letters to Chief Scientific Adviser on Cmnd. 4814*.

4. House of Commons Select Committee on Science and Technology (1972), *Research and Development. First Report Session 1971-72*. (London: HMSO).

5. CAB 168/236, *Future of the Research Councils*, CAB 164/688, Dobbs, *The organisation and control of scientific research*.

moves reflected a growing conviction that the research councils had become too self-absorbed and were neglecting societal needs.¹ For all its apparent radicalism, Rothschild was a fall-back strategy for reining in the research councils and the government was not inclined towards any further compromise. Publication of the White Paper was delayed not by any government wavering over policy, but instead by haggling over money as the research councils fought a rear-guard action. This matter required resolution at cabinet level, but here too there was disputation, with battle lines drawn between ministers for the administrative departments and the Secretary of State for Education and Science, Margaret Thatcher. Thatcher sought to minimise transfer sums, pleading a threat to the viability of the research councils. The Chief Scientific Adviser to the government, Sir Alan Cottrell, brokered an acceptable compromise, but this took some months.²

When the White Paper was finally published in July 1972 it included a commitment to the transfer of funds commencing in the budget year 1973/4. The sum involved for the DHSS was, in the event, little changed from that proposed in the Green Paper (in cash terms) at £5.5 million, or just under a quarter of the MRC annual budget.³ The White Paper stated that no transfers would be made until the customer departments had established their central scientific staff.⁴ This set departments an aggressive timetable of less than eight months for implementation of Rothschild-compliant arrangements. The customer-contractor principle remained central, but was now presented as ‘partnership working’.

An essential feature of this approach is provision for continuing discussion and partnership between customers and contractors and with other interested sections of the community. These are to be extended and developed.⁵

The White Paper accepted that many of the ideas for research would originate with researchers. The role of scientists in government would be increased. In the case of the DHSS, it was stated that the Chief Scientist ‘would be helped by a small team of

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1. Duffy, *Rothschild Experiment*, 69; Rose and Rose, *Science and Society*, 114-115.
 2. CAB 164/1118, *Brief from Sir Alan Cottrell to PM for cabinet meeting 18 May 1972 (draft)*.
 3. At 1971/2 price base – later uplifted for inflation.
 4. Cmnd. 5046, para. 51.
 5. *Ibid.* para. 7

scientists who will work part-time in the Department'. They would 'act as a link between the Department and the scientific community, so as to develop discussions and partnership between the two'.¹ This was, in effect, a mandate for deliberative working, representing a significant departure from Rothschild's preference for market-like exchanges. This softening reflected two influences. First, the promise of greater contractor involvement in shaping the research agenda. This was offered as a sop to the research community at a time when the government was extremely anxious about the possible reactions of scientists to the White Paper, fearing mass resignations from the research councils.² Second, it can be seen as a response to recommendations made in the Fulton Committee on the greater involvement of specialists in policy development.³ The Prime Minister, Edward Heath (1916-2005), was especially keen to see progress in this last respect and saw the White Paper as an opportunity to clarify how this would be achieved at the DHSS.⁴

The *Framework* presented several enticing opportunities for the DHSS. It held out the prospect that more money would be directed towards service-orientated medical research; that R&D leadership and management would be strengthened; that research would become more central to the working of the Department; and that a more integrated programme would develop. It also presented a threat. The reforms risked de-stabilising the relationship with the MRC, undoing the good relations that had been so carefully cultivated by Godber and Cohen. This was, moreover, a risk heightened by the approaching retirement of these two individuals. Realising the opportunities presented by the White Paper as a whole was a matter for both the administrative and professional sides of the parallel structure. But negotiation of arrangements for the commissioning of biomedical research and management of the Department's relationship with the MRC were treated as primarily a matter for medical officials. This latter aspect of implementation was the least affected by the reorganisation of the DHSS, and is considered first, before attempting to understand the more complex events on the administrative side.

1. Cmnd. 5046, para. 21.

2. CAB 164/1121, *Briefing for Publication of White Paper*.

3. Cmnd. 3638, *The Civil Service. Volume 1. Report of the Committee 1966-68* (London: HMSO, 1968), 15-23.

4. CAB 164/1118, PM's personal minute, 18 May 1972

The MRC and biomedical research

The proposed transfer of MRC funds presented an unprecedented opportunity for additional resources to be secured for service-orientated medical research. When consulted by the CPRS prior to the Green Paper's finalisation, Richard Cohen proposed that half of the MRC's total spend on public health, clinical medicine and social medicine combined should be transferred to the health departments. This amounted to £6 million, compared to the £5.6 million proposed in the Green Paper. Cohen identified several specific areas in which the MRC's programme was inadequate in response to the scale of the issues involved, including immunisation, nutrition, environmental toxicology, renal dialysis and epidemiology. He argued that 'the exploitation by applied research of existing fundamental knowledge would pay the quickest dividends at the present time in improved treatment'. This 'needed shift of perspective' would be facilitated by increased DHSS influence over the MRC's programmes through the power of the purse.¹

Despite the strength of these privately-expressed views, the DHSS was notably less assertive than other departments in seeking to maximise the funds transferred from the research councils.² At one stage in the dispute over transfer sums, the Cabinet Office explored the possibility of cutting the transfer total for all the research councils to £10 million, compared to Rothschild's proposed £29 million. This would have meant reducing the amount to be transferred to DHSS from 25 to 10 percent of the total MRC budget. The DHSS did not contest this proposed reduction, whereas other departments argued forcefully - and successfully - against it.³ The DHSS also initially proposed a slow pace for the transfer of funds, beginning in 1975. This was rejected by the Chief Scientific Adviser as being too protracted a timetable.⁴ Ironically, given how prominent the MRC was in its opposition to the Green Paper, the DHSS/MRC dynamic appears to have been the least of the Cabinet Office's worries. One reason for this was that the MRC had the largest budget of the three

1. CAB 168/236, Memo and file note of talk with Dr Cohen, Atkinson to Rothschild, 16 July 1971.

2. The Ministry of Agriculture Fisheries and Food (MAFF); the Department of the Environment (DoE) and the Department of Trade and Industry (DTI).

3. CAB 164/1118, *Future Allocation of Research Council Funds*, Lord Privy Seal, May 1972.

4. MH 166/1322, *Notes of a Meeting on the New R&D Organisation*, 23 March 1973.

research councils affected, but faced the smallest proposed transfer percentage at 25 percent. This can be compared to the 75 percent transfer originally proposed for ARC. A less obvious reason is that the DHSS was the least assertive of the government departments in its attempts to maximise the size of its transfer sum. This diffidence is indicative of the Department's eagerness not to de-stabilise the relationship with the MRC, or at least to do so by no more than was inescapable given government policy.

The MRC's case against the Green Paper was formally laid out in a consultation submission and, more forcefully, in a memorandum to the Select Committee. In both, the Council argued against the customer-contractor principle for biomedical research. The consultation response endorses Dainton's analysis and his proposal for a new body to oversee the relationship between the research councils and government, although arguing for the latter to be watered-down to an advisory rather than an executive body.¹ The MRC's case against Rothschild was a mix of the ostensibly principled and the practical. The Council rejected the utility of the applied/basic science distinction in biomedical research, claiming that 'since basic research on any one subject may illuminate problems in many different diseases, the piecemeal planning of research would be wasteful of money and manpower'. The customer-contractor principle was 'inappropriate for most biomedical research' and would be 'less helpful in the long term in satisfying the needs of government departments than the proposals put forward by the Council'. The 'Haldane Principle' was invoked to argue against greater government influence. As a more immediate and practical consideration, these submissions argued that the proposed funds transfer would damage medical research in both the MRC and the universities.² The Council's objections of principle were reiterations of long-held positions, harking back to Thomson's critique of the applied/basic split. As such, they were interpreted by some commentators as both predictable and self-serving.³ Less predictably, in a letter to

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1. FD 9/1652, *The Views of The Medical Research Council on the Green Paper 'A Framework for Government Research and Development'*.
 2. House of Commons Select Committee on Science and Technology. *Session 1971-72, Research and Development, Minutes of Evidence and Appendices, HC 375* (London: HMSO, 1972), 119-148.
 3. "Smoke but no fire so far," *Nature* 234 (3 December 1971).

The *Times*, the Chairman of the MRC Clinical Research Board, Sir Douglas Black, raised a further grievance.

If the health departments are dissatisfied with the role of the MRC they have conspicuously neglected the opportunity to say so in the account of the department's role in research and development in...*Portfolio for Health*. A glowing tribute is there paid to the MRC, including an appreciation of its independent role, and exemplifying by the setting up of two joint research units 'the intimate collaboration that has existed between the two organisations since they were set up almost simultaneously nearly fifty years ago'.¹

Black was a prominent critic of the Green Paper, signing critical consultation submissions from his unit in Manchester and appearing for the MRC before the Commons Select Committee. Within a few months of this active opposition he had been appointed as Chief Scientist designate at the DHSS, with an announcement that he would take up this post in April 1973. Why did the Department rush to appoint a prominent critic of Rothschild to take over from Cohen as Chief Scientist and to lead under the Rothschild system?

A letter from the Permanent Secretary to Sir William Armstrong, head of the Civil Service Department, written in August 1972, makes the circumstances plain. It begins by saying that the Department had begun looking in earnest for the right person to succeed Richard Cohen 'now that the White Paper has been published'. Rogers reports that the MRC and the Royal Society had been consulted and all agreed that the Department 'should aim for a really top figure in the medical world' who would have scientific credibility but also have a 'strong interest in the efficient and effective development of the health service' and the 'breadth of mind' to also take an interest in the personal social services. The letter then goes on to report that 'by happy chance' and by 'great good luck' they have, through the process of preliminary consultation, happened upon 'the right man', i.e. Black. This letter is worth quoting at greater length, for both its tone and its substance.

He would have been our own first choice, or equal first choice, but by a happy chance he was spontaneously suggested to us by John Gray himself and thus MRC support would be assured. We have now been able to canvas...five out of the six Royal College presidents available and all feel we could not do better. Black's private and public attitude to the Rothschild proposals...was one of moderate and responsible

1. *The Times*, 11 January 1972, 13. Letter from Douglas A.K. Black and Brian Windeyer.

opposition but he made it clear recently at the MRC discussion of the White Paper that, the decision now having been taken by government, it was everyone's duty to make the new arrangements work. We are sure he will do this wholeheartedly. George and Dick, [Godber and Cohen] who know him well, both say there is no one they would rather trust, and he has just the right temperament to strike the right balance between loyalty and independence.¹

The rest of the letter is mainly concerned with making the case against any competitive recruitment process and for appointing Black under an arrangement that would allow him to be paid at medical rather than civil service rates. The letter, which perhaps rather overplays its claims of happy chance, ends with the observation that 'if this could be announced early it might go a long way towards helping the White Paper proposals generally'. As has previously been noted, the Cabinet Office was very anxious about responses to the White Paper and so the appointment of Black as Chief Scientist designate offered reassurance for all parties.

Alongside his letter to *The Times*, Black wrote privately to Godber. Only Godber's reply survives. It shows one member of the medical elite speaking confidentially to another as like-minded moderates, alarmed by how strident the public debate had become.² The attitude of Godber towards the Rothschild reforms is made clear in a 'personal and in confidence' letter to a contact at the MRC, written in response to sight of the final draft MRC submission to the Green Paper consultation. Godber argues that the MRC is making a mistake in opposing any reform, because the status quo is indefensible. He goes on to say that:

You will know that my own wish is to preserve the independence of the Council. I have not sought any kind of formal recognition beyond that which I have had in the past in dealing with the council and my personal relationships with the Council and its officers have been entirely happy. Nonetheless I believe that the Council needs to be seen to be responsive to Health Service needs.³

Godber then argues that the Green Paper actually represents an opportunity for the MRC to obtain more resources for its programme, 'although it is true mainly in the clinical and socio-medical fields'. He concludes by saying that what worries him

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1. BN 13/194, Rogers to Armstrong, 10 August 1972. Sir John Gray (1918-2011) was MRC Secretary from 1968 to 1977.
 2. Wellcome Archives GC/45/C/6, Godber to Black, 25 January 1972.
 3. FD 9/1652, Godber to Owen, 19 January 1972.

most about the whole affair is the risk of damage to the close relationships between the health departments and the MRC. The appointment of Black seems to have succeeded in calming the MRC, so that when the Chief Scientific Adviser made anxious enquiries about the likely reception of the MRC to the imminent White Paper, Godber was able to send a reassuring response.

I just hope the research councils realise they have to make it work. As it happens, although one might have feared that there would be a certain amount of suspicion and hostility while all this has been going on, it is my belief that we have actually got closer to the MRC. The personalities involved are very congenial and I am quite sure that we can make this work and get the closer relationship that we need.¹

A spirit of appeasement is evident in the agreement reached between the two organisations for the future commissioning of biomedical research (BMR). A DHSS submission to the Treasury sets out in two documents how the new arrangements for commissioning BMR, as agreed with the MRC, would work in practice.² This submission is remarkable in the extent to which it baldly re-states the MRC's rejection of the validity of any distinction between basic and applied research in the case of BMR. It begins by arguing that the DHSS had exercised influence over the MRC over many years through its right to appoint observers to the Council and to the Clinical Research Board. It then goes on to discuss the 'special characteristics of biomedical research'. These are that 'the biological processes with which research is concerned are highly complex, and experience indicates that it is rarely possible to define the course of a research programme in advance'. Based on this familiar argument, the submission then invokes Dainton's concepts of 'strategic' and 'tactical' research and argues that 'a very large part of biomedical research is of this strategic kind'.

Strategic research is aimed at intermediate scientific objectives, provides items of evidence and knowledge contributing towards solution of practical problems and is clearly relevant in terms of practical objectives, but it does not attempt to reach those objectives by means of a single program of research planned in some detail from the start and this is not

1. CAB 164/1120, Godber to Cottrell, 23 June 1972.

2. MH 166/1322, *Arrangements for Commissioning Biomedical Research, Arrangements for Co-operation in the Field of Biomedical Research*: enclosures to letter from Betts to Bridgeman, 24 August 1973.

to say that practical results don't emerge from strategic research but only that their emergence is unpredictable.¹

The submission also restates the MRC's long-standing claim that its close links with the medical profession equipped it to judge the likely relevance of research and adds that 'this fruitful contact with direct customers' should not be damaged by the new arrangements with the DHSS. In summary, then, the preamble amounts to an undiluted re-statement of the MRC's objections to Rothschild's proposals, including a rejection of his categorisation of research in favour of that proposed by Dainton. The submission infers that the previous system was not broken and therefore did not need fixing.

These preliminaries can be read as a 'softening up' for the detailed proposals that follow. Thinly veiled in the rhetoric of 'partnership', these essentially provide for *de facto* control of biomedical research to remain with the MRC. All the money transferred was to be spent with the MRC. Biomedical research paid for by the Department was to be managed by the MRC, apart from the locally organised research scheme. The Council would be 'the final authority for scientific policy'. It would set up three new Boards to replace its Clinical Research and Biological Research Boards. Each of these new Boards 'would be responsible for a full range of work within a broad clinical field, from basic clinical research to tactical, clinical and epidemiological research'. These boards would 'initiate policy within their fields' and control funding through grants committees.

Both 'specific' and 'broad' commissions were envisaged. The former required research requirements to be defined in detail by the Department, which was consistent with the spirit of Rothschild. However, specific commissions would 'remain open in case the system for broad commissions does not work satisfactorily'. Broad commissions, which were envisaged as the default mode, would involve five-year block grants for 'sets' of projects related to broad objectives. The individual projects in a 'set' would not be subject to approval by the Department. 'Technically' the Department could refuse to pay for work approved by an MRC Board even though it fell within the scope of a broad commission. However, it was noted that the Department had no intention of invoking such powers because 'the essence of the

1. MH 166/1322, *Arrangements for Co-operation*, 3.

broad commissions is that the interests of the Departments will be best served by allowing the MRC to take certain decisions'. The Department also undertook to manage the portfolio of broad commissions in a way that would ensure 'a reasonably steady level of expenditure and flow of work for the MRC'. Research policy was to be jointly defined 'without discontinuities between "applied" and "fundamental" research, between clinical and biological research, and between research in the different fields of application, while taking the fullest account of priorities as seen from both the scientific and service points of view'.

Overall, this submission exhibits notable consistency with the Cohen Report of 1953 in its arguments and mindset. However, there are some points of departure that reflect the influence of Rothschild and the emergence of new fields of research, for which the Department had become the leading sponsor. The submission recognises the emergence of HSR as a distinct field involving a mix of medical and social science. Both organisations agreed that HPSSR should be controlled by the Department of Health, so that it could be 'both planned and managed in the closest association with the policy development, management services, and planning and analysis work for the Departments'. There is provision for specific commissions, even if it is anticipated that broad commissions would become the default mode. The submission provides for the health departments to have greater influence over research policy, even if this is hedged about with detailed provisions which appear mainly intended to constrain this influence.

Within the apparatus set up by the Department, the Panel for Medical Research (PMR) was given oversight of biomedical research commissioning.¹ Kogan and Henkel document the frustrations experienced by this committee as it struggled to 'assess' broad commissions (they do not mention specific commissions, which the Department had barely attempted). Their explanation for these difficulties is that the panel was too diffident and too diverse in its membership to develop recommendations leading to MRC commissions. The PMR was disbanded in 1977 and replaced with a mechanism even broader than the broad commission, an annual statement of service priorities, to which the MRC would respond with a proposed

1. The panel was established in 1973 (MH166/1322) and disbanded in 1977 (Kogan and Henkel, *Government and Research*, 65).

programme of work. The failure of the PMR to develop a meaningful role is portrayed as the pivotal event leading to the return of funds to the MRC. As elsewhere, Kogan's analysis is fundamentally one of incompatible epistemic communities and of imbalances in authority between these.

The story of the PMR exemplifies the impermeability of the authority of a Medical Research Council grounded in an internalist view of science, and in the notion of indivisibility between basic and applied research.¹

A closer look at the remit of the PMR, as set out in the document submitted to the Treasury, and at its membership, suggests a simpler explanation. The PMR was, from the outset, given no meaningful role. This is evident from the submission to the Treasury, which specifies three responsibilities for the panel. First, it was to formulate the Department's contribution to joint policy for biomedical research. Given the specifics of the MRC/DHSS agreement and the fact that this contribution had to be routed through the Chief Scientist's Research Committee (CSRC) and the Planning Committee (discussed further below), this appears a somewhat ceremonial duty. Second, it was to develop specific commissions. However, only two such commissions were in place by 1977, reflecting a preference on both sides for broad commissions.² Third, it was to undertake retrospective review of the broad commissions. Kogan and Henkel do not make this entirely clear, but the PMR's role in defining broad commissions appears to have been confined to indirect influence and 'rubber-stamping' decisions made elsewhere.³ Given this, it is unsurprising that the PMR subsequently struggled to find some purpose in its existence.

In summary, the intentions of Rothschild had, by 1973, already been subverted in the medical research domain. Commissioning arrangements placed control over DHSS-funded biomedical research largely in the hands of the MRC. Medical leadership under the new regime had been assigned to an MRC stalwart who, although a moderate, was openly sceptical about the Rothschild reforms. The PMR had been established but assigned no meaningful powers or duties. All this was achieved through discussion confined to members of the medical elite, with the

1. Kogan and Henkel, *Government and Research*, 71.

2. Comptroller and Auditor General, "Report of the Comptroller and Auditor General," in *Appropriation Accounts (Volume 3, Classes X-XV and XV11), 1977-78*, 1979.

3. MH 166/1322, *Arrangements for Commissioning Biomedical Research*, 41.

administrative side of the Department only being informed once agreements had been reached. Specifically, the principles for commissioning biomedical research were agreed through a convivial dialogue between Godber, Cohen, John Gray, Douglas Black (in his capacity as Chairman of the CRB), and Dr G. K. Matthew, who was later appointed Deputy Chief Scientist.¹ This group was of the view that it was 'highly desirable to come to an agreement about links between officers of the Council and Department while the organisational situation at the Department was still fluid'.²

Organisation and management for R&D

Implementation of new administrative arrangements, in response to Rothschild, can be divided into two phases. In the first phase, beginning with the publication of the White Paper in July 1972, Richard Cohen provided leadership for the DHSS, with support from John Cornish. After Cohen's retirement in March 1973, the implementation lead passed to the administrative side. This discontinuity had significant consequences for the programme, as will be shown.

Cohen's involvement in administrative matters was unremarkable, given his position as interim Chief Scientist and his personal contribution to integrated working during the 'golden age'. The approach adopted was a continuation of that followed by the informal team, with Cohen focusing on medical research and Cornish on operational and social research. There was less urgency to attend to the implications of Rothschild for HPSSR than there was to make arrangements for biomedical research. No funding transfer had been proposed from the SSRC, which had been excluded from the scope of the Rothschild reforms on the grounds of immaturity. The relevance of these reforms was not immediately obvious to those streams that had already developed satisfactory arrangements for commissioning R&D, such as Supplies. As late as January 1973, a progress review meeting, chaired by the Permanent Secretary, heard that although there had been intensive dialogue with the MRC about biomedical research, there had been no discussion with either the MRC or the SSRC about future arrangements for HPSSR. Nor had any conclusions had been reached about future management of the research under the

1. MH 166/1323, various – especially Gray to Cohen, 13 September 1972.

2. MH 166/1323, notes of a DHSS/MRC meeting, 13 June 1972.

control of the ‘specialist branches’ (supplies, computers, buildings, engineering and social security).¹ A note from the last progress review attended by Cohen before his retirement, summarises the constraints under which he had been working and his aims during this first phase. It stresses the need for continuity, integration, clarity of roles, and the need to align the new R&D organisation with new structures in the reorganised NHS and DHSS.

The new organisation had to be set up within the constraints imposed by the White Paper and taking account of the Department’s existing research organisation, the recent reorganisation of the Department and the forthcoming NHS reorganisation. Dr Cohen and his colleagues had the following aims in setting it up: that all the Departmental interests should be integrated; that the existing scientific machinery of the MRC and the SSRC should be involved but not duplicated; and that as far as possible, particularly where transferred funds were concerned, unified machinery for the whole of Great Britain should be worked out.²

During the first quarter of 1973, leadership for implementation passed from Cohen to Kenneth Stowe. In the 1973 *Civil Service List*, Stowe is shown as Under-Secretary heading the Computers and Management Services division. But from April 1973 onwards he identifies himself in internal documents as head of a Computers and Research Division (C&R). Whatever his formal role, he was closely involved in the reorganisation because he was trusted by the Permanent Secretary, Sir Philip Rogers, as a resourceful and competent individual of a managerial bent.³ We can surmise that several considerations prompted this passing of the baton from medical to administrative leadership. Cohen was retiring imminently, and it was clear that his successor, Douglas Black, would be less involved in administrative matters. Cohen was an experienced medical civil servant, whereas Black was not. The government’s Chief Scientific Adviser had expressed discontent with the slow pace of implementation and the Permanent Secretary needed to up the pace. There was a pressing need to integrate R&D into the new planning systems that were central to the DHSS and NHS reorganisations.

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1. MH 166/1320, *New Organisation for Research and Development*, Notes of a meeting held by the Permanent Secretary on 26 January 1973.
 2. MH 166/1322, Notes of a meeting on the new research and development organisation, 23 March 1973.
 3. Interview with Dr Robert Maxwell, Cambridge, November 2016.

Before considering the final structures implemented under Stowe's leadership, it will be helpful to backtrack and consider three inter-related developments. The first of these was the reorganisation of the DHSS. The second was the positioning of 'planning' as the force that would bind together the cumbersome structures created through reorganisation. The third was the failed attempt under Cohen's leadership to integrate research led by the 'specialist branches' into a single, co-ordinated R&D programme. These developments had occurred over the preceding three years and were, taken together, the principal determinants of the situation inherited by Stowe in early 1973.

Reorganisation of the DHSS

The 1974 reorganisation of the NHS has been extensively documented by historians of the NHS. Webster chronicles its protracted gestation; the unsatisfactory nature of the structures created; and the mysteries of its core doctrine of 'consensus management'.¹ Other historians offer equally negative assessments of this first attempt to make the NHS more functional through structural reform.² The preceding reorganisation of the DHSS has been much less widely explored. Webster deals with it, together with a similar exercise in Scotland, very concisely, in contrast to his extensive treatment of the NHS reorganisation.³ Levitt provides a brief overview, written soon after the event, but again focuses more on the NHS.⁴ In what follows, it is argued that the reorganisation of the DHSS had profound and negative consequences for the functioning of the R&D organisation in the Rothschild era. To understand why this was so it is necessary to understand the background to this initiative, and the thinking that shaped it.

Origins and aims of the wider reorganisation

Reorganisation of the DHSS was first proposed early in 1970 by the Permanent Secretary, Clifford Jarrett. The prospect of NHS reorganisation, which had already been under discussion for three years, was foremost in his mind as a spur to action.

1. Webster, *Health Services*, vol. 2, 321-373, 451-579.

2. Klein, *New Politics*, 66-72. O'Hara, *Dreams to Disillusionment*, 198-204.

3. Webster, *Health Services*, vol. 2, 377-382.

4. Ruth Levitt, *The Reorganised National Health Service* (London: Croom Helm, 1976), 32-39. Later editions do not add any further information on the DHSS re-organisation.

In addition, there were ‘several areas, mainly concerned with long-term planning’ where the situation was causing anxiety, including S&R. Jarrett also wanted to look at the possibility of replacing the parallel administrative/professional hierarchy with integrated structures. In addition to health services, which were his primary concern, the review also eventually encompassed personal social services and the unresolved challenges of integrating health and social security.¹ Jarrett’s proposal was welcomed by the Civil Service Department, which also readily agreed to his request that management consultants should be engaged to assist with the exercise.² A review team, chaired by Jarrett’s successor, Rogers, and including Godber, Cohen and Rudoe, was formed and began to meet regularly from September 1970.

The review team, as a matter of priority, wanted to enhance planning capabilities through any reorganisation. The Hospital Plan and, to a lesser extent, the Health and Welfare Plan have been portrayed as high-points of planning in the NHS.³ But attempts to implement and refine both were hampered by the Department’s limited planning capacity. The Treasury took advantage of this weakness to block bids for additional resources, slowing implementation.⁴ Continuing weakness was symptomatic of the fact that no one part of the Department was responsible for co-ordinating planning across the whole. An impressive-sounding ‘Long-Term Planning Division’ had been established in 1967, but became fully and exclusively committed to the reorganisation of the NHS. A planning group was also inherited from the Ministry of Social Security, but its remit remained specific to this field. The theory was that planning was undertaken as an integral part of the work of all 22 divisions. The Department tried to make a virtue of these arrangements, describing them as ‘flexible and empirical’.⁵ In reality, it appeared increasingly backward as the adoption of new planning techniques became emblematic of modernity in both private and public sectors.

1. BN 1/49, *The DHSS in Relation to the Health and Social Services. Review Team Report: Summary*, June 1972.

2. CAB 152/143, Armstrong to Jarrett, 15 June 1970.

3. Mohan, *Planning, Markets and Hospitals*. O’Hara, *Dreams to Disillusionment*, 167-204.

4. Webster, *A Political History*, 33-90

5. CAB 152/143, *DHSS*.

Thinking about planning at the Department was subject to external influences. ‘Strategic planning’ became a corporate cult in the second half of the 1960s.¹ As adopted by the private sector, this involved central planning units administering elaborate planning cycles, gathering and analysing vast amounts of data. This approach rested upon uncritical belief in the possibility and utility of comprehensive rational, or ‘synoptic’, planning.² PPBS (planning, programming, budgeting systems), as developed in the USA, was a further important influence. PPBS was a tool to improve resource allocation in the public sector. It involved the definition of programmes and the allocation of costs and outputs to programmes, allowing comparative cost-effectiveness analysis. This approach was conceptually well-aligned with the Public Expenditure Survey Committee (PESC) system, which supported medium-term planning across government. PESC was introduced in 1968 and became more prominent under the Heath government.³ The DHSS decided to introduce PPBS in 1970, because it was worried that it would otherwise be disadvantaged in the PESC process.⁴

Anticipation of Rothschild

The R&D organisation that existed before Rothschild had proved capable of supporting rapid growth, regardless of the need to work across organisational boundaries. The Department’s policies also anticipated most of Rothschild’s principles and recommendations. The scheme introduced by R&DC in 1967 introduced the customer-contractor principle. The role of ‘sponsor’ is functionally identical to Rothschild’s ‘customer’, as is that of ‘agent’ to ‘contractor’. However, the Department did not anticipate Rothschild in the details of its organisational arrangements. It did not separate out roles equivalent to those defined by Rothschild as Chief Scientist and Controller R&D. This was because the DHSS did not possess the in-house research resources enjoyed by other government departments, and so

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1. Henry Mintzberg, *The Rise and Fall of Strategic Planning* (Hemel Hempstead: Prentice Hall, 1994), 43.
 2. Barclay M. Hudson, "Comparison of current planning theories: counterparts and contradictions," *Journal of the American Planning Association* 25, no. 4 (1979): 387-398. Gill Walt, *Health Policy. An Introduction to Process and Power* (London: Zed Books, 1994), see pages 46-52 for discussion of rational planning.
 3. Hecló and Wildavsky, *Private Governance of Public Money*, 198-263.
 4. G. T. Banks, "Programme budgeting in the NHS" in *Planning for Welfare*, ed. Timothy A. Booth (Oxford: Basil Blackwell, 1979), 150-172.

did not see the need for a Controller.¹ Instead it had developed brokering and research management roles using a combination of the informal team (S&R and medical staff), specialist divisions (supplies, buildings, computers, social security), and the R&D committee. These roles and functions were all subsumed within the humble-sounding ‘administrator role’ in the Department’s scheme.

By 1968, the R&D Committee was feeling the limitations of these arrangements and began to contemplate a more authoritative scientific leadership role. This was prompted by the growing commitment to designated research units. The committee realised that there were natural limits to the size of units and to the breadth of the work each could feasibly undertake. Consequently S&R was faced with the task of overseeing and co-ordinating a growing number of units. Unit directors were enterprising research leaders, usually at professor level, and it became increasingly obvious that the Department needed someone of equivalent status to oversee unit activity. R&DC concluded, therefore, that:

Our first requirement is a chief research officer of professoride (sic) status. He should have wide experience of research into health services and his appointment should desirably be full time, but we might have to accept part time service to get the man we want. His terms of reference should be to develop the linking functions between research and policy-making..., to advise the Department on its research strategy and programme and to co-ordinate the work of the research units supported financially by the Department.²

The Department did not take this idea further, perhaps because its existing arrangements were just about adequate. In 1971, Rudoe and Cornish told the CPRS that ‘in a sense Dr Cohen was the Chief Scientist’ for medical research. For operational research Rudoe ‘was essentially the customer’s man’. Administrative help and co-ordination for the designated units was provided by Cornish ‘who, in a way, had some of the functions of Controller R&D’.³ Rothschild-like structural elements were thus present before 1971 although these were not fully and clearly developed in line with the emphatic prescriptions of the *Framework*. The customer-

1. CAB 168/230, *R&D Review: DHSS*, meeting note 12 May 1971.

2. MH 166/974, *Research Units – Future Policy* SR4 May 1968. The person named as ‘the man we want’ is Archibald Cochrane, although there is no evidence that he was ever approached about such a role

3. CAB 168/230, *R&D Review: DHSS*, meeting note 12 May 1971.

contractor principle had already been adopted and formalised. These precursors should have made the transition to full adoption of Rothschild-compliant research management arrangements relatively easy, as should the pan-government movement to couple research and planning more closely.

Planning and research

The Fulton committee recommended that every government department should establish a planning and research unit.¹ At the Department, the connection between these two functions had been made as early as 1966 by Wolf Rudoë, who argued that commissioned research was more likely to be used for policy formulation if it was made available to a central planning function. His proposed solution was for the R&DC to assume a cross-departmental planning role. This was not taken forward at the time but, in 1970, Rudoë returned to these ideas. In a more receptive context, he became more ambitious, proposing that a new ‘information appraisal and planning division’ should be established. This would be responsible for appraising research and bringing its implications to the policy divisions; for liaising with policy divisions over future research requirements; and for developing in-house capacity for operational research. In addition, the new division would ‘be responsible for the overall planning of health and personal social services’.² At the same time, Rudoë also proposed breaking up his own S&R division, on the more mundane basis that his span of control had become too large. The recently-established in-house Operational Research Unit (ORU) was already taking up a great deal of his time and growth was planned.³ Moving the research branches into a new division would enable him to give greater attention to the statistical work of his division.

The bringing together of planning and research was not a foregone conclusion. A rival school favoured the model of a stand-alone central planning unit. The Assistant Secretary dedicated to the review, Ron S. Matthews, advanced well-developed proposals for such a unit, arguing that this ‘should not be too heavily involved with

1. Garrett, *Management of Government*, 113-115.

2. CAB 152/143, *Proposal for the establishment of an information appraisal and planning division*.

3. CAB 152/143, memo by Rudoë, 17 August 1970.

research functions'.¹ In December 1970, the review team approved the establishment of a stand-alone central planning unit.² Yet in June 1972, when the first phase of the DHSS reorganisation was implemented, a 'Planning and Research and Development Division' (PRD) was established. S&R (briefly) ceased to exist at this point, with its research functions transferring to PRD, leaving a new 'Statistics and Surveys Division' as a rump.³ At this point it seemed as if the model of the planning and research unit had prevailed over that of the central planning unit.

PRD was led by Under Secretary J. S. Orme and had five branches. One, under John Cornish was responsible for co-ordination of the overall HPSSR programme. Responsibilities for commissioning were split between this branch and a second, led by Cornish's former deputy Leslie Best. The Central Planning Unit made up the third branch. A fourth branch was responsible for PPBS, Programme Analysis and review (PAR) and other related analytical work. The final branch was the in-house operational research service, led by A. G. McDonald. The work of the division could thus be summarised as follows:

The Division provides support services in central planning; research and development; programme analysis and review (PAR); planning/programming/budgeting (PPB); and operational research.⁴

At this point, it seemed as if Cohen's aim of 'taking account of the Department's existing research organisation' had been met. PRD placed research at the heart of the new planning processes that would shape the reorganised NHS. The new division represented an evolutionary development from the research components of S&R, maintaining branches for research management under individuals drawn from the informal team and tying these in with in-house research resources and new planning capacity. Within these new arrangements, Cohen led on medical research and Cornish was given the lead for SSRC liaison and for the development of personal

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1. CAB 152/143, *The possible shape, coverage and linkage of a departmental long-term planning team*, October 1970.
 2. CAB 152/143, *Establishment of a Departmental Planning Unit*, 3 December 1970.
 3. Confusingly, the name of this Division was changed back to 'Statistics and Research' when PRD was broken up in 1973. A branch of the reborn S&R division assumed responsibility for social security research and this became a 'specialist branch'.
 4. MH 166/1320, *PRD Division. Division of Duties*, 16 October 1972.

social services research.¹ Cohen must have felt that he was approaching retirement with continuity assured and R&D strengthened. Yet only a year later, PRD had been broken up; its component parts-reassigned to a further wave of new Divisions; and Cornish re-assigned to duties unrelated to R&D.

Establishing exactly why this happened is problematical, given the pace of events. The main influences appear to have been a push-back from administrators against the idea of a too-influential Chief Scientist and, in a second phase of reorganisation, the adoption of the over-elaborate organisational solutions. It is also possible that Stowe's wishes were influential in moving research management into his new C&R division. In his resistance to integration and a powerful central R&D function, Stowe's views appear typical of those civil servants responsible for the specialist branches.

The specialist branches

As has been described, the programme before Rothschild was less than fully integrated and relied on mechanisms such as the R&DC for co-ordination. This was the context for Cohen's goal 'that all the Departmental interests should be integrated'. The Rothschild reforms offered an unprecedented opportunity to realise this goal. However, Cohen's and Cornish's attempts to integrate the 'specialist branches' into the new R&D organisation revealed the capacity of specialist interests to frustrate rationalisation.

Computing research provides a good illustration. As has been previously noted, the status of the experimental computer programme (ECP) within the programme was ambiguous in its early years. Although the Computer Policy and Development Branch (CPDB) was initially attached to S&R, ECP was only ever of peripheral concern to the R&D Committee and was excluded from the scope of the programme in *Portfolio 1*. Management of CPDB was transferred to a new Management Services Division (MS) in 1971. This was managed by Stowe and was renamed the Computers and Management Services Division (CMS) in 1972. Stowe led a review of ECP, which had run into serious difficulties with the Treasury. The Treasury maintained that the Department had acted beyond its delegated authority in initiating the programme and was apprehensive about its consequences for hospital running

1. MH 166/1321, Correspondence between Cornish and SSRC.

costs. Stowe brought the programme under greater central control and trimmed it back just enough to appease the Treasury.¹ It was only after this review that discussion began about ‘establishing the centrally-financed NHS computer programme on an R&D basis and as part of a Departmental R&D programme’.² This may have been primarily intended to strengthen evaluation, but it can also be seen as a strategy for laundering questionable funding decisions taken in previous years.

The task of working out how to properly integrate the ECP into the R&D programme was given to Cornish, who produced a draft proposal.³ This included statements about the advisory role of the Chief Scientist in computer research. The document also suggested that the Chief Scientist, as a member of the Planning Committee, should also take over the chair of the Advisory Committee on Medical Computing (ACMC) and included a recommendation that ‘the extent to which the MS Division may act as its own customer for R&D should be determined’. These recommendations provoked a hostile response from the head of CPRD, who raised various difficulties to argue that the exceptional circumstances of computing research meant that only MS could act as customer. He also objected to the idea of the Chief Scientist chairing ACMC, arguing that an independent chair was needed, not least so that his branch could ignore the committee’s advice if it did not agree with it.⁴ What underlay this reaction was a fundamental objection to the idea that the Chief Scientist should have any real influence over computer research.⁵ Stowe, in his capacity as the head of MS, sought a compromise in which the Chairman of the ACMC would be drawn from the ranks of the Chief Scientist’s external advisers. Ultimately, he backed White’s position, putting proposals to the ACMC that side-lined the Chief Scientist into a purely advisory role on matters of computing research.

Cornish and Cohen also met with resistance on the same grounds from the building and engineering division.⁶ This explains why it was reported in early 1973

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1. Davies, *Experimental Computer Programme*.
 2. MH 166/1322, Stowe to Cohen, 20 October 1972.
 3. MH 148/648, *Principles and procedures which should apply to the computer programme on its integration into the general R&D programme*.
 4. MH 148/648, White to Stowe, 30 August 1972.
 5. MH 148/648, White to Stowe, 5 December 1972.
 6. MH 166/1322, Somerville to Cohen, 5 December 1972.

that more consultation was needed as to whether there should be a comprehensive R&D programme after all. ‘The real test’, it was noted, ‘is whether genuine R&D is undertaken in these areas’, suggesting that the Department was, by this stage, looking for grounds to justify leaving the specialist divisions to their own devices.¹

Reorganisation – final phase

The Department was, as has been noted, keen from the outset on involving management consultants in the reorganisation exercise. A contract for advisory services was awarded to McKinsey and Company, who began work in May 1971. The review team was aware that the CPRS study of government R&D was under way, and concluded that ‘it is sensible to approach the organisation of research at this stage, at least in a preliminary way, in the context of the overall reorganisation of the Department’.²

Review recommendations were summarised in a report published in 1972.³ From its style and vocabulary, which is consistent with working papers, the authors of this document can be assumed to be McKinsey and Co. The report recommended ‘more rigorous planning method’ and proposed the creation of a Planning Committee.

We recommend a planning committee as the medium through which the top of the office should develop recommendations to the Secretary of State on national objectives and priorities in health and social services and in the Department’s own work.⁴

This recommendation should be read alongside the guidance issued on the NHS reorganisation in the same year. This publication, the ‘grey book’, introduced an elaborate five-tier structure together with three governing principles. The first of these was ‘consensus management’, which was required to operate both horizontally, between different occupational groups, and vertically, across the tiers of the new structure. The second was that ‘delegation downwards should be matched with

1. MH 166/1320, meeting notes 30 January 1973.

2. CAB 152/143, *Study Plan – Next Steps* 3 June 1971.

3. Department of Health and Social Security. *The DHSS in Relation to the Health and Personal Social Services. Review Team Report - Summary*. London: DHSS, 1972. (In BN 1/49).

4. *Ibid.* para. 21.

accountability upwards'.¹ This can be deciphered as a realistic assessment that the desire for greater central control had to be balanced with acceptance of a measure of local autonomy, given existing limitations to the Department's intelligence and administrative capacity.² The third was the centrality of planning to the operation of the new system. Planning, underpinned by better information, was the glue that would hold together these complex structures and contradictory impulses.

The planning process, combined with selective monitoring and control, is the means by which decentralisation of decision-making will be combined with central strategic direction and control.³

The report also recommended a move to 'client-based' organisation and planning. This recommendation was influenced by work on the implementation of PPBS, which had included definition of client groups.⁴ This exercise had not been straightforward, given the range of clients served by the NHS and the concentration of resources in hospitals, which served many client groups. The outcome was a hybrid system, combining planning 'blocks' for client-based groups, some of which were small, (for example, services for the mentally handicapped) with service-based groups (for example, acute hospitals).⁵ The report backed away from recommending the creation of integrated staff structures in favour of 'separate but co-ordinated hierarchies' and vague notions of 'joint working'.⁶ Specific recommendations on R&D are confined to one paragraph, which reflects the Rothschild mandate and the creation of PRD.

There will be an increased emphasis on research and planning. For example, a Chief Scientist is recommended to help customers improve the use of research. Also the planning committee will be established to guide the Department's planning effort. And a new Planning, Operational Research and Research Administration Division has been established (composed mainly of existing branches).⁷

1. Department of Health and Social Security. *Management Arrangements for the Reorganised National Health Service*. London: HMSO, 1972, 10.

2. Klein, *Eternal Triangle*, 291-3.

3. DHSS, *Management Arrangements*, 44.

4. MH 159/414.

5. Banks, *Programme budgeting in the NHS*, 158.

6. DHSS, *The DHSS in Relation to Health and Social Services*, paras. 18-20.

7. *Ibid.* para. 28.5

The summary report was underpinned by more detailed recommendations in eight volumes, of which number seven related to R&D. These detailed volumes cannot be traced and may not have survived.¹ Whether originating in volume seven, or having been developed by officials subsequently, an elaborate new architecture for R&D management emerged.² The new system required interaction between four separate groups of actors within the R&D organisation: policy divisions, research management, research contractors and the Chief Scientist. The responsibility of policy divisions was to act as customers and to propose objectives for the programme to the Planning Committee.

It will be for the policy divisions (advised by the Chief Scientist and research management) to satisfy themselves – and to justify to enquirers – the expenditure on research and development in their subjects.³

The role of the Chief Scientist at the DHSS had thus drifted away from supporting customers in the articulation of their research requirements, which was what Rothschild envisaged. Instead, the Chief Scientist was expected to ensure that the programme ‘in its separate parts, is subject to scientific scrutiny as to feasibility, quality and assessment of results’. Research management was given ‘ultimate responsibility...for securing the translation of the approved research objectives within...research resources’. This function was, however, to be highly fragmented and, critically, more fragmented than under S&R in the ‘golden age’, with the role spread between approximately 20 administrative units of the Department, grouped under six headings: supply and equipment, building and engineering, computers, personal social services, social security and health care services. This outcome represented not just the triumph of the specialist branches in their bids to retain autonomy, but a move towards even greater fragmentation of control. The role of the research contractors requires no further explanation, other than to observe that this continued to include both in-house and external researchers with the former now somewhat strengthened by the growth of EAO and ORS.

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1. Levitt refers to these underpinning volumes, but it appears that her discussion of the DHSS reorganisation is based entirely on the summary report. Webster’s account gives more detail, which may reflect access to the detailed volumes, but his referencing is unclear and includes an apparent error (references 25 and 26, p.902).
 2. MH 166/1321 *Research and Development – General Framework*, February 1973.
 3. Ibid.

These four actor groups were thus brought together in an architecture with many parts, all subject to the primacy of the Planning Unit.¹ Even before implementation had begun, some within the Department began to worry about how these complex new arrangements would work in practice. Dr G. K. Matthew wrote a provocative memorandum in March 1973, starting with the observation that ‘in a year’s discussion, no-one has dared to make clear-cut proposals on how decisions on the R&D programme will really be made’.² Matthew offered five different models, each with a different weighting of influence between the group actors: ‘cell dominant’; ‘research management dominant’; ‘advisory group dominant’; ‘Chief Scientist dominant’; and ‘total consensus’. John Cornish was also concerned, and made the following observation.

The seemingly simple Rothschild concept of four different types of player in the game of R&D viz: - customer, contractor, chief scientist and controller R&D, leads to very sophisticated relationships between the four when they are required to work in full partnership and yet each retain their own individual responsibilities for decision making; there is no captain.³

Matthew and Cornish had identified a critical challenge: the new architecture balkanized the task of leading and managing the R&D programme. Rothschild’s prescriptions for strong leadership of customers and suppliers had been lost in a luxuriant tangle of organisational design and competing interests. The Research Liaison Group (RLG) was promoted as the integrating mechanism that could overcome this fragmentation. ‘The idea of the RLG’, wrote Stowe in June 1973, ‘is to secure effective collaboration of all four parties with the minimum of formality’. RLGs were to be structured in line with the mixed client/service group model adopted for the planning process. The intention was that they would eventually cover all aspects of the Department’s work, apart from biomedical research commissioning. As policy issues arose, new RLGs might be set up to determine and monitor research requirements.⁴

1. See chapter 9 for further details.

2. MH166/1322, *Proposals for Management of R&D. How to decide – some models.*

3. MH148/648, *Principles and procedures which should apply to the computer programme and its integration into the general R&D programme.* 16 August 1972.

4. MH 166/1321 *The re-organisation of research and development in DHSS*

One final change cemented the inherent weakness of the new organisational structure. In April 1973, after less than a year of existence, the Planning and Research Division was broken up in a further wave of reorganisation. Its two research administration branches were moved into a new Computers and Research Division (C&R), headed by Stowe. Its remaining branches, dealing with planning and operational research, were moved into a new Central and Planning Services Division.¹ This severed the day-to-day organisational link between planning and research, which thereafter had to rely on the RLGs; the presence of the Chief Scientist on the Planning Committee; and the requirement for preparation of an annual 'R&D statement' as part of the planning cycle. As part of this reorganisation, Cornish was moved to one of the hospital services divisions, ending his involvement in R&D. This represented a further loss of organisational memory, following as it did close upon the retirement of Cohen and Godber. The sole survivor from the 'golden age' was now Leslie Best, who headed up one of the two research branches in C&R. These two branches held, between them, responsibilities for R&D including policy development; support for the Chief Scientists; and managing contracts with the designated units. They also served as the default leads for HPSSR commissioning, but their powers of patronage and co-ordination were less than those enjoyed by S&R.

From enlightened patronage to fragmented bureaucracy

For a time, while Cohen and Cornish were still involved, it looked as if the programme might be held together in a way that might have enabled the continuation of enlightened patronage for HPSSR. With the benefit of a more authoritative role for scientific leadership, in the person of the Chief Scientist, then it should have been possible to develop a more integrated and influential programme, building on the successes of the first decade. With Cohen and Cornish gone, and the Department committed to the structures described above, this possibility evaporated. The Department was left with a system in which it was relying heavily upon an untested model of deliberative working, the RLG, to pull together the interests of the four actor groups. Although some RLGs were relatively successful in achieving this, others were not and the goal of comprehensive RLG coverage was never achieved.²

1. *Imperial Calendar and Civil Service List*, 1974.

2. Kogan and Henkel, *Government and Research*, 76-90.

The Department had contrived to implement a system that was perfectly designed to frustrate many people by involving them in time-consuming processes, the distinguishing characteristic of which was highly diffused leadership and a lack of clarity about where authority and control resided. In theory, and as with the NHS reorganisation, planning was the glue that would hold all of this organisational complexity together. In practice, planning fell short of this expectation.

Concluding discussion

The *Framework for Research and Development* was intended to give administrative departments more control over R&D. Government anticipated that this policy would direct publicly-funded R&D more towards the practical questions facing public policy and services. The DHSS R&D programme had been developed to commission service-relevant research and had already adopted customer-contractor principles. The White Paper represented an endorsement of the programme's governing principles and presented several unprecedented opportunities: to increase funding for service-orientated medical research; to increase scientific input to policy-making; to strengthen research management; and to develop a fully-integrated programme. Furthermore, the reorganisation of the DHSS offered the opportunity to integrate research and planning. In 1972, then, the stage seemed set for a major step forward in the development of the health research state. The structural paraphernalia of Chief Scientist, committees, and commissioning arrangements with the MRC represented, on the face of it, modernising moves that would reinforce the move towards greater rationality in government. The underlying reality was more ambiguous.

For biomedical research, commissioning arrangements had been put in place that left the locus of control with the MRC, subject only to some greater access to decision-making by the health departments. The role of the Chief Scientist had been made toothless and the office was occupied by an MRC stalwart who was openly sceptical about the Rothschild reforms. The consequences have been documented up to 1977, when the panel for medical research was disbanded, by Kogan et al. Subsequent events, culminating in the return of transferred funds to the MRC, are examined in the next chapter. For all other types of research, a dysfunctional bureaucracy had been created. In 1977, a 'management review' of the DHSS by the

Civil Service Department was strongly critical of arrangements for research management, identifying the following problems: confusion of responsibility for research management; confusion of accountability; and lack of co-ordination.¹ Further change followed. It was these underlying realities of medical subversion and bureaucratic muddle that determined the following years of difficulty documented by Kogan et al. The die was already cast in 1974.

Why did the Department implement such a dysfunctional system? The answer to this question is evidently not the same for BMR as it is for HPSSR. It has been argued that the MRC did not perceive the departmental programme as a threat to its structural dominance. The Green Paper radically transformed this situation, coming as a rude shock to research councils that had largely evaded earlier attempts to curtail scientific self-governance. The continuation of the MRC's programmes was not seriously threatened by the proposed funding transfer. Its autonomy and belief in its superior authority were, and the stridency of its reaction to Rothschild must be seen in this light. The tone of its campaign dismayed moderate members of the medical elite, such as Godber and Black, who saw the reforms as an opportunity to strengthen socially-relevant medical research across organisational boundaries. Godber and Cohen had no desire to challenge the independence or structural dominance of the MRC, they just wanted to make it more responsive to NHS needs. They would have settled for influence rather than the power of the purse. The corporate rationalisers in this situation were the CPRS and the Cabinet Office. These external influences, wielding modernising science policy, threatened to destroy the shared values and trust-based working relationships between the senior medical staff in the two institutions. In this situation, the instinct of the moderate members of the medical elite was to close ranks and to work out leadership and commissioning arrangements that constructed a facade of compliance with national policy, whilst neutralising the underlying intentions.

On the administrative side, the explanation for how the Department could have ended up with such a dysfunctional system is less obvious. There are three possible explanations. These are interlocking rather than mutually exclusive and all three are probably valid to some degree. The first is that the Department never really intended

1. BN 152/9, *DHSS Management Review. Report of Study 7. Planning and Control of Research and Development, October 1977*, 83-84.

the outcome it achieved. Between the creation of the DHSS in 1968 and the 1974 NHS reorganisation, it was faced with a huge agenda set by multiple policy initiatives, many of which called for some form of organisational change. The challenge of designing solutions that accommodated all of these initiatives must have been daunting.¹ The DHSS looked to management consultants to help them manage their organisational challenges. It put all its eggs in one basket by appointing McKinsey and Co to advise on both DHSS and NHS reorganisation. The solutions proffered in both cases proved over-complex in practice. Design and implementation did not happen in a stable context. New initiatives emerged sequentially, requiring adjustments to the masterplan 'in flight'. Anthony King has argued that government began to fail more frequently in the 1970s because the business of government became more difficult. In this interpretation, the Rothschild reforms at the DHSS may represent a case study in 'overload'.²

A second possible explanation looks to structural interests. One of the most surprising aspects of the implementation of Rothschild at the DHSS is that the Department ended up with arrangements for research management that were more fragmented, not less. The resistance of the 'specialist branches' to greater integration has been noted, but aversion to the idea of greater control of R&D by the Chief Scientist is likely to have been more widely encountered. In his illuminating study of Fulton, Garrett observes that the day-to-day business of government departments is really run by their divisions (or equivalent functional units), each of which is run by Under-Secretaries. These are the 'anchor men'.³ These divisional leads may have wished to preserve or strengthen their ability to dictate the R&D agenda and so resisted a strengthening of central co-ordination. Stowe himself, the implementation leader in 1973, shared this outlook, as he demonstrated over computer research.

A third possibility is that the rational myth of synoptic planning was allowed to over-determine structures. In early 1973, Stowe told colleagues that 'since the management of the R & D programme is deliberately being geared into the work of

1 I am grateful to Nancy Korman for pointing out the sheer scale of the organisational challenges facing the DHSS in these years.

2 King, Anthony. "Overload. Problems of Governing in the 1970s," *Political Studies* 23 no.2 and 3, 1975: 284-296.

3. Garrett, *Management of Government*, 71. See also Kogan et al. *Government's Commissioning of Research*, 8.

the planning committee it cannot really begin until arrangements to that end have been worked out'.¹ In the Grey Book, the paramount forum was the planning committee. The cycles of planning in the NHS were to yield information that would be summarised and brought to this forum, which would then decide upon medium-term priorities and oversee submissions to the PESC process. R&D was expected to serve this process and the new organisational architecture assumed that it would always be problem-solving. These assumptions turned out to be unrealistic.

This last possible explanation illustrates how the new organisation for R&D might be interpreted using institutional theory. It exhibited face conformity with the institutions promulgated by national science policy: the office of Chief Scientist; the customer-contractor principle; and the greater involvement of scientists in policy-making. It likewise conformed to the myth of synoptic planning, to which structures for R&D management were made subservient. To serve both science and planning, the Department invented new institutions in the form of its committees and liaison groups. In this way, it demonstrated compliance with politically-favoured institutional logics and thereby gained legitimacy. Institutional theory posits that such conformity is prioritised above considerations of task performance, which are often surrounded by great uncertainty in any event. The history of the departmental R&D programme in this period conforms to this theory.

When it came to biomedical research, the situation was complicated by the overlay of an older and competing institutional logic. The community represented by the MRC adhered to the belief that it was right for science to determine research priorities through the application of its own criteria. The institutional consequence was an elevated level of scientific self-governance. When incompatible institutional logics are brought together in time and place, those that are politically-supported may be 'layered' onto older logics but not displace them. The outcome is usually a period of organisational turbulence as competing logics contest for dominance in the arena.²

On the theme of exchanges for health research, the fragmentation of structures at the Department makes generalisation difficult. The crucible within which the four elements of the structure were to be combined was the RLG. This forum, on the face

1. MH 166/1321, Memo by Stowe, 13 February 1973.

2. Kitchener, *Mobilizing the logic of managerialism*.

of it, was an organisational innovation that would promote interchange between researchers, policy-makers and practitioners. Kogan saw the RLGs as the answer to many of the Department's problems. However, he also documents variation in achievements and modes of working.¹ Whatever their immediate utility in the system, it seems likely that RLGs would have been an engine for the formation of new networks in research and policy. Detailed case studies of RLGs, of the sort used to examine the dynamics and impact of networks for policy and research, would be needed to test this hypothesis – a task that is beyond the reach of this thesis.²

At the beginning of this chapter, some limitations to the work of Kogan et al. were identified. The conclusion was reached that a detailed study of the years 1971 to 1973 would add to this body of work. The material presented above shows how events between these years created the conditions under which the operation of the Rothschild system would prove difficult in practice. This adds to the Kogan analysis in two ways. First, and most obviously, it further explains some of the phenomena they document by tracing their roots in a transitional period. Second, it challenges the adequacy of the explanation of the failure of the Rothschild experiment as being ultimately due to a clash of two fundamentally incompatible epistemic communities. This chapter suggests alternative explanations resting on structural interest theory and institutional theory, together with more mundane considerations of 'implementation overload'. As such it adds to the findings of Kogan and his colleagues, fleshing out their statement that the causes of failure were 'social, epistemological and institutional'.

1. Kogan and Henkel, *Government and Research*, 76-90.

2. Berridge, *Making Health Policy*. The case studies in this volume are constructed around various policy issues. It would be interesting to attempt some case studies with RLGs as the unit of analysis.

9. Rothschild Partly Demolished: 1978 to 1981

I do not believe that the DHSS has been, or can become in the foreseeable future, a sufficiently attentive gardener to bring the tender plant of health services research to full vigour. True the Department is interested in the fruits of health services research, but its investment via the present commissioning process is more likely to stunt development than encourage it.¹

The phrase ‘Rothschild partly demolished’ was coined by Kogan, Korman and Henkel in their monograph on the Department’s commissioning of research.² They identify two aspects of partial demolition. The first, which had occurred over the preceding two years, is described as a ‘reduction of customer activity’. This took the form of less frequent meetings of RLGs and the dissolution of the Chief Scientist’s Research Committee. The second was the proposed return of biomedical research funds to the MRC, accompanied by greater reliance on the Council for health services research. Both developments occurred during the term of the third Chief Scientist, Professor Arthur Buller, who held office for three years from August 1978. Buller was also the driving force behind a review of all the DHSS-funded research units during this period; a process which is the subject of both detailed description and critical deconstruction by the Kogan team.³

Kogan et al. pay substantial attention to two of these initiatives: the reduction in RLG activity and the review of units. In contrast, their treatment of the return of biomedical funds lacks both detail and explanatory power. In their summative book, Kogan and Henkel argue that the MRC successfully made the case for unwinding this aspect of the Rothschild reforms; and that the failure of the PMR, which was disbanded in 1977, contributed to this outcome. However, they provide very little

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1. MH 166/1439, Arthur Buller, Chief Scientist DHSS to Philip Rogers, Permanent Secretary DHSS, 10 March 1980.
 2. Kogan et al., *Government’s Commissioning*, 49.
 3. For the process of review see Henkel and Kogan, *DHSS Funded Research Units*. For a critical deconstruction of the review process and its paradigm see Kogan, Korman and Henkel, *Government’s Commissioning of Research*, 45-53. For the summative account, see Kogan and Henkel, *Government and Research*, 96-139.

detail on circumstances between the demise of the PMR and public confirmation, in October 1980, that biomedical funds were to be returned. In the Brunel monograph of that year, Kogan et al. anticipate the return of funds and the linked proposal to place greater reliance going forward on the MRC for health services research. They are critical of these proposed measures, which they argue would lead to a diminution in the customer role for both biomedical research and HPSSR. For this publication, the authors were clearly overtaken by events, as illustrated by the insertion of an ‘as we go to press’ footnote, confirming the announcement that funds were to be returned to the MRC.¹ Neither the first edition of the Kogan and Henkel summative text (1983) nor the amended edition (2006) cast any further light on this occurrence. There thus remains considerable scope to add to the Kogan corpus by revisiting the return of funds, especially given the records now open in archives. This episode is, therefore, the primary focus of this chapter.

One of the ironies of the Buller era is that the Department had, even before his arrival, recognised the inadequacies of the system implemented in 1973. Further reorganisation followed, and a new and more integrated R&D organisation was created in 1978, reporting directly to the Chief Scientist (CS).² This transformed the Office of the Chief Scientist (OCS) from an advisory to an executive function. Thus strengthened, the OCS achieved relative longevity, gaining capacity and competence until it was reduced in 1986. The year 1978 might well thus be characterised as ‘Rothschild eventually more fully implemented’ at the DHSS. Yet it was also the year when new dynamics came into play that led to the partial demolition of Rothschild, an apparently paradoxical picture that calls for an explanation. But before proceeding further, a brief account of events between 1973 and 1978 is offered, largely summarising the more detailed account of Kogan and Henkel.

Research management 1973 to 1978

In the previous chapter, the research management system implemented in 1973 was described as a ‘dysfunctional bureaucracy’ and the factors contributing to this sub-optimal outcome were elucidated. Picking up the story in 1974, Kogan et al. recognise the difficulties encountered over the following four years, describing this

1. Kogan et al. *Government’s Commissioning*, 47 (fn.).

2. MH 166/1440.

as a period of ‘sometimes unconfident and unsystematic, sometimes too optimistic and centralist development’. Much of their empirical material is an elaboration of this theme. They agree that the 1978 re-organisation went some way towards rectifying various shortcomings in organisational design, and thus marked a new phase in the programme’s history.¹ The picture thereafter is, however, complicated by the new policy imperatives introduced by Buller, which will be discussed later.

The research management structure implemented in 1973 was notable for its plethora of committees. It was overseen by the Chief Scientist’s Research Committee (CSRC), comprised of scientific advisers drawn from the research fields of interest to the Department, with representation weighted towards epidemiology and social medicine.² The CSRC was accountable to the Planning Committee - the central forum ‘for the determination of policy and long-term planning’. Below the CSRC were two ‘intermediate’ committees: the Health Services Research Board (HSRB) and the Personal Social Services Research Group (PSSRG). These were expected to play a similar role to the CSRC within their subject areas. A Social Security Research Board was also envisaged, but never emerged. Two further committees were established as part of the new R&D organisation: the PMR and the Small Grants Committee (SGC), which would respond to small, researcher-initiated proposals. The CSRC was also expected to maintain some oversight of specialist research through liaison with groups like the Advisory Committee on Medical Computing.³

As was discussed in the previous chapter, this committee structure was purely advisory. The actual business of research management had been fragmented across the policy and specialist divisions. To overcome this balkanisation, research management, policy-leads and researchers were brought together in the RLGs. The connection back to the Chief Scientist was achieved by means of cross-representation of academic advisors from the various committees outlined above. The CSRC also attempted to steer the RLG system.⁴

1. Kogan et al., *Government’s Commissioning*, 46.

2. MH 166/1322, Stowe to Black, CSRC membership, 30 April 1973.

3. MH 166/1321, *Proposed Structure for Research and Development*, 6 March 1973.

4. Kogan and Henkel, *Government and Research*, 50-61.

It soon became apparent that this was an exceptionally cumbersome set of organisational structures. Kogan and Henkel devote much of their book to a description of the difficulties encountered in its functioning. Kogan and Korman, acting in consultancy mode, prepared an internal report on the same subject in 1975. This advised that the organisation was seen by many to be ‘over-elaborate and extensive for the work to be done’ and that it had proved difficult to find a meaningful role for advisors, especially in the case of the PMR. The various committees struggled to establish their distinctive roles. The RLG structure was incomplete and there was uncertainty about the respective roles of RLGs and committees. The new system for R&D also struggled to make its mark, finding itself ‘overwhelmed’ by the rest of the Department. Kogan and Korman suggested a simplification of the intermediate committee structure and greater reliance upon RLGs.

Of the devices created so far, the RLGs are the most promising because they are the only point at which detailed work on general policy and research policy can take place, with the main actors in the right position to play their roles.¹

Whether influenced by this advice, or whether in response to the untenable nature of the system it had created, the Department began to dismantle its committee structure by degrees. The PSSRG and the HSRB were disbanded in late 1975 and the PMR in 1977.² The CSRC was wound up in 1978. By this year, the Department had cleared the decks for a re-organisation intended to strengthen research management, with the SGC and the RLGs as the only surviving committees.

Sir Douglas Black served as Chief Scientist from 1 April 1973 until his election as president of the Royal College of Physicians in April 1977. Black’s reputation now rests primarily on his career as a clinical researcher and on his contribution to public health. He is perhaps best known today for his 1980 report on health inequalities, the attempted suppression of which became a *cause célèbre*.³ Black’s legacy as Chief Scientist must be considered in context. The organisational structures implemented in

1. MH 166/1321, *The Overall Organisation of the Chief Scientist’s Research Organisation*, Note by M. Kogan and N. Korman, July 1975.

2. Kogan and Henkel, *Government and Research*, 58-59, 65.

3. Peter Townsend and Nick Davidson (eds.), *Inequalities in Health: The Black Report* (Harmondsworth: Penguin, 1982).

1973 would have devoured much of his time (Black chaired all the major R&D committees as well as sitting on the Planning Committee and the CRB) and yet he held no executive role. The dysfunctionality of the system he inherited in 1973 was such that he was, within little more than two years, faced with the task of negotiating much of its dismantling. For HPSSR, it does seem that Black dutifully tried to make this system serve some useful purpose despite its shortcomings, and this aspect of the programme continued to grow under his leadership.¹

Black's record on biomedical research commissioning is more ambiguous. In his memoirs, he acknowledges that he is vulnerable to criticism for taking on the Chief Scientist role, given his public opposition to Rothschild, and that he might be accused of not really trying to make the system work.² Elsewhere he claims that he did his best, but that 'the thing was inoperable'.³ He claims that the root cause of the failure of the PMR was 'the inability of anyone in the department, including myself, to come up with specific commissions for the MRC which would even remotely match the £5m of transferred funds'. He then goes on to claim that this failure drove the DHSS to the 'somewhat shallow respectability' of the broad commissions. This account appears somewhat disingenuous once it is appreciated that Black was personally involved in drawing up the agreement that set broad commissions as the default mode. In his private papers he notes (with inaccurate recall of exact timing) that 'the transfer fund arrangement was happily abandoned around 1978 (my contribution being the characteristic one of showing that it didn't work)'.⁴

The verdict of Black's successor, Buller, delivered in his presence during a witness seminar in 1998, was that it was 'stretching a point' to say that Black had implemented Rothschild and that he 'avoided Rothschild in a masterly way'.⁵ These comments do not seem unreasonable in relation to biomedical research. Black had been among the architects of the commissioning arrangements designed to leave

1. Interview with Dr David Pole, London, December 2016.

2. Black, *Recollections and Reflections*, 71.

3. Sir Douglas Black in interview with Sir Gordon Wolstenhome, Oxford Brookes University Twentieth Century Medical Video Archive MSVA 023, May 1987. See also *Recollections and Reflections*, 71.

4. Wellcome Library Archives GC/45/C-1 *Papers on Rothschild Mk 1*.

5. L. A. Reynolds and E. M. Tansey. *Clinical Research in Britain 1950-1980* (London: The Wellcome Trust, 2000), 54.

power in the hands of the MRC. As such, he was unlikely to find any cause to tamper with the system, however ineffectual it might have appeared from the perspective of pro-Rothschild science policy reform.

Strengthened research management

In the interregnum between Black's departure as Chief Scientist and Buller's arrival in the following year, the Department was subject to a 'management review'. This was a joint exercise between the Civil Service Department (CSD) and the DHSS, undertaken by a team drawn from both departments. The management review was a precursor of the scrutiny programme later known as 'Rayner Reviews' and Sir Derek Rayner was involved, sending his apologies to the first meeting of the steering committee and attending the final meeting.¹ The review team decided to focus on the separate 'businesses' of the Department rather than concerning itself with cross-cutting activities, for example planning.² Looked at from this perspective, the preliminary report concluded that 'the Department had failed to establish an overall approach to its research expenditure' and unearthed widespread confusion about how the system was supposed to work.

Conflicting views, both internal and external, were expressed concerning the non-executive nature of the Chief Scientist post, his non-involvement in the determination of the research expenditure, and the emphasis on the independence of his advice. There were also doubts about whether it was sensible to attempt to bring together the broad spread of disparate forms of research, e.g. medical and social research, within the framework of a single budget; and whether the Chief Scientist could or should attempt to advise on the total range of activities.³

Based on these findings, the review team proposed a more detailed study of R&D management, as part of a suite of eight follow-on studies. The R&D study report runs to over one hundred pages and provides a measured overview of the programme and its management in 1977.⁴ The arrangements put in place in 1973 are damned with

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1. BN 152/2, minutes of the management review steering committee, 16 December 1976. See Hennessey, *Whitehall*, 590 for mention of Rayner's involvement in scrutiny reviews before 1979.
 2. BN 152/2, minutes of the management review steering committee, 24 March 1977.
 3. BN 152/2, *Management Review. Preliminary Survey Report*, 22.
 4. BN 152/9, *Management Review. Report of Study 7, Planning and Control of Research and Development*, 82-99.

faint praise, being described as ‘a first step in the difficult process of trying to relate research planning to policy priorities’. The report acknowledges that subsequent developments had improved the position, with most credit given to the RLGs, but adds that ‘this development needs to continue’. Three options for the future management of research are identified and assessed. First, continuing with the status quo. This was not recommended. The current arrangements suffered from confusion of responsibility, confusion of accountability and lack of co-ordination. Most, but not all, of those involved in research commissioning recognised these failings and thought that change was needed. The second option was to bring administrative responsibility for the HPSS, social security and biomedical research programmes together under the Chief Scientist. The third was to bring administrative authority for all R&D under the Chief Scientist. The assessment of the advantages and disadvantages of option three reads as science policy idealism weighed against civil service pragmatism. A fully integrated programme would allow the Chief Scientist to finally assume the authority envisaged by Rothschild.

It gives the CS more authority in fulfilling his responsibilities for the relevance, effectiveness and scientific merit of the Department’s R&D activities. This is particularly so in helping the customer formulate his research objectives and have them translated into projects, and in promoting the systematic evaluation of research findings and their implementation where appropriate.¹

On the downside, the report cautioned that option three might be overambitious, risked disruption and had the potential to duplicate staff effort. As in 1973, the main source of resistance to the idea of a fully integrated programme was the specialist branches: building, supplies and computing.

The three options were considered by the review steering committee in late 1977. The minutes state only that option three was considered ‘unrealistic at this stage’ and that option two was preferred.² Implementation was deferred to allow for consultation with the new Chief Scientist, due to take up office in the following summer. Buller was in favour of a more executive role for research management

1. BN 152/9, *Management Review. Report of Study*, 97.

2. BN 152/2 Minutes of the management review steering committee, 4 November 1977.

and, immediately prior to his arrival, branches were transferred from other divisions to create a new OCS with medical and administration branches.¹

The medical branch had six staff members in 1979. The administration branch included leads for general R&D policy, health services research and liaison with the MRC, and social/social security research.² Nursing and social work service officers were also assigned to support the Chief Scientist on relevant matters, but did not initially move into the OCS. The Social Science Research Unit was also moved into the OCS, initially as part of the administration branch. This unit, which had been moved back to the re-born Statistics and Research Division (S&R) when the ill-fated Planning and Research Division was broken-up, had retained its dual role as both in-house research unit and source of expert advice for the commissioning of social research. It was envisaged 'that its research functions would gradually reduce while its research management function was increased'.³ Arrangements for social security research (SSR) similarly included both in-house and commissioned research. In-house research was shared between the Social Security Statistics Branch, the Economic Adviser's Office and S&R and co-ordinated through the Social Security Research Policy Committee.⁴ The staff in S&R were also responsible for commissioning external research. These arrangements were left unchanged except that the relevant staff from S&R were transferred into the administration branch of the OCS. The Operational Research Unit did not become part of OCS, remaining in the Establishments and Personnel Division where it had been located when the Planning and Research Division was dismantled.

The executive OCS represented a significant advance on earlier structures in integration and capacity for research commissioning. It brought HPSSR, social security research and biomedical research into a single organisation for research

1. MH 166/1440, DMB 16(78).

2. Imperial Calendar and Civil Service List, 1979.

3. BN 9/159, *Management Review. Report of Study 7, Planning and Control of Research and Development*, 99

4. The Social Security Research Policy Committee was another creation of the early 1970s reorganisation. It had no reporting line to the Chief Scientist's Research Committee – an example of the autonomy of the 'specialist branches' in R&D matters. Kogan and Henkel mention this committee only once, and in passing (p.50). See also BN 82/43, *Organisational arrangements for the social security research programme*, November 1976.

management. In August 1978, Buller took command of a division that was better structured to drive forward the programme than any previous set of organisational arrangements. This looked to be ‘Rothschild more fully implemented’.

Review of Rothschild

Early in 1978, Dr David Owen wrote to Prime Minister Callaghan about the Rothschild reforms. Owen was Foreign Secretary at the time, but had been Minister of State for Health between 1974 and 1976. He commended the Rothschild reforms and said that during his time at the DHSS he had done his best to get these implemented ‘but it was clear that there was a great deal of resistance’. He reported that Lord Victor Rothschild would like to review the situation and find out exactly how *Framework for Government Research and Development* had been implemented. Owen was supportive of this suggestion as ‘without some further stimulus the Research Councils will, I fear, lapse back into old habits’.¹

The Cabinet Secretary, John Hunt, sought the opinion of the CPRS. Rothschild’s successor as head of CPRS, Kenneth Berrill, reminded him that the government had, some two years previously, given a commitment to a ‘review of Rothschild’. This commitment had been made to the Select Committee on Science and Technology and some preparatory work had already been initiated. He noted that ‘the issue is likely to become a live one quite early because the new Secretary of the Medical Research Council (Dr J. L. Gowans) is making a public issue of it and stirred the pot quite nicely in a recent lecture’. Berrill saw a role for the CPRS in such a study but was against the idea that this might be undertaken by Rothschild himself, predicting a major outcry: ‘the academic science world has never forgiven him, and they would regard his appointment as provocative and a case of someone being judge and jury’.²

The review was undertaken during the second half of 1978 and led by Professor J. M. Ashworth, Chief Scientist at CPRS. Ashworth invited departments to comment on drafts. The DHSS took advantage of this, offering re-drafted paragraphs, which include the following statements.

1. CAB 164/1487, Owen to PM, 7 February 1978.

2. CAB 164/1487, Berrill to Hunt 10 February 1978, memo by Hunt 13 February 1978.

The special feature of the biomedical work carried out for the Council's principal customers, the Health Departments, is that the latter have had to depend upon the council itself for advice needed to formulate precise requirements in the biomedical field. The DHSS, for its part, has had to build up the necessary expertise to discharge its own separate functions for developing health and social services research. At a time of strict constraints on administrative and staff costs, it has not felt justified in also developing expertise for a full commissioning role in the biomedical area.

It is anomalous to give a Department the responsibility for a specific part of a Research Council's expenditure if the Department does not, and cannot reasonably, develop the expertise to exercise that responsibility fully. This problem arises particularly over the commissions placed by the Health Departments with the MRC and progress made under the new administrative arrangements is to be reviewed in the autumn of 1979.¹

In a covering note, Permanent Secretary Patrick Nairne noted that this drafting could be 'regarded as amendments for the purpose either of providing a more accurate and balanced text or of giving reasonable room for manoeuvre in the review of the DHSS/MRC field next year'.² The amended text was included without alteration in a White Paper, published in March 1979.³

This document concluded that although it was still too early to make a definitive judgement on the Rothschild reforms 'they appear to have strengthened the government's R&D machinery'. The government press release trumpeted that 'present system of commissioning applied research was working well'. The Lord Privy Seal briefed the Prime Minister that 'essentially it concludes that the customer-contractor arrangements are working reasonably well and that no major changes are necessary'.⁴ The White Paper included no specific proposals for the commissioning of health research. The simplification of commissioning arrangements for biomedical research in 1978 was portrayed as a positive development. The benefits of 'administrative simplification' were noted, together with a 'more practicable means of a dialogue' between the MRC and the health departments.⁵ The White Paper thus offered no grounds for any immediate change

1. CAB 164/1487, *DHSS Amendments to Annex A STP78(14)*.

2. CAB 164/1487, Nairne to Hunt, 20 November 1978.

3. Cmnd. 7499. *Review of the Framework for Government Research and Development (Cmnd. 5046)*. London: HMSO, 1979, 12-13, 32-35.

4. CAB 164/1487, LPS to PM 28 February 1979.

5. Cmnd. 7499 Appendix 1(E), para 11.

to the arrangements between the MRC and the DHSS. However, it did include negative statements about the ability of the DHSS to commission biomedical research. In retrospect, these served as ‘ sleeper ’ statements as, although they attracted little attention at the time, they were later invoked to justify a return of funds to the MRC. The White Paper also included a commitment to a review of the DHSS/MRC relationship in the second half of 1979.

New leadership

By early 1979, the DHSS appeared well positioned to consolidate its post Rothschild arrangements. It had made substantial changes to the administrative structures implemented in 1973, creating an executive OCS for the first time. A national review of the machinery of government for R&D had concluded that current arrangements were working well and that no major change was needed. Nevertheless, within less than two years, the DHSS had not only agreed to return funds for biomedical research to the MRC but was also proposing to add to these funds from its own vote so that the Council could develop its activities in HSR. To understand this turnaround, it is necessary to look at the role played by three key individuals who represented a new generation of leadership in the MRC/DHSS relationship. Sir Patrick Nairne (1921-2013) took over from Sir Philip Rogers as Permanent Secretary in 1975. Dr James L. Gowans (b. 1924) succeeded Sir John Gray as MRC Secretary in 1977. Sir Douglas Black had left the DHSS in April 1977 and was succeeded by Arthur Buller in August 1978. As an aside, the midwife of the reorganisation of R&D management, Kenneth Stowe, had left the Department in 1973 and so did not see the fruits of his labours. Stowe did not return to the DHSS until 1981, when he succeeded Nairne as Permanent Secretary. The background and outlook of these new leaders are now briefly considered to provide context for a discussion of events between 1978 and 1981.

James Gowans

James Gowans followed a career as a transplantation immunologist before becoming MRC Secretary in April 1977. He arrived at the MRC on a mission: to reverse the transfer of biomedical research funds. In Nairne’s words, ‘ he made clear

that he wanted the transferred money back and he was very determined to get it'.¹ Gowans wrote to the Secretary of State for Social Services soon after his appointment to argue that the system for the commissioning of biomedical research was not working and that funds should be returned to the science vote. At the time, the Department was moving towards dismantling the Panel for Medical Research and the replacement of broad commissions with the annual statement of needs and priorities (both implemented from April 1978). The Secretary of State was thus, with some justification, able to argue that such a move would be premature. However, he gave a commitment to review the system in autumn 1979.² Gowans made no secret of his ambition to secure the return of funds, as evidenced by Birrell's comment about him 'stirring the pot' in public. At the DHSS, he quickly caused offence to research administration. Brian Rayner, head of one of the research branches in C&R, wrote a memorandum of complaint to Nairne reporting that Gowans had referred 'contemptuously' to 'bureaucratic pirouetting' at his first meeting of the CSRC. Gowans was accused of 'arrogance and insensitivity' and of 'a certain unworldliness' in his assumption that he only had to go to Ministers or to the Select Committee on Science and Technology and 'say that the MRC are so obviously best placed to control biomedical research that the sensible thing to do would be to hand all the money back to the Council'. Rayner believed this would prove a counter-productive strategy. This proved to be as grave a misjudgement as was his assessment of Gowans as unworldly.³

Arthur Buller

Arthur Buller was medically qualified but had moved into laboratory research at an early stage in his career, having concluded that he lacked aptitude for clinical practice and was more interested in science.⁴ He pursued a career in laboratory-based research, specialising in nerves and muscles, and was Professor of Physiology at the University of Bristol when seconded to the Department as Chief Scientist.

1. Reynolds and Tansey, 51.

2. MH 166/1438, *Review of the revised arrangements for the commissioning of biomedical research by the health departments*. 1979. This was the origin of the commitment to review included in the White Paper.

3. MH 166/1437, Rayner to Nairne, 9 August 1977.

4. Professor Arthur Buller in interview with Dr Max Blythe, Oxford Brookes University Twentieth Century Medical Video Archive MSVA 117/118 Vol. 1, Oxford, 20 November 1995.

Buller did not have prior experience in either the management of research commissioning (unlike Cohen) or clinical research (unlike Black). His clinical experience was also outdated, as he had left practice at an early stage in his career. He would not, therefore, have been in touch with the situation in the NHS. He was, however, a member of the MRC Council and chaired its Neurobiology and Mental Health Board. He moved without interruption from membership of the Council as a scientist to membership as DHSS Chief Scientist, although he resigned his Board chair once appointed to the latter role.¹ Holland says that a more experienced clinical researcher was also considered for the post but passed over in favour of Buller because of the latter's greater administrative experience. However, he does not appear entirely convinced by this explanation.² It seems more likely that Buller's main qualifications for the post were that he was an MRC loyalist with credentials in laboratory-based medical research.

This supposition is powerfully confirmed by Buller's personal account of his appointment, given in an interview recorded in 1995.³ Douglas Black was elected President of the Royal College of Physicians (RCP) in April 1977. The convention was that the new President took up office on the same day as his or her election, so Black was obliged to resign as Chief Scientist with immediate effect. With overstated self-deprecation, Buller initially explains his appointment by referring to these rather unusual circumstances.

Obviously everyone was caught napping as they looked for someone who was doing nothing particularly important at that time. Buller's name immediately sprang to their attention. I wasn't doing anything of any importance to anybody but I was available.

As Buller was Dean of the medical school in Bristol as well as Professor of Physiology at the time, this is a rather implausible explanation. When pressed further by the interviewer, Max Blythe, on where his nomination came from, he replies: 'I've no idea. It came, I'm sure, via the MRC because it's undoubtedly true that the relationship between the Department and the MRC at that time was pretty poor'. He then gives an account of how an initial approach was made to him.

1. MRC Annual Reports 1975/6 to 1977/8.

2. Holland, *Improving Health Services*, 65-66.

3. Professor Arthur Buller in interview with Dr Max Blythe, Vol. 3.

There was an MRC dinner to say goodbye to the Duke of Northumberland who had been the Chairman of the MRC at Syon House. And as a Council member I was invited, of course, as we all were and we had a break during dinner and we were wandering round the garden...and it was Henry Yellowlees, who was then the CMO, who actually approached me and said would I be interested in following Douglas as Chief Scientist. It was bolt from the blue. I had not expected it and I took some time to consider it but effectively everyone that I spoke to, not least Alec Merrison who was my Vice-Chancellor said I should have a go but he had a degree of self-interest because he had opposed the Rothschild arrangements in the beginning and knew that I was, as it were, a believer in the MRC and felt that the transfer of these funds back from the Department to DES and hence to MRC could be achieved and in a sense that came about.¹

It is difficult to imagine a more explicit account of elite patronage in operation. Buller goes on to describe lunch with Patrick Nairne as the next stage of the selection process.

I think that Pat Nairne thought that we could do business...I'm sure that these clever men don't see me as any threat so that, you know, it's possible for them to say 'yes, I think I could work with Arthur Buller'. Presumably when they are looking for colleagues they don't want somebody who is going to run an opposite course to that which they envisage.

In the same vein, he later describes himself as a 'go-between' for Nairne and Gowans.

I had the great advantage of being able to see Jim Gowans more or less whenever I wanted and this was my scientific touchpole and I had the advantage of having the ear of the Permanent Secretary Pat Nairne and that was my touchpole in the Dept. So I was acting as a go-between and negotiating what was acceptable to one and what was acceptable to another. There was also Ashworth at that time at the Cabinet Office and it was the time when the review of Rothschild came out and he consulted me over some wording over how the Department was getting on.

This passage indicates that Buller was the author of the amended text placed in the 'review of Rothschild' White Paper. He is frank about his views on Douglas Black's stewardship during this interview. He asserts that Black 'didn't do anything to make it or break it' and that his preference was for an advisory role. On this point, he is

1. Merrison was also Chairman of the Royal Commission on the NHS, which reported in 1979. There is no sign that the view of the Commission, including its recommendation for an Institute of Health Services Research, had any significant influence over Buller or the Department. The almost complete absence of any reference to this recommendation in the OCS files is noteworthy.

rather scathing about the notion that civil servants might ever feel the need to consult a purely advisory Chief Scientist.

I mean the thing is run, properly, by ministers and civil servants, in my day, were there to help ministers with their thoughts on matters but decisions rest with ministers and to think that these very senior highly intellectual Oxbridge double firsts in History, the Greats – you name it - were going to come in and ask Douglas a scientific question was nonsensical.

Buller wanted the Chief Scientist to have an executive role and the OCS was reorganised to support such a role under his tenure, as discussed. He is, despite this reorganisation, dismissive of the organisation created in 1978.

It was a few individuals, capable in their own way, but a few doctors, nurses and a couple of social scientists. It wasn't a meaningful organisation at all.

Elsewhere in the interview, he asserts that the Department was 'very weak in its scientific liaison, collaboration, and initiation of research' and is adamant that he did not have the necessary resources to discharge the role expected of the Chief Scientist.

Buller says nothing at all in this long interview about his responsibilities for HPSSR. The detailed account by Henkel and Kogan of the Chief Scientist's process of review gives an insight into his attitudes and approach. Buller brought to the process expectations of scientific method derived from laboratory research. He sought to separate as far as possible the question of scientific merit from that of policy relevance. Henkel and Kogan summarise his views as follows.

A predominantly internalist view of science is asserted in the basic principle of the departmental review of units that science and relevance must be separately determined...just as scientific judgements ought not to be contaminated by the views of policy makers, so policy decisions should not be infiltrated by scientists. Policy makers too are to assert their proper role.¹

Buller's view of 'good science' had been formed in the controlled world of the laboratory. But the science he was assessing was undertaken in the messy real world and in the multidisciplinary overlap between medical and social research. A

1. Henkel and Kogan, *DHSS Funded Research Units*, 69.

fundamental clash of epistemologies was played out in the encounters between the Chief Scientist and the research community.

Patrick Nairne

Nairne's position can be dealt with comparatively briefly. Buller maintains that, from his arrival at the DHSS onwards, Nairne shared his view that arrangements for R&D management were inadequate. This, he says, is because Nairne had come from the Ministry of Defence, where the Chief Scientist was powerful, and could see the impossible challenge facing the DHSS in creating a similarly effective function.¹ There is no evidence to support this contention. Nairne's attitude towards R&D appears to have been pragmatic. In witness testimony given in 1998, he stresses the difficulties of adequately reporting on research procured through the broad commissions. This left the Department exposed to criticism on grounds of accountability.² Ultimately, and in the face of broad opposition from within the Department, Nairne threw his weight behind the return of funds. The evidence suggests that this course of action was prompted by pragmatism rather than conviction.

Difficulties of funding and accountability

The system for commissioning biomedical research introduced in 1973 soon ran into difficulties. The most obvious of these was the failure of the PMR, which has previously been discussed. Kogan et al. provide an account of the panel's difficulties and eventual disbanding, which need not be repeated here.³ These difficulties arose because the PMR was, from the outset, assigned no meaningful role within the MRC/DHSS agreement.⁴ Difficulties also arose in honouring the agreement that the DHSS would protect the MRC commission from short-term fluctuations in funding. The annual report of the MRC for 1976/7 states that the DHSS had imposed a ten percent reduction on the MRC contract for the following financial year. This, it was said, would 'affect both commissioned and other research supported by the

1. Video interview, Arthur Buller, 1995, vol. 3.

2. Reynolds and Tansey, *Clinical Research*, 50-52.

3. Kogan and Henkel, *Management and Research*, 62-71; Kogan et al., *Government's Commissioning*, 20.

4. See chapter 8.

Council'.¹ The overall departmental R&D budget had been subject to a £2.5 million cut in that year and this reduction had been allocated pro-rata to the various budget lines. For commissioned biomedical research, this meant a cut from £8.74 million to £7.86 million. This was not communicated to the MRC until October 1976, which was rather late for planning purposes. However, during financial year 1977/8 the allocation was uplifted for inflation and other technical adjustments to £10 million. There was, then, no reduction in cash terms in the budget, although the MRC might have argued that there was a real-terms reduction given high levels of inflation. In the event, the MRC predicted an outturn of £8.92 million for 1977/8, over a million pounds less than the final allocation. Not surprisingly, research management found it illogical that the MRC was predicting a final spend ten percent below contract value 'whilst still complaining vociferously about the 'cut' on every possible occasion'.² This was an awkward episode brought about by a wider crisis in public finances, which was eventually resolved without the MRC needing to curtail any of its activities. Despite this, the MRC returned to it subsequently as a source of grievance and as an illustration of how the Council had been left vulnerable to sudden cuts in the commissioning budget. It was mentioned in the 1979 White Paper as having created considerable difficulty and as leaving the MRC with a 'feeling of insecurity'.³

A further issue, which was more of a problem for the health departments than the MRC, was that of accountability. The original agreement envisaged that the health departments would advance funds for biomedical research to the MRC as 'grant-in-aid'. This was the basis on which the Council received the rest of its funding from the Department of Education and Science (DES). Its advantages were that any underspend could be carried forward by the grantee into the following financial year, rather than being returned to Treasury. Funding through grant-in-aid was also subject to less stringent audit requirements. Treasury guidance stated that 'the extent to which use is made of the system of grants in aid should be as restricted as possible'.⁴ The Treasury had not agreed to the use of the system for commissioned biomedical

1. Medical Research Council. *Annual Report 1976/7*. London: MRC, 1977, 4.

2. MH 166/1438, *MRC Commission Funds 1977/8 and 1978/9*, 18 June 1978.

3. Cmnd. 7499, para. 37.

4. MH 166/1438, *Commissioned Biomedical Research*, Paget to Foster, 10 October 1979.

research, not least because the 1972 White Paper had specifically stated that grant-in-aid would be inappropriate.¹ Instead the health departments were fully accountable for expenditure under the relevant vote sub-head. To discharge this accountability, the departments needed the MRC to provide it with detailed accounts of how the funds had been used, including project accounting.²

Arrangements for commissioned research were reviewed by the government's auditor, the Comptroller and Auditor General (CAG), in 1979.³ The CAG reported that the MRC received £41.8 million in funding from the science budget of the DES plus a further £10.4 million from other government departments for commissioned research, of which £10.1 million came from the health departments. The MRC had undertaken 46 specific commissions, most of which had been commissioned by the Health and Safety Executive. Only two, with a combined value of £110,000, had been commissioned by the health departments, an indication of the extent to which broad commissions had been treated as the default mode. The MRC, it was reported, took the view that the customer-contractor principle was rarely appropriate for the biomedical research of interest to the health departments and 'that by transferring to the Departments a much larger sum than could be used on such projects, the Government intended that the customer/contractor principle be more broadly interpreted'. The CAG observed that the arrangements in place appeared to leave control more in the hands of the MRC as contractor than in the hands of the customer. In view of this, they questioned whether these arrangements could be said to comply with the customer/contractor principle. The MRC argued that it did comply, on the basis that the White Paper recognised that 'many of the ideas for research and development to meet the customer's needs came from the scientific staff in the contractor's organisation'. This selective reading was hardly consistent with the aims of the Rothschild reforms.

In contrast to the specific commissions, the CAG found that the MRC was undertaking 105 broad commissions, costing £16 million, of which £10 million came from the health departments. In other words, the 'commissioned' research was little more than a block grant towards broad programmes of work. Separating out the

1. Cmnd. 5046, para. 52.

2. MH 166/1438, Paget to Caff, 24 October 1979.

3. Comptroller and Auditor General, Report (1979), xiv-xix.

departments' contribution and accounting for it on a project-by-project basis was thus only possible through joint product costing, which required somewhat arbitrary cost allocation. This was not an activity for which the MRC demonstrated any enthusiasm. The CAG reported that the MRC had, in fact, introduced a project costing system in 1976, which would have reduced the difficulty of this task. However, this had not been applied to the commissioned research. The MRC's explanation for this was that 'at the project level the activity was...often poorly defined and did not justify the expense of a precise system of accounting'. The move away from broad commissions to an annual statement of needs and priorities had further increased the difficulty of project accounting. When challenged on how, in this situation, the health departments were supposed to satisfy themselves as to the realisation of objectives and the commensurate nature of costs, the departments responded with an answer that echoed MRC arguments. The CAG reported as follows.

They informed me that an important aspect of biomedical research was that, although primary objectives are relatively easy to define, it was rarely possible to define in advance the course of a research programme in the complex biological process. Consequently, it was frequently difficult to make precise forecast of costs. Because ignorance of the physiology and pathology of human systems was still profound in many parts of the field, it was impossible to forecast when "bright ideas" and practical results might emerge from a piece of work and when a line of enquiry had been exhausted.

The picture that emerges from the CAG report is one of two organisations colluding to ensure that the customer/contractor principle was observed in form but not in substance. This was the logical outcome of the agreement reached between the health departments and the MRC in 1973. It was this picture, revealed by the CAG to parliamentary scrutiny for the first time, which attracted the attention of the Committee of Public Accounts.

The MRC and Health Services Research

Arthur Buller claims that the decision to scale back research commissioning at the DHSS was taken after the election of a conservative government in May 1979.

The administration then changed, and it was cut, cut, cut and there was no question of building anything up. It was never going to happen, so I found myself thrown into a situation of saying if we're not going to build

up let's get out of it almost. You haven't got the competence here to deal with the commitment to the MRC, which was to commission biomedical research. Let's try and negotiate a new concordat, return the money and get the best terms we can.¹

The election undoubtedly represented a turning point, but this account obfuscates the extent to which Buller had argued for a progressive withdrawal from research commissioning from the moment he was appointed. In making this argument, Buller did not initially focus on biomedical research but instead on health services research.

In July 1978, even before his term of office formally began, Buller submitted a paper to the DHSS management board on the reorganisation of the Chief Scientist's Organisation.² The paper confirmed that he was supportive of the move to consolidate administrative responsibility for biomedical research, HPSSR and social security research under the authority of the Chief Scientist. Also, that he was content with a purely advisory role when it came to computing, building, supplies and equipment research. Having endorsed the review proposals to centralise research management in a strengthened OCS, the paper nevertheless goes on to argue that commissioning arrangements, 'even under an administrative CS' would remain unsatisfactory, because the load placed on those working in research management was 'diffuse and excessive'. Buller saw no prospect of any rapid change in this situation because of poor career prospects in research management and an under-supply of suitable staff. Given this gloomy prognosis, he recommended that

The Medical Research Council should be encouraged to accept the research management role for those health and health service research programmes managed by DHSS.

In September, Buller visited the MRC where he shared his opinion that much of the research supported by the DHSS was of 'scandalously low quality' and that 'moreover, the Department did not have the research capability to cope with it'. In view of this, he asked whether the MRC would be prepared to broaden its activities to embrace health services research (HSR) if additional funding for this purpose was forthcoming from the health departments. He foresaw the gradual running down of 'soft' DHSS supported work and a gradual transition to the work being taken on by

1 Buller, video interview, 1995, vol. 3.

2. MH 166/1440 *Proposals for Re-organisation of the Chief Scientists Organisation*, 11 July 1978.

the research councils. The MRC would undertake HSR with the SSRC also taking on some social research.¹

Buller stopped short of proposing a return of funds to the MRC initially but in his July paper he proposed that, as a first stage in ‘wooing the MRC’ to take on a greater role in HSR, the transferred funds should be made a first call on the R&D budget (i.e. protected from any general budget cuts) and rejected any clear-cut distinction between HSR and biomedical research. He believed that the MRC was unquestionably the organisation best-placed to pursue research across the whole spectrum of health-related research (whilst allowing that the SSRC would have a smaller role in personal social services research). He proposed that, as the first step towards a greater role, the MRC should be commissioned to undertake HSR in several fields where the DHSS programme was acknowledged to be under-powered: acute care, dental health and safety of medicines. Such commissions would be placed under the same agreements as those pertaining to biomedical research. This proposal caused some disquiet for senior administrative staff in OCS, who insisted that policy was ‘to reduce and not to abdicate entirely, departmental responsibility’ and that ‘the policy would only work if the Research Councils were willing to accept the Department’s role in defining the needs for research’.²

Nairne reported on these developments to the Secretary of State, seeking his ‘general blessing’ for the direction of policy. His memorandum recommended the placing of a small number of HSR commissions with the MRC, but emphasized the cautious pace envisaged. He wanted any such commissions to be subject to three conditions. First that the MRC (and the SSRC in due course) would accept ‘the Department’s rights as a customer’. Second that the research councils would be expected to participate in the RLGs. And third that ‘the Department’s accountability responsibilities will be safeguarded’.³ During the second half of 1978, policy was worked up on this basis and a proposal to commit £0.5 million from the HPSSR budget to MRC emerged. At this stage, this represented little more than further implementation of the customer/contractor principle, albeit working within the

1. FD 9/4545, *Notes of a meeting between Dr Buller, Dr Owen and Dr Norton on 6 September 1978.*

2. MH 166/1440, Management Board meeting 11 July 1978 – minutes.

3. MH 166/1440, Nairne to SoS (undated).

idiosyncratic interpretation of this applied to biomedical research. More significantly, two assertions became embedded in the policy discourse at this point. The first was that ‘there is no logical dividing point between biomedical and health services research’. The second was that there was an unbridgeable gap between the Department’s aspirations for HPSSR and its ability to manage commissioning.

The policy proposal was circulated for comment within the policy divisions. The response was, from Buller’s perspective, ‘disappointing...but not uniformly discouraging’. Only the dental division was supportive. Other divisions expressed reservations about the MRC being an appropriate body to undertake HSR and observed that present arrangements were satisfactory. Two of the divisions commented that they did not have the resources to survey the field and identify a comprehensive list of priorities. They were unable to meet the expectations of their RLGs in this respect and so did not welcome the prospect of having to deal with the MRC. Regardless of the tenor of these internal responses, Buller took the step of writing to RLG Chairmen, external advisers and other external stakeholders.¹ The first part of this letter explains how as Chief Scientist he has been given full administrative authority over the main streams of research and the OCS expanded ‘to provide direct multi-disciplinary support for me in the exercise of my responsibilities’. He also confirms a continuing, central role for the RLGs in planning and commissioning HPSSR. Having described his strengthened organisation, he then turns without any apparent awareness of ‘mixed message’ to the ‘shortage of research staff’ in the Department. He reports that he has been authorised to explore an arrangement with the MRC ‘under which the Council would manage health services research on behalf of the Department and with funds provided by the Department’. He notes that this proposal is at an early stage but that ‘if all went well I envisage that in the long run it might be possible for the DHSS to have most of its research needs met through the Research Councils’.

This letter provoked alarmed and critical responses. Professor J. C. Hayward, Chair of the Nursing RLG, pointed out that the Department had developed real expertise on nursing research over the past decade and that this would be jeopardized by a transfer to ‘a body lacking in the first-hand knowledge and experience in the

1. MH 166/1440, letter from Buller, 24 October 1978

management of such research'. A.J. Culyer, Reader in Economics at the University of York, pointed out that the MRC had no interest or expertise in social research and that 'any attempt to turn the MRC into a multi-disciplinary kind of Council would not only change its present character (and purpose) but also probably undermine its authority'. Also from York, the economist Professor Alan Williams wrote that a transfer of HSR responsibilities to the MRC would be 'a most retrograde step' and stressed the rationale for the Department retaining independent sponsorship of HPSSR. The Vice-chancellor of the University of Kent, home to one of the designated units, wrote that 'it looks to us as if what is being suggested would quickly ruin what is being achieved here'. Professor E.G. Knox, head of the Department of Social Medicine at the University of Birmingham, noted the mismatch between the strengthening of the OCS and Buller's desire to pass responsibility for research management to the research councils over time.

I am very much opposed to abandoning the Rothschild principle at a time when it has never really been tried, and at a time – probably the first time – when an organisation has been set up which might possibly make it work. If the new organisation abandons health services research as a central DHSS function, then it is no better than the organisation which it replaced – indeed, worse, since its actions are intentional rather than simply by default.¹

Buller appears to have been taken aback by the strength of hostile reaction, claiming that his letter was poorly drafted and had been misunderstood and inviting various correspondents for lunch and 'long chats' so that he could explain his position properly. He seems to have assumed that everyone in the academic community would share his views and to have been surprised when this turned out not to be the case. This suggests that he had not appreciated the extent to which the programme's patronage had created its own elite, unit directors and other major figures in the newer field of HPSSR and allied research. This elite represented a counter-balance to the more established medical research elite to which Buller was attuned, and was vocal in support of its interests.

To place this episode within the historiography, we might also note that it is the proposal to transfer HSR responsibilities to the MRC that is the primary focus of

1. MH 166/1440, Knox to Buller 16 October 1978 (refers to Buller's letter having been dated 29 September).

Kogan et al. in their discussion of ‘Rothschild partly demolished’. Their monograph includes a sustained critique of the proposed policy.¹ This amounts to a development of the various arguments made by Buller’s correspondents, given weight by their grounding in empirical study of the commissioning process. For reasons of timing, the return of biomedical funds to the MRC is discussed in more provisional terms, although many of the arguments made about the ability of the Council to respond to customer’s needs are equally applicable.

The return of biomedical research funding

The White Paper reviewing the working of Rothschild was published in March 1979 and included a commitment to review of the MRC/DHSS relationship. In the same month, Gowans, Nairne and Buller, together with representatives of the DES and SHHD, appeared before the Committee of Public Accounts, who wished to investigate the findings of the CAG.² Gowans’ performance at this committee is credited by both Kogan and Nairne as having been pivotal in persuading the PAC and the health departments that the Rothschild arrangements should be fundamentally recast for biomedical research.³ The arguments used by Gowans are consistent with those used by the MRC to oppose the *Framework for Government Research* in 1972. These arguments were themselves, as has previously been noted, highly consistent with those used in the Cohen Report two decades earlier. Gowans began with an exposition of the ‘peculiar difficulties of biomedical research’. The MRC, he claimed, had ‘under its surveillance all the work right from the basic to the applied end’. Within this continuum, work was ‘so interwoven that it is very difficult to pick out projects’. According to Gowans, the nature of medical research was such that ‘you have to invest in good ideas and good people’ and leave them with time for relevant discoveries to emerge. Accordingly, the whole notion that objectives could be defined closely enough to place specific commissions was flawed.

1. Kogan et al., *Government’s Commissioning*, 47-51

2. Committee of Public Accounts. *Session 1978-79. Minutes of Evidence, Wednesday 14 March 1979*. House of Commons. London: HMSO, 1979.

3. Reynolds and Tansey, *Clinical Research*, 52. Kogan and Henkel, *Government and Research*, 65-67.

The work is of a kind where you cannot place a specific commission to discover the cause of schizophrenia; what you are waiting for is the next good idea and the next good man, and the prime thing is to invest in that.

This was an unapologetic defence of the approach that Rothschild had castigated as ‘scientific roulette’. Gowans went on to repeat the argument that the government must have intended a loose interpretation of the customer/contractor principle when it went ahead and transferred funds because it did so in the face of MRC representations in 1972. This amounted to an *ex post* revisiting of government intentions for which there is no supporting evidence. He also repeated the argument that the MRC was strongly positioned to assess societal needs through the involvement of scientists and doctors on its boards. Finally, he argued that the freedom of the DHSS to use other contractors for biomedical research, if it so decided, left the MRC in a vulnerable position. These arguments had all been made before, but they were, presumably, new to members of the committee and Gowans’ delivery was, by all reports, persuasive. Nairne’s response was broadly positive in its assessment of biomedical research commissioning and he took the opportunity to put the record straight on the alleged ‘cuts’ in funding. He concluded with a renewed commitment to proceed with the promised review ‘to be sure that the basic objectives are being met in terms of scientific and financial accountability and is not excessively burdensome in bureaucratic terms’. This was, to be specific, to be a review of the simplified arrangements for biomedical research commissioning, introduced in April 1978, as promised to Gowans by the Secretary of State.

The possibility that biomedical funds might be returned to the MRC was included within the scope of the review from the outset. This was talked down by officials when the review began in March but became an altogether more serious prospect once the PAC reported in September. The Committee found that the Department ‘had largely ceded to the MRC the customer’s normal responsibility for defining the objectives of commissioned research and for controlling the allocation of resources to it’. In the committee’s opinion, this represented a blurring of accountability. Its members had been persuaded by Gowans’ arguments that the health departments were incapable of developing competence in the commissioning of biomedical research. Their conclusion was unequivocal.

We recommend that these considerations be taken into account in the forthcoming review of the commissioning arrangements for biomedical

research; and we trust that the Government will give full weight to the possibility of abandoning the formal commissioning arrangements in this field if they add nothing of substance to the guidance and advice which the Health Departments could, in any event, continue to provide through the improved arrangements for consultation and liaison with the MRC.¹

Within DHSS policy divisions, the review process revealed unanimous opposition to any return of funds. A summary of opinions concluded that ‘without the power of the purse persuasion would be the only means open to the health departments to influence the outcome of the competition for resources between those scientists pursuing basic biological studies and those seeking relatively short-term solutions leading to improvements on patient care’. The internal consensus was that it was still too early to suggest a retreat from Rothschild. The new arrangements introduced in 1978 needed time to mature and another review might be undertaken after 3 or 4 years.²

Near unanimous internal opposition presented a dilemma for Nairne. He was clearly troubled by the accountability issue. He could also see that the undertakings given to the MRC to maintain funding levels (which he had repeated at the PAC) could become problematical for the Department in times of financial stringency.³ The national science budget had been eroded by high inflation since mid-decade. With the recent election of a Conservative government committed to public expenditure reductions, acceleration in the rate of reduction was a real prospect.⁴ In these circumstances, protection of the commissioned funds would mean disproportionate cuts to the rest of the R&D budget. But, with memories of the ten percent ‘cut’ still raw, not to honour the undertaking given would have provoked renewed clamour from the MRC.

As a conceivable way of mitigating the accountability problem, Nairne returned to the idea of making ‘grants-in-aid’ but this was abandoned once it was realised that it would not adequately rectify the accountability deficit. He then revived the idea of the MRC taking on a role in HPSSR, suggesting that a promise to return part of the

1. Committee of Public Accounts. *Session 1978-79. First Report of the Committee of Public Accounts. HC173. House of Commons* (London: HMSO, 1979), para. 52.

2. MH 166/1438, *Review of Revised Arrangements: Summary*.

3. MH 166/1438, Nairne to Yellowlees, Buller, and others, 8 October 1979.

4. Wilkie, *British Science and Politics*, 88-97.

funds could be used as a ‘bargaining chip’ in such discussions.¹ This idea then developed into a proposal to return all the transferred funds bar £2 million, which would be held back for commissioning in the ‘middle ground’ between BMR and HSR. At this point, Buller sent a memorandum to Nairne arguing that the biomedical research funds should be returned in full, but be linked to an expectation that the MRC would take a more active role in HSR.² For biomedical research, Buller restated his argument that the Department was incapable of developing the necessary competencies and invoked the criticism of the PAC. For HPSSR, he returned to his previous argument that over the medium term ‘it would benefit the Department’s HPSS programme to establish clearer links with the research councils’. He argued that, even without the power of the purse, sufficient influence could be obtained through new liaison mechanisms. His specific proposal was that negotiations should begin to develop a new concordat with the MRC, using the prospect of the return of biomedical funds to obtain a commitment to HPSSR. He also anticipated a run-down of DHSS-funded units to release more funds for specific commissions with the MRC, a view expressed in advance of his programme of unit visits. On the same day that Buller wrote this letter, he and Nairne, together with a small number of other senior medical and administrative staff, met with the Secretary of State and Minister for Health to consider the courses of action open to the Department. Nairne offered three options. The first was continuation of the status quo. This was deemed ‘unacceptable’. The second was to offer to return all or part of the biomedical funds, subject to agreement over new liaison mechanisms and the MRC taking on more of a role in HPSSR. The third was essentially a more tentative version of the second. Ministers opted for the second option.³

Once this decision was taken, the DHSS began the process of notification and consultation with other government departments. The devolved health departments were content with the proposals. SHHD elected to deal directly with the MRC on biomedical research in future and added that, as satisfactory arrangements for commissioning health services research existed in Scotland, it did not wish to

1. MH 166/1438, Nairne to Spencer, 31 October 1979.

2. MH 166/1438, Buller to Nairne, 22 November 1979

3. MH 166/1438, *Notes of a meeting on commissioning of biomedical research*, 22 November 1979.

participate in any discussion with the Council on this matter.¹ The Department also needed the consent of the DES, the Cabinet Office, Treasury and the CSD, which presented greater difficulty. The Permanent Secretary of the DES, the department responsible for the research councils, pointed out that any return of funds would necessarily be to the science vote, from whence they had originally come, rather than to the MRC directly. Any returned funds would be subject to the normal procedures for allocation of that vote, which might or might not direct them to the MRC. He added, in a revealing comment, that ‘I doubt very much whether health services research is an appropriate responsibility for the science vote’.² The CSD raised concerns about the ‘hiving-off’ of health services research to the MRC, which originated in wider policy concerns, and repeated the view that this might not be a suitable activity for funding from the science vote.³ To overcome this objection, Nairne pointed out that the commissioning of HSR research from the MRC would be no different from the long-established practice of commissioning such research from universities or other contractors. This was, of course, factually correct as the Department had commissioned some research from MRC units since the 1960s. Nairne’s position was not entirely consistent with Buller’s line that the future *management* of HPSSR should be passed to the research councils. However, Buller was not involved in this part of the discussion, and so this inconsistency was not visible. Treasury questioned why more effort wasn’t being made to improve commissioning arrangements, rather than abandoning them.⁴ Nairne had to work hard to overcome these various concerns, invoking the PAC report and the 1979 White Paper, with its concessions to the ‘special status’ of biomedical research. The ‘sleeper’ statements placed in the latter proved their worth at this time. The fact that commissioning under the customer-contractor principle would continue for HPSSR also carried weight and the CSD, with the consent of Treasury, eventually authorised DHSS proposals in March 1980.

In discussion with the MRC, Gowans pushed back at the suggestion that the Department might retain part of the funds. This, he argued, was unnecessary and

1. MH 166/1438, Rennie to Nairne, 18 January 1980.

2. MH 166/1438, Hamilton to Armstrong 7 February 1980.

3. MH 166/1438, Herbecq to Armstrong

4. MH 166/1438, Ryrie to Armstrong, 26 February 1980

would 'impair the harmony of our relationship and prove counter-productive'.¹ Officials in the OCS also began to worry about how they would prepare specific commissions and realised that if they fell back onto broad commissions they would still face the same accountability issues, albeit for a smaller sum. Buller was also in favour of a complete return of funds. In the face of Gowans' assertiveness and the anxieties of officials, the proposal to hold back part of the funds was quietly abandoned. Formal hypothecation of part of the returned funds for HSR was also impossible because of the position of the DES and instead there was agreement to ' earmark' around £2 million of the returned funds for this purpose.²

The intention to return biomedical research funds in full and with effect from 1 April 1981 was announced to Parliament by the Secretary of State, Patrick Jenkin, in a written answer on 28 October 1980.³ It was stated that this move held no implications in other fields of research, for which the customer-contractor relationship would continue to apply. The new arrangements, including greater MRC commitment to HSR, were also communicated to the medical profession in a joint letter from Buller and Gowans.⁴ The sum returned was £13.9 million, which represented about a 20 percent uplift on the 1980/1 MRC budget.

The exceptionalism of biomedical research

As has been noted, no specific measures for medical research were proposed in the 1979 White Paper and nothing reported for the DHSS was obviously exceptional. Equal or greater teething difficulties were noted in the 14 non-health departments commissioning applied research. The impact of Rothschild on the other two research councils affected, ARC and NERC, had been greater than that experienced by the MRC, because a greater proportion of their budgets had been transferred. A comparative account of the development of Rothschild in ARC and NERC illustrates that while the working out of the customer-contractor relationship was not always

1. MH 166/1438, Gowans to Nairne, 9 May 1980.

2. MH 166/1439, *Arrangements for Co-operation of the Health Departments and the Medical Research Council* – the word 'earmarked' appears in drafts but was dropped in the final version.

3. Hansard Vol. 991 Col. 266-268

4. Arthur Buller and James L. Gowans. "Medical research and the funding of the MRC." *British Medical Journal* 282 (1981): 820.

straightforward, in neither case did such difficulties end in a reversal like that seen at DHSS.¹ Gummatt, writing immediately prior to the biomedical reversal, focuses on the difficulties experienced by NERC, which had to deal not only with the Department of the Environment but also with MAFF, the Department of Energy and the Department of Trade and Industry. Of the comparatively straightforward DHSS/MRC relationship, he says, drawing a contrast, that after some initial difficulties ‘the new arrangements seem...to have settled down’.²

Against the background of the 1979 White Paper, the subsequent decision to reverse Rothschild for biomedical research appeared anomalous to contemporaries. When consulted by the Cabinet Office, other government departments were quick to assert that this departure from national science policy could only be justified with reference to the unique nature and circumstances of biomedical research. The Permanent Secretary of MAFF replied that his department’s policy was to extend, rather than reduce, the scope of the customer-contractor principle and that it would ‘not wish doubt to be cast on Rothschild principles generally’. Because ‘the considerations relating to biomedical research are peculiar to that field’, he added, ‘there should be no difficulty in drawing the necessary distinction’.³ In a similar vein, the Departments of Transport and Environment, in a joint response from their Director General of Research, confirmed that while they had no objection to the new arrangements for Health, they did not want to see any precedent established. Instead they urged that ‘these discussions be confined to the very special relationship between the MRC and the Health Departments’.⁴ Other departments replied in a similar vein, insisting that Health was, and should remain, an exception.

Concluding discussion

The changes announced in 1980 amounted to a major re-alignment of power structures within the health research state. In 1971, the structural dominance of the

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1. Miles Parker, “The Rothschild Report (1971) and the purpose of government-funded R&D – a personal account,” *Palgrave Communications*, published 2 August 2016: DOI: 10.1057/palcomms.2016.53.
 2. Philip Gummatt, *Scientists in Whitehall* (Manchester: Manchester University Press, 1980), 204-5.
 3. MH 166/1438, Hayes to Armstrong, 12 February 1980.
 4. MH 166/1438, Holgate to Armstrong, 8 February 1980.

MRC was fundamentally challenged by the *Framework for Government Research and Development*. In 1979/80 the MRC successfully reasserted its claims to autonomy and to control over biomedical research. To achieve this, it used elite medical patronage to place an MRC loyalist in the office of Chief Scientist. It also engaged in a mix of deliberate ‘pot-stirring’, talking up of practical difficulties, and calculated engagement with the PAC to make its case. By so doing, it not only took back control of biomedical research but also acquired a new mandate for health services research and an expectation that it would progressively take this ground from the Department. The success of the MRC in making a case for the exceptionalism of biomedical research is a testament to the power of the medical profession. The frankness of Buller’s account shines a bright light on the working of elite patronage. Elite theory clearly has much to offer to the interpretation of these events.

The contribution of institutional theory is less obvious. On the surface, arrangements at the DHSS conformed to various rational myths dominant in the early 1970s: the customer/contractor relationship; research as a commodity; instrumentalist views of science; and the primacy of planning. The elaborate arrangements of 1973 allowed the Department to ‘tick the box’ for implementation of Rothschild, whilst claiming greater capacity for planning. However, the underlying realities were those of medical subversion of the customer/contractor relationship for biomedical research. Such a situation could only confer legitimacy if it was not too closely scrutinised. A further set of institutional logics were in the ascendant during the 1970s: furthering accountability in government - a major theme of the Fulton Report.¹ The PAC existed to promote government accountability to parliament. Although not then as powerful as it has subsequently become, the PAC was older and more institutionalised than any other select committee and drew power from its ability to call on the resources of the Exchequer and Audit Department.² Once scrutiny had revealed the customer-contractor arrangements for biomedical research to be a thinly-veiled fiction, and perceived the reality that the DHSS has ceded control over such research to the MRC, then legitimacy was lost.

1. Garrett, *Management of Government*.

2. Hennessey, *Whitehall*, 332.

This analysis still leaves one question. Once the fiction was perceived, why didn't government seek to rectify the situation by making the Department a more effective commissioner, rather than by abandoning Rothschild for biomedical research? Why did the logic of accountability lead to an outcome in which resources were transferred back to an organisation that had consistently demonstrated its resistance to accountability? These questions are especially pertinent given the review of Rothschild White Paper of 1979, which concluded that the system was working well. This is where it was important for the MRC to place a Chief Scientist, Buller, who would preach a gospel of despair about any potential for the Department to improve its performance as a commissioner. This was ironic given that the Department strengthened the Office of the Chief Scientist upon Buller's arrival. The other key strategy was repeated insistence upon the special nature of biomedical research. Ultimately it seems that all the actors in wider government preferred the governance of the research councils to continuation of the 'blurred accountability' evident in the DHSS/MRC relationship.

Once Rothschild had been partially demolished, there remained an R&D organisation that looked something like that which existed in the 'golden age' but was more integrated, better resourced and led by a scientific authority figure, the Chief Scientist. It was also an organisation that had acquired the best part of two decades' experience in commissioning HSPPR, although the extent of organisational learning was weakened by fragmentation between 1973 and 1978 and the constant rotation of officials. This organisation had not been valued by Buller whose interest in HPSSR was confined to 'offloading' it onto the research councils. But it existed and had the potential to further develop commissioning for the remaining streams of research under more sympathetic leadership. The continuation of such a role was also envisaged under the new concordat of 1980. The RLGs provided another important source of continuity. These had become the most important settings for interactions between policy-makers and researchers, although the extent and quality of such interaction was highly variable. The chairpersons of the RLGs, together with the unit directors, represented a reasonably forceful constituency for HPSSR, with some of the character of an emergent elite, providing a counter-balance to the more firmly established medical research elite represented by the MRC. This, then, was the Departmental R&D organisation going into the 1980s.

10. Rothschild Sustained: 1982 to 1986

A year ago the report commissioned by my predecessor...was published. It said many valuable and useful things on which we are at present acting, but what attracted most attention was its critical comments on the scientific quality of some of the work, with the implication that quality control within the OCS was not good enough. In fact the OCS was well aware of many of the deficiencies to which the report drew attention and were already trying to improve matters. I think our methods of quality control are about as good as they can be and correspond closely to the mechanisms used by the research councils.¹

The focus of this chapter is the persistence of the health and personal services research stream of the programme after the return of biomedical funds to the MRC in 1981. This is worth emphasising, because some of the literature speaks as if this episode marked the end of the ‘Rothschild experiment’ at the DHSS.² In fact, the Department continued to build its R&D commissioning function up until 1986. A major reason for this continuing effort was that the MRC did not exert much energy to develop the role in health services research that Buller so eagerly anticipated. It should not be imagined, however, that the 1980s were an easy period for research management. The departmental programme had to contend not just with a slowly shrinking budget, but also with a far less favourable political climate. In addition, the growth of in-house research units presented an increasingly effective alternative to commissioned research. Based on the headline data, the whole period from 1961 to 1986 was characterised earlier as one of ‘rise and reversal’. This chapter suggests that for HPSSR and allied research a better characterisation might be ‘rise followed by constrained circumstances’. Just as growth in HPSSR research commissioning pre-dated growth caused by the transfer of biomedical research funding, so HPSSR research continued after the return of biomedical research funds.

1. BN 82/222/2, Desmond Pond, Chief Scientist DHSS, *The Chief Scientist’s Report*, May 1983.

2. Duffy, *The Rothschild experiment*.

A new era at DHSS

Desmond Pond took up office as the fourth Chief Scientist in June 1982, relinquishing his previous role as Professor of Psychiatry at the University of London. The appointment of a new Chief Scientist does not appear to have been a competitive process, although the exact circumstances remain opaque.¹ Various considerations may have prompted Pond's selection. He was said to be conciliatory by nature and a subtle operator in professional organisations and committees.² In addition, psychiatry occupied a distinctive position, having successfully cultivated the 'middle ground' between biomedical and service-orientated medical research since the 1960s. This can be seen in the career of researchers such as Martin Roth, David Kay and John and Laura Wing, all of whom received extensive funding from both the DHSS and MRC. Holland notes that Pond was 'much more receptive to social science than his predecessor' and a 'peacemaker'. He was, it seems, acceptable to all constituencies.

The Department also decided at this time to appoint a Deputy Chief Scientist and Controller of Research and Development. This was belated adoption of the Rothschild concept of a 'Controller R&D', some ten years after it was mandated by the *Framework for Government Research and Development*. The Department's statement of the qualities required gives a good indication of thinking about context for this appointment.

Like the Chief Scientist the DCS/R&DC should have considerable research experience and have the managerial, personal and diplomatic qualities needed to control, co-ordinate and promote research of a high quality, coupled with the academic qualifications and record needed to command the respect of the scientific community and his colleagues.³

This position was advertised, and Professor Robin J. Cole was appointed in August 1982. Cole, who was not medically qualified, was Professor of Developmental Genetics at the University of Sussex. As DCS, Cole was responsible for the day-to-day management of the OCS, as well as deputising for the CS as required.

1. BN 82/227, *Appointment of Chief Scientist/Deputy Chief Scientist*, 11 January 1982.

2. Obituary, "Desmond Arthur Pond.", Martin Roth, *Munk's Roll VIII* (385), 1986.

3. BN 82/227, *Civil Service Commission S/5723/82*.

The OCS inherited by Pond had developed in its structure and staffing from the organisation set up for Buller in 1978. Whereas Buller complained in 1980 that he only had 12 staff members, there were 36 established posts by 1982. Growth had been achieved through the grafting on of additional professional branches for social services and nursing. The former included professional staff concerned with social work and the staff working on social sciences research more generally (the remnants of the SSRU). Social security research was also broken out of the administration branch into a dedicated branch, staffed by research officers. In its revised form, which was in place by 1981, OCS thus combined administrative and professional staff, segregated into separate branches. An administrative branch provided cross-division support for the four professional branches: medical research, social services research, nursing research and social security research. The last of these continued to combine in-house research with the commissioning of research from external providers.

Upon Pond's arrival, then, the OCS amounted to a maturing organisation that was reasonably well-equipped to operate across the range of HPSSR, apart from those streams that remained under the control of the 'specialist branches': supplies, building and computing. By this time, the Economic Adviser's Unit was also beginning to act as a specialist commissioner of health economics research.¹ The Department had thus made considerable progress away from the fragmented management arrangements in place before 1978, although it had still not achieved a fully integrated programme.

Inherited policy issues

Upon taking up office in March 1982, Pond was confronted with a range of policy issues needing his immediate attention. Foremost among these was the need to respond to a report by the Chief Scientist's Advisory Group on departmental-funded units. This had been initiated by his predecessor and so was referred to within the Department as the 'Buller Report'. In addition, he needed to prepare for the annual 'stock-take' with the MRC, the first to be conducted under the terms of the 1980 concordat. He was also expected to co-ordinate a response to the House of Lords Select Committee Report on Science and Government and to advise the Permanent

1. BN 82/227, *Briefing Pack for the Chief Scientist*.

Secretary on Lord Victor Rothschild's review of the SSRC.¹ This all amounted to a substantial agenda for the new Chief Scientist.

The portrayal by Kogan of 'Rothschild partly demolished' might also lead us to expect that Pond had to deal with the aftermath of a substantial reduction in the role of RLGs. In fact, this was not the case, and the picture is instead one of continuity, with the RLG system persisting largely unchanged through the Buller era to 1986 and beyond. This aspect of Buller's legacy will be examined first, before proceeding to consider the impact of his report on the research units.

Research Liaison Groups

In their 1980 monograph, Kogan *et. al.* write of the RLGs having 'dramatically reduced their activities'. They attribute this to a reduction in the extent to which research management 'spurred on the policy decisions to be active in the RLGs' and to the abolition of the Chief Scientist's Research Committee. They then proceed to argue that the research councils would never be able to respond as effectively to customers' needs as the RLGs.² A closer examination of events suggests that these arguments read too much into a temporary dip in activity and a review that was intended to ensure a more balanced allocation of research management resources.

Servicing the RLGs consumed much OCS staff time, to the extent that other responsibilities were neglected, including support for 'non-RLG' areas and the monitoring of units. Contrary to original aspirations, the RLGs never covered more than about half of the Department's responsibilities. Consequently, a range of supplementary mechanisms were needed to serve a similar role in those areas not covered. These mechanisms included professional staff attachment to non-RLG areas, specialist committees such as the Social Security Research Policy Committee; and working groups of various kinds.³ A reduction in RLG activity would release OCS resources for these other activities and allow a more balanced commitment.

Proposals to reduce RLG activity were, perhaps predictably, resisted by RLG Chairmen who argued that 'areas covered by RLGs are better able to commission

1 BN 82/227, *Forward Look – the Chief Scientist's Tasks 1982*.

2. Kogan et al., *Government's commissioning*, 48-9.

3. Gordon and Meadows, *Dissemination*, 84.

satisfactory research and to use the results than those without RLGs'. The Chairmen argued that a solution to the OCS resource problem lay not in a reduction of RLG activity but in a reduction of unit activity.

The present substantial commitment of research funds to units undertaking work of little interest to DHSS illustrates the dangers of research commissioning without full customer and scientist involvement.¹

Faced with this opposition, the OCS decided against any reduction in RLG numbers and responsibilities.² Instead, officials looked for measures to reduce the volume of research commissioned through RLGs. This was justified by the need to shift more resources to non-RLGs areas within an overall budget that was shrinking in real terms. Officials also looked to reduce the RLG load on OCS through the 'streamlining' of process. New protocols were introduced to ensure more scrutiny of proposals by OCS and other professional staff before RLG discussion, which was to be limited. In addition, the financial limit for bids to the Small Grants Committee (SGC) was increased and the 'bypass mechanism' discontinued. The latter had diverted any bids of potential interest to the relevant RLG before they reached the SGC.³ The combined effect was to reduce the overall workload on RLGs and reduce reliance on committee deliberations. These measures were communicated by Buller to RLG Chairmen in November 1979 and were widely welcomed as making for a more workable system.⁴

Kogan's portrayal of these changes as an assault on the Rothschild system is therefore misplaced. On the contrary, they represented a pragmatic attempt to streamline working within the customer-contractor paradigm and to achieve a more acceptable balance between committee processes and professional input. They took advantage of the success of the SGC, a rare survivor among the committees introduced in 1973. This streamlined system was inherited by Pond in 1982. The RLGs were not without their critics, as will be discussed further in chapter 11, and

1. MH 166/1555, *RLG Arrangements. Paper by RLG Chairmen*. September 1979.

2. MH 166/1555, *The Role of RLGs*. September 1979.

3. MH 166/1555, *SCG Arrangements*, November 1979.

4. MH 166/1555, correspondence between Buller and Chairmen, December 1979.

Pond was lukewarm about them in comparison to Kogan. In a personal report to Stowe, he describes them as being too large and subject to unstable membership.

Meetings thus often act as educational opportunities for new staff members rather than the group forming a long-term cohesion that would enhance their ability to contribute to the relationship between research and policy.¹

Nevertheless, Pond made no attempt to either abolish or further reform the RLG system, perhaps having come to a judgement that the changes made in 1979 had rendered it serviceable enough and that further change was not a priority. In making this calculation, he would have been mindful of the more pressing need to devote time and attention to the research units, in the light of the Buller Report.

The Buller Report

The White Paper *Framework for Government R&D* had provided for the Chief Scientist at the DHSS to be aided by ‘a small team of scientists’. Their role was described as follows.

Their main task will be to help identify areas for which research is required, to ensure that research requirements are clearly stated, and to review the balance of the Department’s research and development programme. In addition, they will act as a link between the Department and the scientific community so as to develop discussions and partnership between the two.²

Under Black, this advisory role had been developed by the appointment of scientific advisers to RLGs, the Small Grants Committee (SGC) and the Chief Scientist’s Research Committee (CSRC). Given the number of RLGs, this gave rise to a substantial requirement and over 80 scientific advisers, drawn mostly from the academic community, were appointed.³ In addition, scientific advisers sat on committees beyond the purview of the Chief Scientist, such as the Advisory Committee on Medical Computing and specialist groups advising on supplies and equipment R&D. At the end of 1978, the CSRC was disbanded by Buller on the basis that ‘as the Chief Scientist now had administrative responsibility for the HPSS and Social Security research programme and budget, there was no longer a role for a

1. BN 82/222/2, *Chief Scientists’ Report*, May 1983.

2. Cmnd. 5046, para. 21.

3. Kogan et al. *Government’s Commissioning*, 36.

standing committee of external advisors'.¹ Within two years, Buller was arguing that the Chief Scientist needed a scientific advisory group. The role of such a group would be to 'assist him in his task of assessing the size, shape and composition of the research base required...in the light of his current intensive review of DHSS units'. The group would differ from the CSRC, which had included research management representation, in that it would have no departmental members other than the Chief Scientist himself. This was to be a scientists-only club and 'its sphere of concern would be matters of science and science policy'. The group, which became known as the Chief Scientist's Advisory Group, or CSAG, met for the first time in July 1980. Its terms of reference were threefold. First, it was to specify the supplier-base needed to meet the Department's future needs for R&D. Second, it was to assess the adequacy of the current supplier-base, including funded units, to meet the specification. Third, it was 'to recommend how a more equitable match might be achieved having regard to the policy that, wherever practicable, responsibility for management by the research councils should be considered'.² On a more practical level, the group was set up to assist Buller in his programme of unit review, which would involve a critical assessment of scientific merit. The sub-text for this exercise was that some lesser units should be closed to release funds for re-direction to the more competent research councils.

Buller had aired his views about the 'scandalously low quality' of much DHSS-funded research with the MRC within weeks of his appointment. However, Buller cannot be accused of having packed his advisory group with scientists who shared any prejudicial views he may have held. Within the constraints of size, membership of CSAG spanned the broad spectrum of HPSSR. Members included Jack Hayward, Professor of Nursing Studies at Chelsea College; Raymond Illsley, Professor of Medical Sociology in Aberdeen; Michael J. Power, also a social scientist; Jerry Morris, Director of the MRC Social Medicine Unit; John Wing, director of the MRC Social Psychiatry Unit and Colin Dollery, Professor of Clinical Pharmacology at the Royal Postgraduate Medical School. Only the last can be said with any certainty to have held a somewhat jaundiced view of the DHSS R&D programme. As Rock

1. BN 82/225/1, *Formation of an Advisory Group of External Scientists*, 1980.

2. BN 82/225/1, *Chief Scientist's Advisory Group of External Scientists*. Memo by Buller, 4 August 1980.

Carling lecturer in 1978, he had publicly criticised the breadth of the programme, arguing that its resources would be better focused on large-scale epidemiological studies.¹ Dollery wrote to Buller in early 1981 arguing that around half the current DHSS-funded units should be closed immediately without any loss to science. He was critical in equal measure of both unit directors and the ‘inept central management’ of the Department.²

The actual process of review, in which CSAG played a central role, has been documented at length by Henkel and Kogan and need not be discussed further here.³ The report of CSAG was submitted by Buller to the Second Permanent Secretary, Sir Geoffrey Otton, in December 1981. This was nearly six months after the end of his tenure as Chief Scientist. When CSAG was first set up, Buller and Nairne had given commitments to the group that their findings would be made public in due course. The Department felt bound by this undertaking but the staff of OCS, which at this point was being run by its management group in the absence of a Chief Scientist, were uncomfortable with the report. In part, this can be seen as symptomatic of the process adopted by Buller. The professional liaison staff of OCS had been excluded from all discussion of the scientific merit of units and from drafting – an approach that is consistent with Buller’s dismissive attitude towards them. However, content as well as process proved contentious.

Three of the recommendations caused specific concern for the management group. The first was that CSAG, or some equivalent advisory group, should in future advise on the allocation of the HPSSR budget. This was thought to demonstrate ‘a quite unrealistic expectation that the academic community can become directly involved in the Department’s policy and management process’; and as repeating the sins of the CSRC. The second, which was intended to assist the researcher community, was that the Department should provide a tenured career structure for HPSS researchers as a means of developing capacity in the field. This proposal alarmed OCS because of its resource implications. The third recommendation was that ‘urgent consideration should be given to terminating some of the rolling

1. Colin T. Dollery, *The End of an Age of Optimism. Medical Science in Retrospect and Prospect* (The Nuffield Provincial Hospitals Trust, 1978), 80-86.

2. BN 82/225/1, Dollery to Buller, 24 February 1981.

3. Henkel and Kogan, *DHSS funded research units*.

contracts'. This was based on a grading of units in which only six out of twenty-six were classified as 'good' or 'very good'. None were rated outstanding and the remaining twenty were rated as moderately good or worse. Having delivered this judgement, the CSAG report provided guidance neither on the gaps and deficiencies that needed rectification nor how this might be achieved. These matters were, as OCS pointed out, 'the nub of its terms of reference'.¹

The grading exercise was of concern to top officials. It was thought likely to cause considerable embarrassment as, by this time, over half the departmental R&D budget was committed to units. Otton feared that the report was likely to provoke 'great agitation and insecurity among the units; anxiety to know where they stand in the ranking; and fear that they are due for the chop'. He was irritated by the lack of any evidence offered by CSAG in support of their harsh grading and by academic criticism of a programme that had been heavily influenced by academic advisers since 1973. Permanent Secretary Stowe's verdict was that the report was 'an unfortunate mixture of good sense, special pleading and ignorance about ministerial responsibility'.² Buller himself seems to have been left inexplicably dismayed by the prospect of publication whilst feeling bound by commitments given.³ Otton decided that the least damaging course of action would be to issue the report quickly so as to distance it from the arrival of Pond, and it was published in March 1982.⁴ As expected, this provoked correspondence from the units, who took issue with its findings and recommendations. The proposed abolition of 'rolling contracts' and their replacement with programme grants of a maximum five-year term was a particular concern.⁵ The Department deferred substantive engagement with the issues raised by saying that the matter would be dealt with by the new Chief Scientist once he had taken up office. CSAG was wound up in 1982 and not replaced with a

1. BN 82/225/2, *Report of the Chief Scientist's Advisory Group. Commentary by OCS.*

2. BN 82/225/2, Otton to Stowe, 12 January 1982

3. BN 82/225/2, Buller to Otton, 1 March 1982.

4. Department of Health and Social Security. *The Support of Health and Personal Social Services Research. A Report of the Chief Scientist's Advisory Group* (London: DHSS, 1982). Available in BN/82/225/2.

5. BN 82/226, *Summary of comments received.*

new advisory group, the view being that OCS would be able to provide the necessary assessment of research capacity going forwards.¹

Pond as peacemaker

Pond's immediate action upon taking office was to send calming, non-committal letters to those unit directors who had made submissions on the Buller report. After an interval of a few months, during which he was presumably forming his views, Pond set about repairing relations with the units. In November 1982, he held a meeting with all unit directors. He began by reflecting on the turbulent nature of the two years that had passed since such a meeting was last held, including the lengthy interregnum between Chief Scientists. Against this background, he said, it was 'pleasing that the research units were continuing to produce work that was highly valued by the Department'. He went on to assure his audience that neither he nor Ministers were committed to implementing the report's recommendations and that OCS would not, as a matter of general policy, be replacing rolling contracts with programme grants. The meeting then went on to discuss a range of other matters of interest to the HPSSR community, such as relations with the research councils, training and the dissemination of findings.²

This meeting saw a marked change of tone from the Buller era and a frank disavowal of many of the recommendations of CSAG. Pond was clearly not convinced that the criticisms in the Buller Report were entirely justified, as evidenced by the header quotation for this chapter. His personal views alone might not have been sufficient to support such a marked change of policy. By now it was also becoming clear that the research councils were not going to build a significant role in HPSSR at the pace envisaged by Buller. The MRC was moving slowly in developing its new commitment to HSR, so that there was little prospect of any significant contribution soon. Furthermore, the Council had no intention of departing from its strategy of investing in 'good people', meaning that there was no certainty that its future investment would match DHSS priorities.³ The SSRC had survived

1. BN 82/222/1, OCS management group minutes, 11 January 1983.

2. BN 82/220, *The Chief Scientist's meeting with Directors of DHSS-funded research units*, 30 November 1982. This meeting was attended by Henkel and Kogan, who presented a draft of their monograph on the process of unit review.

3. BN 82/222/1, *Medical Research Council: Modus Operandi on Health Services Research*.

review by Rothschild, but at the price of a £6 million cut in its budget and possessed limited capacity.¹ The Department was thus faced with an ongoing need to commission HPSSR from a range of suppliers and the units provided the core of the supplier base.

Turning the tanker

Rejection of some of the CSAG's recommendations did not equate to a desire to maintain the status quo. The OCS was faced with the prospect of declining real-terms budgets, against which the 34 units on rolling contracts represented a substantial commitment of open-ended duration. The OCS had also, by 1983, developed statements of research priorities of an unprecedented specificity, a development made possible by the combination of continuing RLG activity and the work of the OCS.² It was evident that some of these priorities could not be addressed by existing units. Some units were also performing indifferently, or were vulnerable to the retirement of their directors.

In this situation, the OCS triaged the units, separating them between those that should be given notice of closure; those that met the Department's long to medium-term requirements and those that required further scrutiny. The transfer of some units to the MRC was also considered. The OCS management group recognised that 'turning the tanker', in the sense of freeing up money from existing units and re-allocating it to new units, would be very difficult and take several years.³ The Department had backed away from the abolition of rolling contracts, as recommended by the CSAG. As a less drastic policy, it re-wrote some unit contracts so that only 'core' expenditure was funded on a rolling basis. The retirement of unit directors was taken as the opportunity to fundamentally revisit, and sometimes curtail, support. Despite such measures, the tanker was slow to turn and the budget was shrinking in real terms, further limiting room for manoeuvre. Consequently, it proved stubbornly difficult to carve out the 'free money' needed for new initiatives. The Department had finally developed an OCS that could crisply identify and

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1. P. Flater, "'Pulling through' - conspiracies, counterplots and how the SSRC escaped the axe in 1982," in *Social Science Research and Government* ed. Martin Bulmer (Cambridge: Cambridge University Press, 1987), 353-372.
 2. BN 82/220, *Statement of research priorities*.
 3. BN 82/222/1, OCS management group minutes, 11 January 1983.

prioritise research needs, but the financial capacity to execute new commissioning was severely limited.¹ So, for example, for 1983/4 the Department only had £450,000 uncommitted and available for ‘new starts’, or just 3 percent of the total HPSSR budget of £15 million.² Yet there was no reduction in demand, not least because the research councils were moving so slowly in developing their own HPSSR activity.

The research councils and HPSSR

Under the 1980 concordat, the MRC committed to ‘as opportunities arise, engage in health services research to a greater extent than at present in MRC units and by grant support to universities’. The aim was to increase, over time, the share of the national capacity for health services research provided by the MRC, in the expectation that the DHSS would commission an increasing proportion of its work from the Council. A ‘small part’ of the returned biomedical research funds were to be applied to HSR, addressing objectives to be identified by DHSS. The sum involved would rise gradually over five years to a maximum of £2 million (at 1980 prices). This compare to £13.9 million returned to the MRC and a total MRC budget in 1981/2 (including the returned funds) of £102 million. In addition, the DHSS might provide additional funds for HSR from its own resources, through specific commissions.³ The new concordat thus entailed a relatively modest commitment to HSR by the MRC.

As has been shown, Buller hoped for a much larger role for the MRC and had approached Gowans to propose this as early as September 1978. The response was cautious. Gowans advised that the Council did not have the advisory machinery in place to deal with HSR applications in the areas proposed by Buller: acute services, dental health, public and environmental health, and safety of medicines. Nevertheless, he thought that to might be possible to supplement grants committees and boards with relevant expertise so that they were able to respond to applications from researchers ‘in just the same way as we deal with applications in the biomedical

1. BN 82/222/1, *Review of Units*, 14 February 1983.

2. BN 82/222/2, *1983/4 Starts* 29 April 1983

3. FD 25/2, *Arrangements for the co-operation of the health departments and the Medical Research Council*.

area'. He was less encouraging about Buller's suggestion that the MRC might play a more proactive role in commissioning work, building capacity and potentially taking over existing DHSS-funded units.¹ It was clear that the MRC did not want to see either the balance of its programme or its mode of working significantly disturbed by an increased commitment to HSR. In the discussions leading up to the concordat, the MRC emphasised its existing commitment to HSR in the 'middle ground', pointing to existing Council units in medical sociology, social psychiatry and epidemiology. The Buller report included an annex documenting the extent of existing MRC support for HSR.² The CSAG interpreted this as evidence of the MRC's suitability to take on a greater role in HSR. From the perspective of the MRC, this was more likely to have been interpreted as justification for holding a steady course, in which the Council slowly increased its commitment within the existing paradigm.

The same cautious approach was evident when it came to institutional arrangements for HSR. The Council considered setting up a Health Services Research Board, which would have the advantage of being 'a visible sign to the research community that the Council was taking this responsibility seriously'. However, against this there was the disadvantage that it was unlikely that there would be 'sufficient business to make anything but an ineffective and wasteful use of Board members' time'. The Council thus proposed a Health Services Research Panel (HSRP) with a purely advisory role. It was envisaged that this panel would meet on an ad-hoc basis and work mainly by correspondence. It was not envisaged that any of the members of the HSRP would also sit on the grant-making boards and committees of the MRC. This proposal was welcomed by Buller and by Henry Yellowlees, the Chief Medical Officer, as likely to appease the HSR community. Buller also accepted that there would be no health department representation on the HSRP.³

The HSRP in this form might be interpreted as the smallest institutional commitment that the MRC felt it could make to demonstrate that it was serious about its greater commitment to HSR. Three considerations lay behind this approach. First, the MRC had no intention of changing its main way of working, which was to

1. FD 9/4545, Gowans to Buller, 8 November 1978.

2. DHSS, *Report of the Chief Scientist's Advisory Group*, Annex A.

3. FD 9/4549, *Health Services Research: Implementation of the New Concordat*, Extract from minutes of Council meeting 14 May 1981.

respond to proposals from researchers rather than to issue calls for research on specific topics. This approach reflected its commitment to a knowledge-led, rather than problem-led, model of research production. Second, the Council feared that too much HSR influence on grant-making bodies would lead to funding being diverted away from biomedical research. Anxiety about excessive HSR influence extended to membership of the HSRP with initial proposals for membership being rejected by the board chairmen who ‘felt strongly that the first list was packed with HSR people, who might well give unanimous advice that boards would find difficult to override’.¹ The final consideration was that the senior staff of the MRC did not consider HSR to be a scientific discipline *per se*. They saw it as lacking a formal academic basis and an integrated body of theory and in need of greater scientific rigour.²

HSR was viewed through the lens of medical interests, with epidemiology as its core discipline. The Council believed that HSR should be medically-led or undertaken in close co-operation with doctors. Community medicine was seen as the practitioner base for the field. The MRC showed little interest in the other strands of research within the broader school of HPSSR cultivated by the DHSS. Operational research was viewed as a matter for health authorities. Social research presented more of a conundrum because the MRC’s activities in the middle ground had extended into fields such as medical sociology. The SSRC had established a commitment to HPSSR through its Panel on Health and Health Policy Making, dating back to 1976. This brought an even more academic orientation to the field than the MRC, seeking to be distinguished by ‘its conceptual rather than problem-solving approach’. It also sought ‘not to be bound by medical or administrative definitions of problems for research’ and rejected the ‘medical model’ of health.³

Had the SSRC been an assertive and well-funded organisation, this very different orientation and philosophy would almost certainly have led to some friction at the boundary with the MRC. However, the SSRC was, in the early 1980s, in a weakened state. Its first large programme of research at the behest of the DHSS, on ‘transmitted deprivation’, had ended with a dissatisfied customer. The principal initiator of this

1. FD 9/4549, memo to Gowans, 19 June 1981.

2. FD 9/4549, *Health Services Research, note for discussion*.

3. FD 9/4558, *Panel on Health and Health Policy Research*

programme was Keith Joseph, when Secretary of State for Social Services.¹ Nearly a decade later, Joseph's resentment at what he saw as academic subversion of the programme played into his decision as Secretary of State for Education and Science to conduct a review of the SSRC.² Lord Victor Rothschild undertook the review in the first half of 1982 and became an unlikely saviour for the SSRC.³ Given this existential threat, and subsequent budget reductions, the Council was not in good shape to undertake major new initiatives in the early 1980s. Consequently, although MRC/SSRC boundary issues could not be ignored, neither did they come to the foreground. The essential question for the MRC, which it never answered in any conclusive way, was articulated as follows.

There was no doubt that many sociologists...thought that the sociologists could take over from the biologists (broadly defined): while in its extreme form this was ridiculous the immediate problem facing the MRC was the extent to which it should go down the road to meet the sociologists. (This problem remained unresolved.)⁴

As has already been noted, and regardless of any expectations that Buller may have harboured, the administrative staff of OCS appreciated that the MRC involvement in HSR under the new concordat was to be limited in scale and scope. The Department agreed protocols with MRC officials to channel grant applications towards the most appropriate body and to ensure that an application turned down by one was not subsequently considered by the other. MRC guidance to potential applicants made it clear that 'the MRC's involvement would be on a limited scale, at least initially' and that the Council's preference would be to 'develop in and from those areas of existing experience'.⁵ The new machinery for HSR was already in place by the time Pond took up office in 1981. Pond's interventions were confined to questioning the lack of health department representation on the HSRP. In a response that is indicative of MRC anxieties one official advised colleagues that 'Sir Desmond

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1. Sir Graham Hart identifies this as a rare example of a minister acting as the customer and driving force for a major research programme. Interview, London, March 2015.
 2. Albert Cherns, "A policy for the social sciences?" in *UK Science Policy. A Critical Review of Policies for Publicly Funded Research* ed. Maurice Goldsmith. Harlow: Longman, 1984, 150-188.
 3. Flater, *Pulling through*.
 4. FD 9/4558, File note by K Levy, 5 April 1982.
 5. FD 9/4547, *Health Services Research*.

is being used by his colleagues to increase – as they see it – their hold and control over the MRC'.¹

By 1984, members of HSRP were becoming increasingly frustrated about their purely advisory role. Its chairman, A. G. 'Gerry' Shaper, a clinical epidemiologist, persuaded the MRC that a review was needed, arguing that the panel should be given grant-making powers. The Council was initially unable to agree on this proposal, which received support from Pond, Deputy CMO Reed and Donald Acheson (later CMO). To resolve the impasse, Council requested a more detailed paper, including discussion of options. Shaper came back with a full and polished paper, which argued that the task of grant-making for HSR could not be undertaken within the existing structures of the MRC, which were all set up to deal with biomedical research.² Here was an argument emanating from within the MRC that rejected the Buller premise that HSR and biomedical research were all part of a continuum and could be dealt with through the same mechanisms. The Council eventually agreed to reconstitute HSRP as the Health Services Research Committee (HSRC). The new committee was to be given a budget of £2.7 million (the original £2 million uplifted for inflation) for an 'experimental period' of three years and limited grant-making powers. A cautious pace prevailed even once this decision was made, with the start date for HSRC being set as September 1986.³

The MRC sections of the Cabinet Office Annual Reviews of Research and Development between 1983 and 1986 are notable for their failure to even mention HSR. In contrast, the sections on the DHSS present an ongoing programme of commissioning in familiar streams: HPSS, social security, building and engineering, equipment and supplies, and information technology. The history set out above explains this presentation. The MRC's commitment to HSR remained, by design, peripheral to the Council's main programme and was viewed by some biomedical scientists as a possible 'cuckoo in the nest'. In this situation, it is unsurprising that the DHSS pursued 'business as usual' within its well-established streams of HPSSR, broadly defined. Business as usual included continuing commitment to research

1. FD 9/4549, 'TV' to Gowans, 14 May 1982.

2. FD 9/4549, *Health Services Research Panel*, Revised Report to Council, 28 February 1985.

3. FD 9/4580.

units, albeit with a greater interest in closing units where desirable, and to RLGs, despite their acknowledged shortcomings. This is the context in which Taylor and Teeling-Smith, writing in 1984, comment that ‘since the end of 1981 events have proved to be somewhat less dramatic than many people working in HSR feared’.¹

New challenges

Thus far, this chapter has examined the principal issues inherited by Pond and Cole. During the period 1981 to 1986, further challenges were layered onto these ‘legacy’ issues. These new challenges followed from marked changes in government policy after 1979. The most obvious of these was the commitment to reductions in public expenditure, including publicly-funded R&D. Between 1981/2 and 1986/7, the total civil R&D budget was projected to remain static in real terms. The DHSS budget was projected to suffer disproportionately large real term reductions of 30% over this period.² In the event, the Department fared a little better than this, with a real-terms decrease of closer to 20%. Alongside these funding reductions came other policy changes. The government sought opportunities for the privatisation of government science and introduced greater scrutiny of the ‘value for money’ of publicly-funded research.³ Even more damaging, the programme of commissioned research fell into political disfavour and became less ideologically relevant. The outcome of these forces was a reorganisation in 1986 that downgraded the role of the Chief Scientist and the capacity of the OCS.

Shrinking budgets

The implications of reducing real terms budgets for the research units have previously been considered. The task of ‘turning the tanker’ was made more difficult by a falling tide. The minutes of a meeting of the OCS management group at the end of 1984 illustrate the pressures arising. Pond was engaged in special pleading for R&D budgets to be exempted from a general cut of 3.1 percent on DHSS budgets. Should these efforts prove unsuccessful, the group noted, then ‘stringent action’

1. Taylor and Teeling-Smith, *Health Services*, 113.

2. Cabinet Office. *Annual Review of Government Funded R&D* (London: HMSO, 1984), Table 2.3.

3. Charlotte M. Cunningham and Robin H. Nicholson. “Central government organisation and policy making for UK science and technology since 1982” in eds. Nicholson et al. *Science and Technology in the United Kingdom*, 27-43.

would be needed to keep the programme within its cash limit. Measures would include no starts to new projects in the following year, together with 4 percent and 3 percent cuts in unit and existing project budgets respectively. Up to this point OCS had sheltered researchers from cuts, helped by project slippage, but it was acknowledged that this would not be possible going forwards. The management team worried about the effect of across-the-board cuts on the performance and sustainability of the units.¹ To limit the impact on existing work, all bids for new starts were deferred until the following year, when the OCS again found itself engaged in a very similar discussion.² OCS had, by this time, developed a clear understanding and articulation of its future research priorities³. To then find itself with minimal scope for commissioning new work must have been dispiriting.

Threat of privatisation

The DHSS was not the most promising candidate for the government's research privatisation programme because of its limited commitment to in-house research. In response to early enquiries, the Department reported that BRADU was in the process of being transferred to University College London. The remnants of the SSRU were deemed to be unsuitable for privatisation, being too small and embedded.⁴ The operational research service was not mentioned in this response, indicating that it had now become identified as an integral part of the analytical capacity of the Department. Having separated from R&D management in 1973, this service had remained in the Establishments Division before being combined with the Economic Adviser's Office in 1982.⁵

The privatizing zeal of government was not, however, so easily deflected and in August 1984, Secretary of State Norman Fowler set an objective that the R&D requirements for HPSS should be met from outside the Department. Deputy Secretary Timothy Nodder was given the task of undertaking a review to determine how this might be achieved. This was to be a review of 'the full range of functions and facilities required for the promotion, commissioning, co-ordination, execution

1. BN/82/223/1, OCS management group, 11 December 1984.

2. BN/82/223/2, *Public Expenditure Survey 1985*.

3. BN/82/223/1, *New Research Proposals*.

4. BN/82/224.

5. Smee, *Speaking Truth*, 3.

and dissemination of research and development related to the health and personal social services'. In other words, it was to be comprehensive and not just limited to OCS. The focus was on R&D into the needs for and delivery of health services. Customers for such research were identified as the Secretary of State and the recently-established NHS Management Board.¹ Unit directors responded with alarm to this development, recognising that possible dismantling of OCS was on the agenda and that the transfer of functions to the research councils remained a possibility. Nodder's investigations predictably identified the slow progress being made by the councils in HSR, together with the continuing need to maintain oversight of research units. Based on these findings, he concluded that departmental R&D management capacity should be maintained.

Political disfavour

Secretary of State Fowler had been irritated by the publication of several Department-funded studies questioning official policy and was determined to reduce the freedom of action of the OCS.² The legacy of Douglas Black's report on health inequalities, and continuing research on this topic, added to Conservative ministers' perception of publicly-funded health research as politically problematic.³ Even more fundamentally, the position of the R&D programme had been undermined by changing orthodoxy about how the business of government should be conducted. In the 1960s and 1970s the programme had been able to attach itself to the veneration of planning. By the 1980s, planning had fallen out of fashion and performance management, privatisation and outsourcing had taken its place.⁴ The commissioned research programme and its supporting researcher community, which had grown up during a more liberal era, was not, in the main, orientated towards these concerns. This was a climate where the in-house analytical resource available in EAO/ORS could offer a more rapid and politically attuned version of 'disciplined inquiry' than might ever be attained through academic research.⁵

1. BN 82/223/1, *DHSS Social Science Units Submission to Mr Nodder*.

2. Interview with senior medical civil servant.

3. Virginia Berridge and Stuart Blume, *Poor Health* (Frank Cass, London, 2003).

4. Stephen Harrison, *Managing the National Health Service* (Chapman and Hall, London, 1988).

5. One interviewee, who worked in ORS during this period said that: 'we were desperately keen that internal policy customers should see us as useful rather than academic'. Note

It was against this background that the OCS was reduced in 1986. Ironically, under Pond, the Department had finally attained a mature and reasonably competent R&D organisation, operating under Rothschild principles. With the creation of the DCS post the Department finally adopted the Rothschild concept of ‘Controller R&D’. The routine work of OCS was probably better performed than at any other time. Customers were systematically consulted about their needs and the finding collated into statements of priorities. The OCS had also made a good start in meeting new demands for ‘value for money’ reporting assembling extensive, if somewhat unsystematic, evidence to demonstrate the influence of DHSS-funded projects on policy and practice.¹ None of these achievements counted for much in the new climate. Pond’s successor, Francis O’Grady, was appointed on a part-time basis. The OCS became the Research Management Division (RMD) and its staff were reduced in number. The new Deputy Chief Scientist, Jeremy Metters, advised staff that the Chief Scientist should not be involved in any day-to-day business, adding that ‘the line management responsibility for RMD falls to me’.² A new Departmental Research Committee was established and given terms of reference that re-packaged familiar concerns. The revised research management arrangements were to assist the policy branches in articulating their research needs; to introduce a more ‘flexible’ commissioning policy (with an emphasis on using private sector contractors to produce research more quickly); and to maintain oversight of the research budget.³

Concluding discussion

This chapter has highlighted marked continuity in the HPSSR and allied streams of the departmental programme during the 1980s. The return of biomedical funds to the MRC may have been attained, but Buller’s vision of a more far-reaching counter-reformation, in which the research councils progressively took on non-biomedical research, was not. For the health research state, this indicated that the emergence of a

also Smee’s consistent avoidance of the term ‘research’ in describing the work of EAO/ORS.

1. BN 82/227, *Value for Money of R&D*. In today’s jargon this would be referred to as ‘impact’ reporting.
2. BN 82/227, *Role of the Chief Scientist*, 30 September 1986.
3. BN 82/227, *Chief Scientist Appointment*.

second major actor was more than just a passing phenomenon. How might this persistence be interpreted within our analytical framework?

Historical institutionalists pay attention to ‘institutional inertia’ and ‘organisational stickiness’. They observe that institutions frequently persist long after the conditions that originally gave rise to them have ceased to exist. The related theory of ‘path dependency’ seeks to explain why it is unusual for institutions to deviate from a specific path, once established. The original form taken by institutions is, per this theory, only one among multiple possibilities and may be determined by ‘conjunctures’ of ideas and circumstances at a moment in history, rather than large structural forces.¹ Path dependency has been used to explain the persistence of manifestly sub-optimal policies and organisations in health care.²

In the case of HPSSR commissioning, the mechanisms that kept the programme ‘on path’ can be readily identified. These included: the institutionalisation of research supply through the unit mechanism; the use of rolling contracts; and the continuity provided by the RLGs and the OCS. The unit mechanism, and the use of rolling contracts, reflected a deeper underlying constraint, which was the need for capacity building in HPSSR. To build units, security of tenure was needed for core staff, which in turn required some security of unit income. The economics and institutions of the research economy, in combination with a reduced budget, meant that rapid changes of direction were simply impractical, as reflected in the ‘turning the tanker’ metaphor used by the OCS.

These endogenous mechanisms locked the department into the path of sustained HPSSR commissioning. The lack of appetite on the part of the MRC for an accelerated commitment to HSR provided external reinforcement. The Council made the smallest and slowest commitment that was politically feasible within the terms of the new concordat. In part, this was determined by the economics of research, which applied to the MRC as much as they did to the Department. The MRC also had

1. Paul Pierson, “Increasing Returns, Path Dependence and the Study of Politics,” *The American Political Science Review* 94, No. 2 (2000): 251:267.

2. David Wilsford, “Path Dependency, or Why History Makes it Difficult but Not Impossible to Reform Health Care Systems in a Big Way,” *Journal of Public Policy* 14, No. 3 (1994): 251-283.

commitments to units and centres that could not be swiftly cast off. But it also reflected cultural constraints.

Path dependency theory was originally developed to explain the economics of innovation. Theorists have subsequently looked to culture to extend its application to political science.¹ Culture, as well as economics, does appear to have played a part in the sustaining of the HPSSR commissioning programme. By the 1980s, there was a well-established researcher community that looked to the Department as the major patron of applied health research. The elite members of this constituency were the unit directors and the RLG chairs. Although not as powerful as the biomedical elite represented by the MRC, this group still represented enough of a ‘counter-elite’ to provide positive reinforcement for continuity. Within the Department, the research management function was now mature, and an established cadre of staff was engaged in brokering the relationship between internal ‘customers’ and the suppliers of research. These established interests provided ‘push’ for continuity. Culture also contributed to the lack of ‘pull’ from the MRC. Health services research was viewed by many on the Council as ‘alien’, and its practitioners regarded warily as a potentially disruptive influence.

To use the language of path dependency, Buller sought to achieve a ‘critical juncture’, and a change of path, during his term as Chief Scientist. He sought not just the return of biomedical funds, but also to set the health research state on a path that would have ended with the research councils taking the lead role of HPSSR and allied research. A new path was successfully established for biomedical research for two reasons. First, because achieving this outcome really mattered to the medical research elite, for ideological as well as practical reasons. Second, because the Department’s arrangements for the commissioning of biomedical research could not conform to the institutional logic of accountability. Neither of these conditions applied to HPSSR. Instead there existed economic and cultural forces for path continuity, as outlined.

In 1986, OCS capacity was reduced, and the status of the Chief Scientist downgraded, for political reasons. Within two years, the House of Lords Select Committee produced its bleak diagnosis, which prompted the 1991 NHS R&D

1. Pierson, *Increasing Returns*, 257-265.

Strategy and the creation of a new set of organisation arrangements for commissioning research that would be relevant to the NHS. These events are beyond the scope of this thesis, but they point to the presence of powerful forces for a continuing commitment to service-relevant research, as first explored by the Department in the early 1960s.

11. Making Research Useful

We find that researchers identify the utility of their research predominantly in terms of its potential to influence professional practice. Departmental personnel tend to perceive utility in terms of implications for policy development. We suggest that Department staff have been placing too great an emphasis on research assimilation within the Department as compared with dissemination to the field. Both researchers and the Department are, in consequence, limited in their dissemination of research findings to the field level, and so to the professional practitioner groups for whom researchers feel their findings have most implications.¹

The Department's research and development programme rested on an instrumentalist narrative. Its professed purpose was to provide problem-solving research, serving the policy-making needs of the Department and the operational needs of the NHS. This orientation, together with its preference for external research providers, meant that it should have been well-positioned to align itself with modernising science policy. Yet, as has been shown, it made heavy weather of the Rothschild reforms and achieved the dubious distinction of being the only department to suffer a partial reversal. The analysis so far has looked to power and interest in the health research state to explain this phenomenon. This chapter focuses on the mechanisms that the Department used to make its research 'useful' to various audiences, and so fits more within the theme of exchanges for health research.

Identifying research needs

The *ex-ante* challenge in making commissioned research useful is to ensure that it relates to areas of need for new knowledge.² During the 'golden age', the Department gave researchers considerable latitude to identify topics for research. The informal team acted as brokers to connect policy-leads to researchers and was receptive to collaborations between researchers and NHS bodies. The grant-making practices of the Nuffield Provincial Hospitals Trust also promoted the latter.

1. Gordon and Meadows, *Dissemination*, 276.

2. Council for Medical Sciences. *The Societal Impact of Applied Health Research*.

Willingness to look to the researcher community for a lead waned as the era of enlightened patronage passed and as researcher participation became less spontaneous.¹ The personal networks relied upon under Cohen and Cornish were replaced with more transactional relationships. At the same time, researcher participation in the programme became more institutionalised. The primary vehicle for this process was the use of advisers on committees such as the Chief Scientist's Research Committee, Small Grants Committee and Research Liaison Groups.

After 1975, the RLG emerged as the main mechanism for the identification, articulation and prioritisation of research needs. RLGs were also tasked with the review of research findings, feedback to researchers and the dissemination of research within the Department.² Partial coverage, which left gaps in some areas of the greatest political importance, such as waiting lists, caused senior civil servants to regard the RLG mechanism with some impatience.³ RLG structure and coverage was frozen in time, having been shaped in the early 1970s. As has been noted, supplementary mechanisms were needed to fill the gaps.

Opinions on the RLGs are mixed. Kogan and Korman were enthusiasts, arguing for a greater role and seeing the groups as an effective mechanism for connecting customers to the research community.⁴ They interpret a reduction in RLG activity between 1978 and 1980 as indicative of a reduction in the Department's commitment to customers. They claim that customers were broadly satisfied with the RLG system.⁵ Other evidence casts doubt on this claim. In 1977, the social researcher Louis Moss undertook a survey of attitudes towards research within the DHSS.⁶ Moss found that RLGs were the system component that caused greatest dissatisfaction, being perceived as complex, slow-moving, over-large and dominated by conflict between academic advisers and policy customers. Rather than facilitating

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1. This was a source of regret for some researchers: interview with Ann Cartwright, London, April, 2015.
 2. *Consideration of Research Reports* ('Toulmin guidelines'). May 1977. Gordon and Meadows, *Dissemination of Findings*, Appendix 1.
 3. Interviews with Sir Graham Hart and Walter Holland.
 4. MH 166/1321, *The Overall Structures of Chief Scientist's Organisation Research Management*. Note by M. Kogan and N. Korman, July 1975, p.15.
 5. Kogan et al, *Commissioning*, 47-49.
 6. BN 82/110, Louis Moss, *Some Attitudes Towards Research*, June 1977. 14-15

connection with the research community, the academic advisers were viewed as a barrier and were a source of frustration to other participants in the RLGs, because of the narrowness of their academic concerns and lack of real world experience.¹ They were thought to promote research of little practical value.

There is a need for bringing about a dialogue between academics and the Department to explain the inevitable differences between academics' clinical research and the more practically orientated operational research that should be available for policy-making.²

Most policy leads saw the RLGs as having suffered from what might be described as 'academic drift': the process by which knowledge that is intended to be useful gradually loses its ties with practice and becomes subject to self-referential academic criteria.³ This sense that the commissioned programme had suffered from academic capture led to demands for the strengthening of internal analytical capacity. The RLGs persisted, but against a backdrop of widespread scepticism about their ability to identify and articulate the right research questions.

Dissemination

It has been observed that, during the 'golden age', the Department was focused on R&D production and paid much less attention to dissemination and adoption of findings. The working assumption was that these later stages in the research production and utilisation process were the responsibility of policy leads. The primary task for the R&D organisation was thus to engage these leads in a way that enabled them to function as effective customers. As has been shown, this proved time-consuming and unreliable. Some argued for the tighter linkage of research to planning as a way of improving uptake. For a brief while it looked as if this had been achieved in the Planning and Research and Development division (PRD), but this organisational link was severed less than a year after it was forged.

In 1981, Gordon and Meadows, two researchers from the University of Leicester published a forensic report on the Department's dissemination practices. The authors comment that the 'large and heterogeneous' nature of the audience for commissioned

1. BN 82/110 *Some Attitudes Towards Research*, para. 26.

2. Policy lead quoted by Moss.

3. Jonathan Harwood, "Understanding academic drift: On the institutional dynamics of higher technical and professional education," *Minerva* 48, no. 4 (2010): 413-427.

research meant that the Department needed to put considerable effort into dissemination. Despite this, the OCS rejected the researchers' original proposal to include NHS bodies in their survey, instead requiring that the project's scope be confined to the Department.¹ Gordon and Meadows found considerable variation in dissemination practices even within the Department. Dialogue with researchers, in the form of feedback on reports, and responsibility for dissemination were both the responsibility of RLGs, where these existed. Considerable variation in practice was evident between different RLGs and even more variation in areas not covered by RLGs. These led the researchers to describe dissemination practice as 'idiosyncratic'.²

Gordon and Meadows found that both departmental behaviours and career incentives encouraged researchers to dispense with their final reports and move on, rather than engaging in 'multiple acts of dissemination'. Half of researchers who responded to the survey had never received any feedback on final reports. Of those who did, a third received no more than a note of appreciation.³ Academic reward structures encouraged narrowly-focused reports reflecting specialist academic interests, rather than synoptic reports aimed at a wider audience. Even more fundamental than these problems, though, a misalignment of incentives meant that the needs of practitioners in the NHS were largely ignored.

Both researchers and DHSS personnel consider it to be a researcher's responsibility to disseminate to his or her peers, whilst the Department assumes responsibility for its own internal dissemination to policy makers. No group, however, clearly accepts that it has a responsibility for dissemination to such extra-departmental groups as professional practitioners. This is a matter of considerable concern, since researchers, at least, identify professional practitioners as the groups for whom their findings have most implications. The Department can clearly encourage dissemination to such groups if it encourages researchers to disseminate to them. In addition, the Department needs to take its own initiatives to assist dissemination of research findings to extra-Departmental groups.⁴

Such recommendations fell on deaf ears, with the Department increasingly unable to look beyond the needs of its own internal customers after 1973. This was

1. Gordon and Meadows, 3.

2. Ibid. 273.

3. Ibid. 274-5.

4. Ibid. 278-9.

symptomatic of a more systemic difficulty, which was that the Department struggled to balance its role as a ‘proxy customer’ for the NHS with its own requirements for policy-making.

The Department and the NHS

The last Chief Scientist, Francis O’Grady, claimed in 1992 that the Lords’ Select Committee had misunderstood the purposes of the departmental R&D programme. O’Grady argued that, contrary to the committee’s assumption, the programme did not exist to provide useful knowledge for the NHS. Instead its purpose was to meet the needs of ministers.¹ This drew a pointed rebuttal from the first Chief Scientist, Richard Cohen, in which he describes O’Grady’s statement as ‘a travesty of the Department’s historic responsibilities and powers’.² Cohen was always adamant that the programme was committed to research ‘of a precise and practical relevance to the operations of the NHS’. George Godber also took issue with O’Grady’s position.

At no time in my 34 years at the Department did I hear the view that we should not support research for the improvement of health care, but only for the advancement of ministerial policy. The advent of new knowledge must often shape policy rather than depend upon it.³

No Chief Scientist before O’Grady had argued that the programme existed solely to meet the needs of policy-makers and there are two possible explanations for his departure. The first is that it reflects tighter political control of the programme after 1986, under which ministerial needs became paramount. The second is that it reflects a more fundamental and long-standing difficulty in operationalising the Department’s role as ‘proxy customer’ for the NHS.

During the ‘golden age’, the R&DC devoted considerable effort to articulating its role, but this never included any discussion as to how it might engage with the NHS. ‘Dissemination’ was among the functions of the Statistics and Research Division, but this was seen only in terms of encouraging publication and making research findings

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1. Francis O’Grady, "Valediction - a personal view from Professor Francis O’Grady, Chief Scientist at the Department of Health 1986-1990," *Journal of Public Health Medicine* 14, no.3 (1992): 344-348.
 2. Richard Cohen, "The health department and research," *Journal of Public Health Medicine* 14, no. 3 (1992): 341-2.
 3. George Godber, "The health department and research," *Journal of Public Health Medicine* 14, no.3 (1992): 339-341.

known within the Department.¹ Despite this rather limited vision, which reflected simplistic understandings of how research is taken up into policy and practice, the Department did at least have R&D points of contact with the NHS. Prior to 1974, the practice of top-slicing the hospital vote for R&D brought the Department into close contact with some hospital governing bodies around specific projects. Many projects originated ‘bottom up’ in this period, arising out of local collaboration between researchers and NHS bodies, often bolstered by ‘free’ monies. Under the mantra of ‘maximum devolution’ after 1974, locally-initiated R&D became less visible from the centre and in some areas, such as computing research the Department was by this time in full flight from involvement in local projects.

After 1973, the sheer effort required of the Department in ensuring that its internal policy customers were involved in research commissioning, given the byzantine structures adopted, left little room for thinking about the proxy customer role. The Department was also struggling to implement its new planning system, which in theory would allow R&D to provide input into NHS plans. In part, these distractions were the consequence of poor organisational design. But the difficulties experienced were also evidence that the adoption of research in policy and practice was less straightforward than had been assumed in the ‘golden age’. Lack of an NHS collective voice was a further impediment. This was only mitigated after 1983, when the newly created NHS Management Executive began to articulate service interests in R&D. However, concerns about NHS disenfranchisement persisted and were powerfully articulated by the House of Lords Select Committee in 1988.

The focus after 1982 remained the engagement of internal policy customers. Consideration of the needs of the ‘field authorities’ in the NHS, and of clinical practitioners, were pushed to the periphery. Pond and Cole were aware of this neglect, but saw their role one of encouraging research units to develop closer links to Regional Health Authorities. This would encourage more HPSSR applications to the locally organised research scheme, which had otherwise been almost completely captured by clinical research.² By 1983, Pond was briefing Stowe that ‘the NHS claims, with some justification, that they are the real customers in the NHS sense,

1. MH 166/975, *Functions of the Statistics and Research Division*, 4 April 1967.

2. BN 82/220, *Chief Scientist/Research Unit Director meeting of 30 November 1982*.

rather than the DHSS, and they are pressing for a greater influence on research policy within the Department'. Pond's view that the most pressing requirement was not for more input to research from the regions but for better dissemination of research findings from the DHSS to the regions. He also argued for the encouragement of regional research units and the idea of a Regional Chief Scientist. This last suggestion was a precursor of the Regional Director of R&D roles created under the 1991 NHS R&D Strategy. However, in 1983 Pond reported that 'this idea is yet to find favour with the Regional Medical Officers'.¹

An independent commissioner for HPSSR?

The disentangling of the governance level knowledge needs of the Department from the service and practice level needs of the NHS was always likely to be a problem. It could be argued that this is no more than one facet of the Department's long-standing problem in distinguishing between its role as the Department of the English NHS and the UK Department of Health.² As a remedy, an independent authority with responsibility for HPSSR has been suggested on more than one occasion, recurring like a leitmotif yet never acted upon. Cohen dismissed the idea of such a body in 1971.³ It is possible that he was responding to the views of Cornish who, when interviewed by the CPRS in advance of the *Framework* argued for a Health and Social Research Council to be established, to serve 'both the medical and social research needs of those who were directly concerned with human health and welfare'. This idea was dismissed by the CPRS as impractical.⁴ The 1979 Royal Commission on the NHS later revived this idea, when it recommended the establishment of an Institute of Health Services Research.⁵ As previously noted, this suggestion barely registered with the OCS. The House of Lords Select Committee similarly proposed that a National Health Research Authority should be established with semi-autonomous status within the NHS as a special health authority; and that the bulk of the research commissioning budget be transferred to it from the

1. BN 82/222/2, *Chief Scientists' Report*, May 1983.

2. Scott Greer and Holly Jarman, *The Department of Health and the Civil Service* (The Nuffield Trust, London, 2007).

3. Cohen, *The Department's Role*, 11.

4. CAB 168/230, *Note of a Talk with Cornish*, 22 June 1971.

5. Cmd. 7615, para 17.39.

Department.¹ Such proposals were never seriously countenanced because they represented too much of a threat to established structural interests. For the existing research councils, they offered nothing but the threat of loss of territory and funding. For the Department, they threatened a loss of control and patronage.

Concluding discussion

The common thread in this chapter is that the Department was not very successful at implementing the processes and structures needed to make research useful. It struggled to construct forms of exchange that would reliably and economically identify research needs and promote the take up of research into policy. It never really addressed the question of how to make research useful to managers and clinicians in the NHS. In large measure, this reflects the extent to which the Department was consumed by its own bureaucratic complexity and, between 1971 and 1980, distracted by the tensions over biomedical research. As regards Rothschild, it is ironic that a national science policy reform intended to render publicly-funded research more amenable to societal influences should have contributed to such an introspective style of working. The Department's shortcomings in this respect called the credibility of its instrumentalist narratives into question, and rendered it vulnerable to political attack in 1986.

1. House of Lords, *Priorities in Medical Research*, 3.24 to 3.27.

12. Conclusions

In its origin and basis the primary purpose of the Department's research programme, as it was conceived and developed in the 1960s and well into the 1970s, was to support the provision and distribution of health and social care in the NHS; and it was by improvements in the NHS that the success of the programme was expected to be judged.¹

This concluding chapter arrives at some over-arching conclusions, taking a view over the whole period between 1961 and 1986. The discussion is organised within the three themes of the analytic framework, testing the usefulness of the theories employed.

The health research state

Structural interests

Before 1961, the dominance of the health research state by the MRC was uncontested. The MRC had operated for nearly half a century on the basis of a high level of scientific self-governance and autonomy. It enjoyed the support of a medical and political elite. These attributes rendered it secure in its own authority and legitimacy. In Alford's terms, the Council reinforced and reproduced its own monopoly through its legitimising beliefs.² The Cohen committee, meeting in 1952, subscribed to these beliefs and accepted the Council's claims to hegemony in the field of medical research. It also accepted the Council's broad definition of clinical research as including epidemiology, medical statistics and social medicine. Because of the MRC's structural dominance, the R&D activities of the Ministry of Health were negligible.

The allocation of responsibilities by the Cohen committee began to look unsustainable within a decade of its formulation. Under the pressure created by the politics of NHS investment, the Department began to develop its own capacity for R&D from 1961 onwards. Its programme took the form, initially, of commissioning

1. Cohen, *The health department and research*.

2. Alford, *Health Care Politics*, 17.

operational and management research but soon widened out to include ‘service-orientated medical research’. The locally-organised research scheme also began to foster clinical research in the NHS, which grew inexorably as teaching hospitals and medical schools embraced scientism. The MRC did not at first see the departmental R&D programme as a threat to its dominance. The medical research component was very modest when set against MRC spending. Some of this work was, in any event, undertaken by MRC units, bringing a welcome new source of income. As the 1960s passed it also became clear that the MRC had quietly abandoned its claims to hegemony, which had become increasingly unrealistic as health research diversified. Much of the R&D sponsored by the DHSS was of little or no interest to the MRC. The Council was insufficiently interested in fields such as operational research, health services research, the experimental development of supplies and equipment, or computer research to want to claim these as its own. It also decided, when it came to it, that it really wasn’t that interested in the oversight of clinical research in the NHS either. New technology in fields such as imaging, pathology and microscopy, expanded the possibilities for mainstream medical research. The MRC wished to focus its efforts on laboratory research and experimental medicine, a field which came to be termed ‘biomedical research’. In these conditions, the R&D programme was able to grow in a parallel track to the MRC without stimulating any adverse reaction. The health research state thus began to develop a second centre of gravity, which expanded rapidly from the mid-1960s onwards.

The MRC accepted the emergence of new types of health-related research, collectively labelled HPSSR. It also accepted that HPSSR was primarily a matter for the Department. However, it remained extremely protective both of its autonomy and of its dominance of the field that it regarded as its own, biomedical research. Rothschild struck a blow at both these pillars, with its proposal that a significant part of the Council’s programme should come under the customer-contractor principle, with the health departments the customer. It was this, together with Rothschild’s brusque dismissal of doctrines such as the indivisibility of pure and applied research, which provoked such a strident response from the MRC.

The MRC lost the battle over the Green Paper, but it remained unreconciled to the Rothschild reforms. In the short term, it devoted its energy to dampening down the impact of the customer-contractor principle, by negotiating biomedical research

commissioning arrangements that left control substantially in its own hands. It returned to the attack at the end of the 1970s, aided by a Chief Scientist, Buller, who was an MRC placeman. Buller had little regard for the HPSSR programme of the Department and wished to offload this on to the research councils. On this occasion, the MRC won both the battle and the war, obtaining the return of biomedical funds. This victory came at a price, which was the requirement that the MRC should increase its commitment to HSR. At this point, it looked as if the health research state might collapse its second centre of gravity and return to a situation of MRC dominance across the whole field of health research (whilst also allowing for potential expansion of SSRC health-related activity). However, it was by now evident that the Council no longer aspired to such hegemony, fearing that a greater commitment to HSR might dilute the resources available for biomedical research and allow an 'alien' research community undue influence over its affairs. In this situation, the DHSS continued to commission HPSSR and remained a second centre of gravity into the 1980s, although this was weakened by shrinking budgets and political disfavour.

The professionalised state

It need hardly be stated that the medical profession had considerable influence over the development of the departmental programme. Yet, at the same time, it would be a mistake to overstate this influence because of the parallel structure, under which executive powers were reserved for the administrative class. The medical profession provided expertise, authority and networks. It also managed the relationship with the MRC. However, it neither held the purse strings nor dealt with the day to day tasks of research management. Medical networks were of limited value when it came to new fields such as operational, management and social research. For these fields, administrators had to develop their own networks and expertise. The autonomy of the 'specialist branches' also had the effect of limiting the power of the medical profession, because it fragmented the medical advisory role.

During the 'golden age', collaboration between professional and generalist civil servants fostered growth across a broad spectrum of research. This was achieved by 'the informal team', working across organisational boundaries. After 1967, the style of working became more formalised, with the creation of S&R and the R&DC. These

developments created greater administrative capacity, more structured co-ordination and a framework for the involvement of R&D 'customers'. However, they did not involve a move towards an integrated hierarchy. Nor did they alter in any fundamental way the balance of power and influence between professionals and administrators.

The Green Paper placed this pattern of collaborative working under stress. Between 1971 and 1973, the energies of the medical staff of the Department were directed towards damage limitation in the MRC relationship. This took the form of agreeing mechanisms for biomedical research commissioning that left *de facto* control with the MRC and ensuring the appointment of a DHSS Chief Scientist acceptable to the MRC. The seniority of the CMO, with his direct reporting line to the Secretary of State, meant that these matters could be treated as a matter for the medical profession to resolve. The language of 'partnership working' included in the White Paper conferred a veil of legitimacy on this accommodation of MRC interests.

The need to appease the MRC, and the need for credibility, meant that it became an unquestioned assumption that the Chief Scientist would always be medically qualified. This was, on the face of it, further reinforcement of the role of the medical profession in the health research state. However, the role of the Chief Scientist had been made something of a hollow facade. On the biomedical side, agreements with the MRC meant that the role was more ceremonial and diplomatic than one involving real power to re-shape the Council's programme of applied research. When it came to HPSSR, the Chief Scientist had influence through the authority of his office but, in reality, the programme was shaped through large numbers of separate interactions and decisions within the complex committee structures and fragmented bureaucracy for research management. The second Chief Scientist, Black, may have been content with this situation (given that he later defined his contribution as being that of showing that the system could not work), but it was hardly the role envisaged by Rothschild.

The Chief Scientist was given an executive role in 1978. On the face of it, this was yet further accrual of power of the medical profession. However, the first executive Chief Scientist, Buller, encountered considerable resistance from his own administrative staff and other internal constituencies in his mission to get biomedical

funds returned to the MRC. He ran into similar difficulties with his plan to offload other work onto the research councils. It was only the intervention of the Permanent Secretary, motivated by concerns about accountability, which finally led to the return of biomedical funds. The ongoing work of HPSSR commissioning was pursued through collaboration between professional and administrative staff in the OCS. The 1980s saw the increasing engagement of other professional groups, such as nurses, in research. After 1981, a non-medically qualified Deputy CS/Controller became responsible for day-to-day management of these staff and the CS became more of a figurehead. This was explicitly recognised in 1986, when the CS role was once again re-defined as advisory. The power of the medical profession was always counterbalanced by that of the administrative class.

In summary, the departmental programme serves as a case study of the power of the medical profession in the health research state, including the limitations to that power. The medical profession enjoyed considerable influence over the programme, drawn from its authority, expertise and networks. It largely left to its own devices in managing the relationship with the MRC and biomedical research commissioning. However, the profession's authority over HPSSR commissioning was much less extensive, because of the greater role of the administrative class in non-medical R&D. To a lesser extent, the involvement of other health care professionals also diluted this role. The influence of the medical profession over R&D was, at least in theory, at high water during the period between 1978 and 1986. Between these years, the Chief Scientist had an 'executive' role and was supported by a reasonably well-resourced OCS. But even in this era, it proved difficult for a Chief Scientist to fundamentally re-shape the HPSSR programme, as Buller attempted, because of counter-veiling forces such as administrators, RLGs and specialist divisions. It is this combination of strong medical influence over in biomedical research and weaker influence over HPSSR that explains, in part, the mixture of change (more determined by BMR) and continuity (more by HPSSR) evident in the programme's history.

Elitism or neo-pluralism?

Recognition of the differing degree of professional influence over BMR and HPSSR is directly relevant to considering which of our candidate political theories has most explanatory power. Elite theory seems most obviously relevant to the BMR stream. This emerges most nakedly in evidence of the medical profession's shaping

of BMR commissioning arrangements; and its influence over the appointment of MRC loyalists into the role of Chief Scientist. But it can also be perceived in the detail of how medical projects were commissioned in the era of ‘enlightened patronage’. Such matters were decided by a small number of senior medical administrators with close professional (and sometime personal) connections across organisational boundaries. From the perspective of the MRC and its supporters, the activities of this elite were legitimate and in the public interest. Protecting excellent science from the instrumentalism of Rothschild was justified as being more likely to lead to health gains in the longer term. This stance could also be justified as a defence against Lysenkoism, as seen in invocation of the ‘Haldane Principle’. If this interpretation of medical motivation is accepted, then democratic elitism is the most relevant theory.

There is an alternative interpretation, which makes it more difficult to see the use of professional power as benign and in the public interest. This begins by accepting government concerns about the non-responsiveness of the research councils to societal needs. From this perspective, it looks more as if members of the medical profession embedded in the state acted primarily in the interests of the profession. These interests were in the further advancement of the medical profession’s authority through scientism, a project that required the capture of substantial amounts of public money for research. Furthermore, this project referred to a scheme of values, set by the research community, under which research would be lauded for its scientific excellence first and its social usefulness second. If this interpretation seems more convincing, then radical elite theory seems more relevant.

For the HPSSR, SSR and other non-medical streams of research, elite theory is unconvincing. For these streams, administrators and professionals worked collaboratively to procure research that would be of relevance to both practitioners in the NHS and policy-makers. This project was subject to periodic destabilisation, arising from frequent reorganisation and the differing views of those members of the medical elite who served as Chief Scientist. The processes of research management may have felt laboured after 1973, but this was because multiple interest groups were involved. This can be seen most obviously in the RLG mechanism. For these non-medical streams, a neo-pluralist perspective seems more applicable.

Organisation for research

Legitimacy or task performance?

Sociological institutionalists argue that organisations will often place conformity with sector norms above consideration of task performance. This, they argue, confers legitimacy in conditions where it is difficult to be certain about the relationship between means and ends. At various points in this thesis it has been suggested that this might be true of the departmental R&D programme. The adoption by the Department of the research unit model could be interpreted as an example of ‘mimetic isomorphism’. It has been suggested that the Department’s interpretation of the customer contractor relationship for BMR placed ceremonial conformity above substance. This was because it didn’t want genuine control enough to make it worth alienating the MRC.

Against this, the evidence has shown that the Department did try very hard to arrive at satisfactory organisational arrangements for performing the task of HPSSR research commissioning. It re-organised itself with this goal in 1961, 1967, 1972, 1973, 1978 and 1986. Of these reorganisations, it seems reasonable to say that only those of 1973 and 1986 weakened its ability to commission R&D and only for the last does this appear to have been the aim, rather than an unintended consequence. Even the arrangements for BMR commissioning adopted in 1973 can be seen as directed towards task performance if the definition of the task is changed. Rothschild wanted it to be the commissioning of applied research through market-like exchanges. The medical elite was more interested in sustaining the ability of the MRC to continue working in the manner to which it was accustomed. From this perspective, the broad commissions performed in a way that was entirely satisfactory. The argument that conformity was placed above task performance does not really stand up in the face of these iterative attempts to arrive at the right organisational arrangements.

Another way of looking at this is to use the theory of ‘competing institutional logics’. This may further assist in explaining the mixed picture of continuity and change that has already been discussed. The constant institutional logic for the Department was the imperative to commission useful research. This drove research commissioning in the golden age and, for HPSSR, continued to drive it through to

1986 and beyond. The logic of commissioning ‘useful’ research drove stability and continuity. During the golden age, medical research commissioning activities fitted within this scheme, alongside non-medical research. Rothschild de-stabilised this situation. His recommendations amounted to an attempt to mobilise a managerialist set of institutional myths which promoted the belief that government should further develop its capacity to procure research through market-like transactions. The reforms that followed were layered on to the longer-standing institutional myths that had shaped MRC structure and practice. However, the professional response was to ‘buffer’ the pre-existing arrangement by putting in place structures and processes that were only loosely-coupled to the policy innovation. Later, Buller attempted what might be described as a reciprocal project, seeking to layer the values of the research councils onto the DHSS programme. This was prosecuted through his review of the research units using the criteria of ‘good science’ and his attempts to offload HPSSR onto the research councils. The response of the administrative civil service and of those members of the scientific community who were committed to ‘useful’ research was to buffer the HPSSR programme from these innovations by continuing with ‘business as usual’ until Buller went away. The theory of ‘competing institutional logics’ can thus be linked to that of the professionalised state and related to the differing dynamics between BMR and HPSSR streams to further develop an explanation of the mixture of continuity and change presented by the departmental programme.

Agency or structure?

Sociological institutionalism has been criticised by Hay and Wincott as exhibiting ‘latent structuralism’. They propose a historical institutionalist framework that allows us to examine the role of individual actors as both objects and agents of history. The idea of ‘strategic action’ is central to this approach. Actors take strategic action to achieve a desired outcome based on their understanding of context. However, their understanding of context is invariably imperfect and actors may misjudge the likely outcome of actions because they fail to appreciate the extent to which they are constrained by structural forces.

This theory may be helpful in interpreting the role of the principal actors in this history. This can be illustrated with reference to Buller, to take an individual who appears, on the face of it, to have had considerable agency as the first Chief Scientist

with executive powers. Buller's strategic actions were shaped by two core beliefs. First, that 'good science' should be the paramount criterion for any government research programme. Second, that the research councils would deliver the best science. These beliefs drove his strategy of arguing within the Department for the return of biomedical funds. For HPSSR, his strategic aim was to progressively offload onto the research councils. His strategy was to seek to persuade the MRC to take on a significant role in HSR and to provide financial incentives for this. In a bid to release funds that could be used to commission HSR from the MRC, he also pursued a strategy of seeking to reduce the number of DHSS-funded research units. Buller enjoyed considerable strategic success, not only securing the return of BMR funds but linking this to a new MRC obligation to develop its role in HSR. At first sight, then, Buller's individual agency was pivotal to change.

This observation must, however, be tempered by recognition of the extent to which his strategic action was both enabled and hindered by structural forces. Buller only became Chief Scientist because of the existence of elite networks and patronage. The return of biomedical research funds was resisted by most constituencies within the Department and was eventually achieved only because it was supported by the Permanent Secretary. Nairne's support was driven by scrutiny and accountability requirements. Buller believed that the MRC could be persuaded to take on a greater role in HSR but he underestimated the strength of the structural forces bearing upon the council, whose priorities were strongly influenced by the biomedical research community. Buller was thus both object and agent of history. The same can be said of other leaders in the history, although some appear closer to the agent end of the spectrum (Cohen, Godber, Gowans) and others to the object end (Pond).

Continuity and change

The contrast between change in the case of biomedical research and continuity in the case of HPSSR is striking. This is especially true when Buller's attempts to shift HPSSR towards the research councils are considered. Path dependency theory does seem helpful in interpreting this contrast. Both culture and economics sustained a departmental programme of HPSSR and allied commissioning through the Buller era and the 1980s. Buller was unable to divert these core streams of activity into a new path. In contrast, the combination of managerialism in government and the brusque

certainties of Rothschild were sufficient to cause a major change of path for biomedical research in 1973. This was a first critical juncture. The second followed within less than a decade, when a combination of MRC machinations and the logic of accountability was sufficient to cause a complete reversal of Rothschild for biomedical research.

Exchanges for health research

Models of research production

The MRC adhered to a knowledge-driven model of research production. The Department was committed to a problem-driven model. In the golden age, the policies of ‘enlightened patronage’ and the designation of research units meant that the departmental programme often allowed researchers to take the lead. This could be mistaken for a knowledge-driven approach, especially given the elements of MRC mimicry involved. However, even in this period the programme was problem-driven. Researcher-led proposals were always subject to the test of NHS usefulness.

The customer-contractor principle was an important construct in the institutional scheme of the managerial state. For the Department, the elevation of this principle to national science policy in the Rothschild reforms represented an affirmation of commissioning practices already adopted. For the MRC, it represented a fundamental challenge to its values. The response, as has been discussed, was that the medical profession closed ranks to ‘buffer’ the impact on BMR. For HPSSR, these issues never arose. The customer-contractor principle was always evident. The model was always explicitly problem-driven. The RLGs and other advisory groups were there to articulate and prioritise problems to be researched, as well as to review the findings from research.

The customer

The Department embraced the customer-contractor principle as supporting problem-driven research. However, the effort required to engage with internal customers seems to have left little space for thinking about how it might fulfil its role as a proxy customer for the NHS. This deficiency was linked to the limited attention paid to the dissemination and adoption of research findings. From the outset, the Department always seemed more concerned with the problem of commissioning new research than it was with the question of how to get research into policy and practice.

The neglect of these later stages seems to reflect the rather simplistic assumption that the involvement of customers in the process of research commissioning was sufficient. This, it was assumed, would translate into a sense of ownership that would mean that research findings would somehow be adopted into policy and practice development. Such assumptions were problematical enough even for policy customers within the Department. For the NHS, the wiring to connect research findings back to policy and practice was simply never installed.

The Department devoted considerable effort to engaging civil servants responsible for governance and service level policies in the commissioning process. Process for communicating the findings of research back to these individuals was formulated, although implementation was idiosyncratic. The question of how these individuals might then use any knowledge gained in their work of policy development remained unexamined. The Department appears to have remained in a state of blissful ignorance about contemporary critical thinking on the limited utility of research in policy making.¹ Even worse, it made no provision for the communication of research findings to those involved in the development of service and practice level policy in the NHS, an omission made all the worse by the view of researchers that their policy was of greatest relevance to clinical practitioners. Instead, there seems to have been unquestioning reliance on researchers themselves taking responsibility for dissemination. However, there were no incentives within the academic setting for researchers to assume this responsibility. The net effect of the Department's introspection and lack of critical thinking was that its R&D programme came to be seen as less relevant to the needs of the NHS as the 1980s progressed.

The remedy for these problems was, at intervals, identified as a Health Services Research Council or an Institute for Health Services Research. What proponents of such an institutional remedy were hoping for was not just an organisation that would be more independent of government in setting the research agenda, but also a body that would be less introspective in its engagement with the NHS. The Department consistently side-lined such proposals, setting control above any prospects for making research more useful.

1. Charles E. Lindblom and David K. Cohen, *Usable Knowledge*. (New Haven and London: Yale University Press, 1979). Collingridge and Reeve, *Science Speaks to Power*.

Concluding reflection

Based on the budget data series, the history of the Department's R&D programme between 1961 and 1986 has been described as one of meteoric rise followed by decline. The partial dismantling of Rothschild, an event unique to the DHSS/MRC relationship, supports this interpretation. We might also contrast the early 1970s optimism of the *Portfolios* with the bleak diagnosis of the House of Lords Select Committee in 1988. Our perceptions have been influenced by the work of Kogan and colleagues, which present the 'Rothschild experiment' at the DHSS as ending in failure. The downgrading of the Chief Scientist role in 1986, and the weakening of OCS, means that the history ends on a low note.

At the most basic level, a rise-and-decline narrative is obviously valid. But if biomedical research is set to one side, it becomes possible to view the history differently. The Department developed a moderately functional set of arrangements for research commissioning even before Rothschild. After some trial and error, it succeeded in implementing arrangements for HPSSR that were consistent with Rothschild's recommendations. Over the quarter century, it acted as the principal sponsor of HPSSR in England and Wales. As such, it was the moving force behind a large and diverse body of research outputs and an enhanced national capacity for health services research. Yet the Department's path to achieving these laudable outcomes was far from straightforward, being marked by many twists and turns. In his political history, Webster describes the DHSS as 'stumbling' towards a comprehensive planning system 'in its habitual erratic and indeterminate manner'.¹ Such a verdict could equally well be applied to attempts to develop organisation and policy for R&D. Yet it seems too simplistic to suggest that the tortuous path taken by the Department was due solely to habitual behaviours, limited competence, or administrative overload. A more convincing explanation is that the programme was buffeted by forces arising from its intrinsic and irreducible heterogeneity. The programme's distinctive nature meant that any organisation and policy for R&D had to accommodate significant differences, not least in the diverse structural interests bearing upon different fields of research.

1 Webster, *Political History*, 79.

The most obvious divergence in this respect was that between biomedical research and HPSSR. For biomedical research, the history is undeniably one of rise and reversal over a relatively brief period, with the two key events being the Rothschild reforms and the return of funds to the MRC in 1981. The latter was an exceptional event, occurring against the grain of national science policy. This strand of the history hinges on the power of medical research elites, and their ability and readiness to blunt science policy reform. For HPSSR, the history is very different, with the pattern of rise and reversal being less stark and played out over a longer period. Here the Rothschild reforms were partially anticipated by the Department and became more embedded over time, rather than being reversed. For this strand, the DHSS went with the grain of science policy and greater pluralism is evident. The contrast between biomedical research and HPSSR, and how these two dissimilar creatures of the health research state were yoked together, is central to the history of organisation and policy for research and development at the health department.

Appendix 1: methodology – longitudinal analysis

Data sources

No single, complete data series for R&D allocations to the health department has been published for the period 1961 to 1986. Construction of such a series requires the combination of data from more than one source. Four sources of data were considered for this purpose.

1. The annual reports of the Ministry of Health (1961 to 1968).
2. Annual reports on research and development produced by the DHSS (1973 to 1991)
3. Supply estimates (available for all years, but with significant limitations after 1982).
4. Cabinet Office Annual Reviews of government research and development (1982 to 1993).

Prior to 1968, some data relating to research are included in the annual reports of the Ministry of Health (source 1 above). However, these are fragmentary and this series was discontinued after the Ministry was merged into the DHSS.¹ The DHSS annual reports on R&D (source 2), which commenced in 1973, include a detailed analysis of ‘estimated expenditure’ for current and prior years until 1982, after which the analysis becomes highly summarised.² At first sight, these reports appear the most promising source for construction of a longitudinal data series for R&D expenditure. However, caution is needed. The Royal Statistical Society cautions against over-reliance on reports published by individual government departments because they suffer from lack of agreed standards and from inconsistency. This criticism is applied to departments in general, but the annual reports of the DHSS are singled out as

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1. See, for example, Cmnd. 3039. *Report of the Ministry of Health for the Year Ended 31st December 1965* (London: HMSO, 1966). Discussion is mostly confined to the Organisation & Methods programme of the Ministry. No data is provided on overall budgets or expenditure.
 2. The annual reports were called ‘The Annual Report on Departmental Research and Development’ between 1973 and 1976 after which the name was changed to ‘Research and Development Report and Handbook’ until 1988 when it became ‘Department of Health Yearbook of Research and Development’ until discontinued after 1991. All published by HMSO.

being particularly difficult to reconcile to national data.¹ Comparison of the annual reports with sources 3 and 4 above confirms that there is inconsistency in the figures reported in both the total R&D spend reported and in individual budget lines. Some of this is probably due to the differences between budget and outturn but, as the annual reports do not explain their methodology, this cannot be confirmed. The research expenditure of the Public Health Laboratory Service is also completely omitted from the DHSS report, even though this accounted for around a quarter of the global budget in the 1980s. Other less obvious omissions may also be present.

In view of these problems of incompleteness and unreliability, the decision was taken not to rely on the DHSS reports but to use instead the last two sources identified. Both were prepared on a cross-departmental basis by an authority that would have sought accuracy and consistency. Up to and including the financial year 1981/82, the Supply Estimates, published by H.M. Treasury, were used as the source. The Estimates do not provide enough detail to continue the longitudinal analysis beyond this year, so the Cabinet Office Annual Reports on Government Research and Development are used as the source thereafter.

The Supply Estimates represent the government's budget and provide a detailed breakdown of the public expenditure authorised by Parliament through the annual Appropriation Act. For most of the period, a table showing the research and development content in the Estimates by spending department was included in the Memorandum by the Financial/Chief Secretary to the Treasury.² The Memoranda can be cross-referenced to the full Supply Estimates, to obtain a more detailed breakdown of the allocation heads used in the former.

The Supply Estimates themselves were published as a large and highly detailed document which became weightier over time as the scale and complexity of government spending grew. By the end of the 1970s, the Estimates had grown to over one thousand pages and were coming under increasing criticism as unusable by parliamentarians.³ In response, the form of the Estimates was considerably simplified

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1. Bosworth, Wilson and Young, *Research and Development*. See chapter 3 for a review of pan-government sources and chapter 5 for an assessment of departmental sources.
 2. Financial Secretary up to and including 1969/70, Chief Secretary thereafter.
 3. House of Commons Treasury and Civil Service Committee. *The Form of the Estimates. Sixth Report (Session 1980-81)*, HMSO. HC 325, 1981.p.vi

after 1981/2, when much detail disappears altogether. Critically for current purposes, this includes both the R&D table in the Memorandum and the detailed breakdown of departmental sub-heads in the Estimates. After 1981/2, the Estimates cease to provide the detail needed to continue the data series for departmental R&D spending, necessitating the use of Cabinet Office reports thereafter.

In 1982, the House of Lords Select Committee on Science and Technology produced a report on ‘Science and Government’¹. In its response to this report, the Government made a commitment to the publication of annual reviews of government R&D activity to inform science policy and support scrutiny of this area through the Public Expenditure Survey Committee (PESC) process.² The Cabinet Office was assigned the task of producing this review, which first appeared in 1983 and ran until 1993. The Cabinet Office reviews provide detailed analysis of government R&D spending, starting with data for 1981/2, so that there is one year’s overlap before the Estimates cease to provide the level of detail sought.

In summary, the Memoranda and Supply Estimates are the source for departmental R&D budget for the period up to and including 1981/82 and the Cabinet Office Annual Reviews of Government Funded R&D are the source for 1982/83 onwards. Data for the Medical Research Council is also included in the analysis for comparative purposes and this is available from the Estimates for the whole of the period 1961 to 1986 as research council allocations were still itemised after 1981/82.

Only data relating to England and Wales was abstracted, as health research was dealt with throughout the study period by SHHD under separate organisational arrangements. After 1973, Scotland had its own Chief Scientist and Chief Scientist’s Organisation within SHHD but these devolved arrangements were not replicated in the Welsh Office. Votes for research carried out or commissioned by SHHD are shown under separate headings in the Estimates throughout, whereas those for the WO are not for the years between 1962/3 and 1970/1 or after 1980/1. Nor do the

1. House of Lords Select Committee on Science and Technology. *Science and Government, 1st Report 1981-1982 Session* HL (20-I), (London: HMSO, 1981).

2. Cmnd. 8591. *Science and Government. Government Observations on the First Report of the House of Lords Select Committee on Science and Technology (Session 1981-82)*, (London: HMSO, 1982).

Cabinet Office Annual Reviews disaggregate England and Wales when reporting on the R&D spend of the Department of Health and Social Security.

Consistency

Because of the need to combine two sources to construct a complete data series; and because of changes in the cost base used for preparation of the Estimates; there are some inescapable inconsistencies in the series. To understand these and assess their significance it is first necessary to understand the annual Estimates cycle.¹

The Estimates set the budget, or ‘control limit’, for each heading of departmental expenditure. They were negotiated between government departments and the Treasury and approved prospectively during the autumn session of parliament prior to the financial year in question. The sum approved was expressed at the prices current at that time and this approach is described as ‘Estimate at estimates prices’. In the event, the sum eventually spent, known as ‘outturn’, might differ from the original Estimates. Any over-spend required the voting of Supplementary Estimates. One cause of overspends was price inflation, which rose steeply after the oil price shock of 1973. From 1979/80 onwards, the government began to set the Estimates to include an allowance for predicted inflation and at the same time began to treat them as hard cash limits. This approach is referred to as ‘Estimates at outturn prices’. In constructing the series, the decision was taken to use original Estimates rather than outturn because the detailed Supply Estimates include only the original ‘Estimates at estimates prices’ as a prior year comparative.

For the years after 1981/2 it is necessary, for the reasons explained, to switch to the Cabinet Office annual reviews of government-funded research and development as the data source. These report a mix of historic outturn and plan. Unfortunately, the data is not entirely reliable, at least in the earliest reports, as the first report in the series candidly admits.² This is manifest in the restatement, sometimes more than once, of historic outturn figures. This practice disappears after 1985 and the figures stabilise. In view of this early instability, the approach adopted was to use the last

1. Bosworth et al., *Research and Development*, 57-58.

2. Cabinet Office. *Annual Review of Government Funded R&D*, HMSO, 1983.

published outturn data for any year. So, for example, outturn data for 1985/6 is taken from the 1988 edition of the Annual Review.

The Annual reviews also include a mix of outturn and plan figures for the MRC, enabling a comparison of Estimates at outturn prices and actual outturn, which is not possible for the Department. Comparison of Estimates and outturn for the MRC reveals only minor differences. A sample comparison between original Estimates and adjusted estimates for the Departmental budget, using the Memoranda, also indicates immaterial differences. The conclusion drawn is that the inescapable inconsistency arising from the combination of data from the Estimates and the Cabinet Office annual review is not material to the objectives set for the analysis.

Price base

Adjustment of the data series to a constant price basis is necessary, given the exceptionally high levels of inflation experienced in the UK during this period. Arriving at an appropriate deflator for the National Health Service is problematical and, in any event, NHS-specific estimates of inflation would not necessarily be valid for this series given the significant involvement of non-NHS providers in research and development.¹

In view of these considerations, and the limited choice of price index series available for this period, a pragmatic approach was taken and the Retail Price Index (RPI) was adopted as the deflator.² Table A1.1 summarises the sources, data item and price index used for the longitudinal analysis of the departmental research and development budget.

1. Appleby, *Government Funding of the UK National Health Service*.

2. Office for National Statistics. *Economic Trends, Annual Supplement*, 2005. Table 2.1

Table A1.1 Basis of longitudinal data series

Period	1961/2 to 1978/9	1979/80 to 1981/2*	1981/2* to 1985/6
Source	Supply Estimates (H.M. Treasury)	Supply Estimates (H.M. Treasury)	Annual Review of Government R&D (Cabinet Office)
Data item	Estimates at estimates prices	Estimates at outturn prices	Outturn at outturn prices
Price index	RPI Q3 in the calendar year prior to the start of the financial year	RPI Q3 in the calendar year during which the financial year starts	RPI Q3 in the calendar year during which the financial year starts

* *overlap in 1981/2*

Analysis at sub-head level

The Estimates are organised into classes with up to four levels of sub-head analysis. The sum allocated, or the ‘vote’, for a certain purpose can thus be identified at these various levels. The Memoranda identify the relevant class and sub-heads for research commitments. In some instances, the Memoranda itemise the research and development element of a particular vote and, in this case, provide a finer granularity of analysis than is available from the Supply Estimates. Elsewhere the opposite is true, and a lower level of sub-head analysis is available in the Supply Estimates. For the purposes of the analysis presented in chapter 4 the lowest level of analysis was sought, so both Memoranda and Supply Estimates were used together.

Tracking data in the Estimates presents two challenges. The numbering of classes and sub-heads changes from time to time as do the descriptors used for data items at each level. Fortunately changes in both descriptors and numbering rarely occur in the same year and there is sufficient consistency in the original descriptors to be able to

track data series throughout the period with confidence. A standardised descriptor has been adopted for each data series to overcome the instability and, in some cases, obscurity in the original descriptors. Table A1.2 maps these back to the Estimate classes, sub-heads and original descriptors. Cross referencing to the charts in chapter 4 is also included.

The Cabinet Office annual reviews provide a simpler disaggregation of overall spending with consistent use of headings and so these challenges do not arise when working with this source.

The global budget for civil research

Quantifying the overall civil R&D budget on a consistent basis over the whole period is problematical because of a blurred boundary between civil and military research, especially in the earlier years. Between 1960/1 and 1966/7 the allocations for the ‘civil’ research undertaken by the Ministry of Aviation are included in the Civil Estimates and this one department accounts for around three quarters of the total government ‘civil’ research budget in the early 1960s. However, Aviation supported research that had both civil and military applications, for example in electronics, and these two purposes cannot be disentangled given the lack of detail in the Estimates. Defence projects were sometimes intentionally reclassified as ‘civil’ against a political backdrop that included commitments from both parties to redeploy resources from defence to civil purposes.¹ Consequently, the reported civil defence budget for the early 1960s includes material *de facto* defence elements and is overstated when compared with that for later years.

This point can be illustrated by the first report of the Council for Scientific Policy (CSP). Perhaps mindful of the unreliability of the Estimates, the Council conducted its own survey and, on this basis, published a figure of £136.9 million for civil research spending in 1961/2. This sum includes only £19.9m for the Ministry of Aviation, presumably reflecting the purely civil activities of that Department.² In contrast, the total research allocations reported in the civil estimates for 1961/2 are £289 million, including £210 million for the Ministry of Aviation and £38 million for

1. Vig, *Science and Technology in British Politics*, 57-58.

2. Cmnd. 3007. *Report on Science Policy*. Council for Scientific Policy (London: HMSO, 1966).

service departments.¹ Because of the distorting effects of Aviation, the Council for Scientific Policy figure has been taken as the more reliable baseline for current purposes.²

The Council did not use further surveys to inform its subsequent reports, but instead cited figures taken directly from the Memoranda, suggesting greater confidence that civil and defence spending had been disentangled in later periods.³ Policy to rebalance the government R&D budget was accompanied by a more transparent presentation in the Estimates. From 1967/8 onwards, the R&D table in the Memoranda includes a sub-total for defence spending and this can be deducted from the total to give a more consistent estimate of civil R&D spending. In arriving at the data series used in chart 4.5, the figure for atomic energy research was also deducted, as this would also have had mixed civil/defence application, together with the allocations for Concorde which, for a period, were so large (around £50 million p.a. in the late 1960s) as to be distorting of the underlying trends.

Between the CSP survey for 1961/2 and the more transparent presentation adopted in the Memoranda from 1967/8 onwards the position remains opaque, with the mixed civil and defence activities of the Ministry of Aviation being the main problem. For the years in-between, a straight-line interpolation between 1961/2 CSP survey figures and 1967/8 Memoranda figures was used to arrive at an approximate figure for the total civil R&D budget. This approach is unlikely to create any significant unreliability in findings as it only applies to five years, during which the rate of growth was relatively modest at around £10 million per annum. Thereafter the Memoranda, adjusted as described, can be used with reasonable confidence.

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1. HC (104) 1961-62 civil estimates and estimates for revenue departments for the year ending 31st March 1962 pages 18-21
 2. The Dainton Report arrived at a figure of £139.3m for total government funding of civil research in 1961/62, which provides some corroboration for this choice of baseline. Cmnd. 4814, 42.
 3. Cmnd. 5117. *Third report of the Council for Science Policy*. Council for Scientific Policy. London, HMSO.

TABLE A1.2: Top level analysis of R&D budgets: data series mapped to Estimates

Data Series 1 Charts 4.1, 4.2, 4.3		Standardised descriptor: Hospital-based research, including computers, by Hospital Authorities		
Level of analysis Source Year ↓	1 Estimates class	2 Estimates class sub-head (1)	3 Estimates class sub-head (2)	4 Memoranda
1967/68 to 1969/70	VI Local Government, Housing and Social Services	VI. 11 National Health Services (Hospital Services) England and Wales	VI.11. A Hospitals advances on current account VI.11. B Hospitals advances on current account	Provided in the Memoranda
1970/71	VI Local Government, Housing and Social Services	VI. 12 National Health Services (Hospital Services) England VI. 16 National Health Services (Hospital Services) Wales	VI.12. A Hospitals advances on current account VI.12. B Hospitals advances on current account VI.16.A Health Services Research by hospitals, Special Medical Developments (Wales)	Provided in the Memoranda

Data Series 1 Charts 4.1, 4.2, 4.3		Standardised descriptor: Hospital-based research, including computers, by Hospital Authorities		
Level of analysis Source Year ↓	1 Estimates class	2 Estimates class sub-head (1)	3 Estimates class sub-head (2)	4 Memoranda
1971/72 to 1973/74	VII Social Services	VII. 2 National Health Services (Hospital Services) England VII. 6 National Health Services (Hospital Services) Wales	VII. 2. A Hospitals advances on current account VII. 2. B Hospitals advances on current account VII. 6.A Health Services Research by hospitals, Special Medical Developments (Wales)	Provided in the Memoranda
1974/75 to 1978/79	XI Health and Personal Social Services	XI.1 Health and Personal Social Services England XI.4 Health and Personal Social Services Wales	XI. 1. A Hospital developments including computers by health authorities: England XI. 4. A Hospital developments including computers by health authorities: Wales	Not available

Data Series 1 Charts 4.1, 4.2, 4.3		Standardised descriptor: Hospital-based research, including computers, by Hospital Authorities		
Level of analysis	1	2	3	4
Source	Estimates class	Estimates class sub-head (1)	Estimates class sub-head (2)	Memoranda
Year ↓				
1979/80	XI Health and Personal Social Services	XI.1 Health and Personal Social Services England	XI. 1. A Special development capital	Not available

Data Series 2 Charts 4.1, 4.3, 4.4		Standardised descriptor: Centrally commissioned health and personal social services research		
Level of analysis Source Year ↓	1 Estimates class	2 Estimates class sub-head (1)	3 Estimates class sub-head (2)	4 Estimates class sub-head (3)
1961/62	V Health, Housing and Local Government	V.5 National Health Service England and Wales	V.5 D & DD Other expenditure	V.5 D.2 & DD2 Expenses in connection with research England and Wales (s16, 1946 Act)
1962/63 to 1966/67	VI Local Government, Housing and Social Services	VI. 16 Miscellaneous Health and Welfare Services England and Wales	VI.16. A Laboratory, Vaccine and Research Services	VI.16. A6 Research Further disaggregated at Estimates class sub-head (4)
1967/68 to 1969/70	VI Local Government, Housing and Social Services	VI. 13 Miscellaneous Health and Welfare Services England and Wales	VI.13. A Laboratory, Vaccine and Research Services	V1.13. A6 Research Further disaggregated at Estimates class sub-head (4)
1970/71	VI Local Government, Housing and Social Services	VI. 14 Miscellaneous Health and Welfare Services England VI. 16 National Health Services etc Wales	VI.14. A Laboratory, Vaccine and Research Services England VI.16. I Laboratory, Vaccine and Research Services Wales	VI.14. A6 Research VI.16. I4 Hospital clinical research Both further disaggregated at Estimates class sub-head (4)

Data Series 2 Charts 4.1, 4.3, 4.4		Standardised descriptor: Centrally commissioned health and personal social services research		
Level of analysis Source Year ↓	1 Estimates class	2 Estimates class sub-head (1)	3 Estimates class sub-head (2)	4 Estimates class sub-head (3)
1971/72 to 1973/74	VII Social Services	VII. 4 Miscellaneous Health and Welfare Services England VII. 6 National Health Services etc Wales	VII. 4. A Laboratory, Vaccine and Research Services VII. 6. I Laboratory, Vaccine and Research Services	VII.4. A6 Research (England) VII.6. I4 Research (Wales) Both further disaggregated at Estimates class sub-head (4)
1974/75 to 1979/80	XI Health and Personal Social Services	XI.1 Health and Personal Social Services England XI.4 Health and Personal Social Services Wales	X1.1.J Research England XI.4.I Research Wales	X1.1.J3 Centrally arranged R&D XI.4.I1 Centrally commissioned research Welsh Office Both further disaggregated at Estimates class sub-head (4)

Data Series 2 Charts 4.1, 4.3, 4.4		Standardised descriptor: Centrally commissioned health and personal social services research		
Level of analysis	1	2	3	4
Source	Estimates class	Estimates class sub-head (1)	Estimates class sub-head (2)	Estimates class sub-head (3)
Year ↓				
1980/81 to 1981/82	XI Health and Personal Social Services	XI.1 Health and Personal Social Services England	XI.1.I Research ¹	XI.1.I Centrally-commissioned research DHSS

Notes

1. No research is separately itemised for Wales under sub-head XI.4 so this can be assumed to be both England and Wales. The memorandum describes this category as 'Research carried out or commissioned centrally: Department of Health and Social Security'.

Data Series 3 Charts 4.1, 4.2		Standardised descriptor: Centrally commissioned supplies and equipment research		
Level of analysis Source Year ↓	1 Estimates class	2 Estimates class sub-head (1)	3 Estimates class sub-head (2)	4 Memoranda or Estimates class sub-head (3)
1962/63	VI Local Government, Housing and Social Services	VI. 14 National Health Services (Hospital, etc. Services) England and Wales	VI.14. N Supply and repair etc. of artificial limbs and appliances etc.	Part of vote as itemised in memoranda
1963/64 to 1966/67	VI Local Government, Housing and Social Services	VI. 14 National Health Services (Hospital, etc. Services) England and Wales	VI.14. K Hospital supplies and equipment VI.14. L Supply and repair etc. of artificial limbs and appliances etc.	Part of vote as itemised in memoranda
1967/68 to 1969/70	VI Local Government, Housing and Social Services	VI. 11 National Health Services (Hospital, etc., Services) England and Wales	VI.11. K Hospital supplies and equipment VI.11. L Supply and repair etc. of artificial limbs and appliances etc.	Part of vote as itemised in memoranda

Data Series 3 Charts 4.1, 4.2		Standardised descriptor: Centrally commissioned supplies and equipment research		
Level of analysis Source Year ↓	1 Estimates class	2 Estimates class sub-head (1)	3 Estimates class sub-head (2)	4 Memoranda or Estimates class sub-head (3)
1970/71	VI Local Government, Housing and Social Services	VI. 12 National Health Services (Hospital Services) England	VI.12. L Hospital supplies and equipment VI.12. N Supply and repair of artificial limbs and appliances etc.	Part of vote as itemised in memoranda
1971/72 to 1973/74	VII Social Services	VII. 2 National Health Services (Hospital Services) England	VII. 2. L Hospital supplies and equipment VII. 2. N Supply and repair etc. of artificial limbs and appliances etc	Part of vote as itemised in memoranda
1974/75 to 1981/82	XI Health and Personal Social Services	XI.1 Health and Personal Social Services England	X1.1. J Research England	X1.1. J1 Assessment and development of supplies and equipment (part of vote as itemised in memoranda). X1.1. J3 Biomechanical Research and Development Unit

Data Series 4 Charts 4.1, 4.2		Standardised descriptor: Ministry of Health/Department of Health and Social Security research salaries		
Level of analysis Source Year ↓	1 Estimates class	2 Estimates class sub-head (1)	3 Estimates class sub-head (2)	4 Memoranda or Estimates class sub-head (3)
1962/63	VI Local Government, Housing and Social Services	VI. 12 Ministry of Health	VI.12. B General administrative expenses	Provided in the Memoranda
1970/71	VI Local Government, Housing and Social Services	VI. 2 Department of Health and Social Security	VI. 2. A Salaries	Provided in the Memoranda
1971/72 to 1973/74	VII Social Services	VII. 1 Department of Health and Social Security	VII. 1. A Salaries	Provided in the Memoranda
1974/75 to 1981/82	XII Social Security	XII. 5 Administration and miscellaneous services: Department of Health and Social Security XII. 24 Administration and miscellaneous services: Welsh Office	XII.5. A Administration XII.24. A Administration	Provided in the Memoranda

Data Series 5 Charts 4.1, 4.2		Standardised descriptor: Public Health Laboratory Service (research)		
Level of analysis Source Year ↓	1 Estimates class	2 Estimates class sub-head (1)	3 Estimates class sub-head (2)	4 Estimates class sub-head (3)
1968/66 to 1969/70	VI Local Government, Housing and Social Services	VI. 13 Miscellaneous Health and Welfare Services England and Wales	VI.13. A Laboratory, Vaccine and Research Services	V1.13. A1 Public Health Laboratory Service (part of vote as itemised in memoranda)
1970/71	VI Local Government, Housing and Social Services	VI. 14 Miscellaneous Health and Welfare Services England	VI.14. A Laboratory, Vaccine and Research Services England	VI.14. A1 Public Health Laboratory Service (part of vote as itemised in memoranda)
1971/72 to 1973/74	VII Social Services	VII. 4 Miscellaneous Health and Welfare Services England	VII. 4. A Laboratory, Vaccine and Research Services	VII.4. A1 Public Health Laboratory Service (part of vote as itemised in memoranda)
1974/75 to 1979/80	XI Health and Personal Social Services	XI.1 Health and Personal Social Services England	XI. 1. E Laboratory, Vaccine and Medicines Act Services	XI.1.E1 Public Health Laboratory Service (part of vote as itemised in memoranda)
1980/81	XI Health and Personal Social Services	XI.1 Health and Personal Social Services England	XI. 1. E Laboratory, Vaccine and Medicines Act Services	XI.1.E1 PHLS (part vote as itemised in memoranda)

Appendix 2: schemes of classification

Portfolio for Health, vol.1, 1971

1. Medical, social and operational research.
2. Service developments.
3. Equipment, supplies and appliances research and development.

Portfolio for Health, vol.2, 1973

1. The mother and infant
2. The handicapped child
3. The deprived child
4. The handicapped adult
5. The deprived adult
6. The mentally ill
7. The addicted
8. The elderly
9. The physically sick
10. Maintenance of physical health
11. Maintenance of mental health
12. Incidence, prevention, and treatment of specific diseases and conditions
13. Supporting services
14. Allocation of resources: cost studies
15. Medical technology
16. Social science techniques
17. Professional education and staff recruitment, training, and conditions
18. Management and organization of services
19. Evaluation of services and standards of care
20. Record and information systems
21. NHS Experimental Computer Programme
22. Public response and attitudes to services
23. Decentralization of research administration

Research and Development Report and Handbook 1977, DHSS (Appendix 1)

- A. Health and Personal Social Services Research
 - 1. Health Services
 - a. Public and Environmental Health (PHLS)
 - b. Planning and Organisation
 - c. Hospital Services
 - d. Nursing Services
 - e. Primary Health Care
 - f. Personnel
 - 2. Personal Social Services
 - a. Children
 - b. Mental Health
 - c. Social Handicap
 - d. Local Authority Social Services
 - e. Miscellaneous

- B. Other research programmes
 - 3. Research by DHSS Social Research Branch
 - a. Health and Personal Social Services
 - b. Social Security
 - 4. Social Security Research (commissioned)
 - 5. NHS Building and Engineering
 - 6. NHS Equipment, Appliances and Supplies.
 - 7. NHS Computer R&D
 - 8. Medical Research Council (commissioned biomedical)
 - 9. Locally Organised Research Scheme.

Cabinet Office Annual Report of Government R&D, 1986, (Table 7a)

- 1. PHLS
- 2. NHS Equipment Appliances and Supplies
- 3. Health and Personal Social Services
- 4. Social Security
- 5. NHS Information Technology R&D
- 6. Building and Engineering R&D

Appendix 3: DHSS-funded research units

1973: designated research units

Unit	Director(s)
The Wolfson Research Laboratories Department of Clinical Chemistry University of Birmingham	Professor T P Whitehead
Health Services Organisation Research Unit Institute of Organisation and Social Studies Brunel University	Professor E Jaques
Health Services Organisation Research Unit Social Services Organisation Research Unit Brunel University	Dr R W Rowbottom
The Institute of Biometry and Community Medicine University of Exeter	Professor J R Ashford Dr N G Pearson
Health Services Research Unit University of Kent	Professor M D Warren
The Addiction Research Unit Institute of Psychiatry University of London	Dr J G Edwards
The Special Hospitals Research Unit Institute of Psychiatry University of London	Dr T G Tennent
The Social Medicine and Health Services Research Unit St Thomas's Hospital Medical School	Professor W W Holland
The Medical Care Research Unit University of Newcastle upon Tyne	Professor D J Newell Dr J H Walker
The MRC/DHSS Epidemiology and Medical Care Unit Northwick Park Hospital	Dr T W Meade

Source: McLachlan (ed.), Portfolio 2, 244-250

1985: units and other groups on rolling contracts

Unit	Director
Department of Epidemiology and Social Research, University Hospital for South Manchester South Manchester Health Authority	Professor E Alwyn Smith
Oxford Rehabilitation Research Unit, Nuffield Orthopaedic Centre Oxfordshire Health Authority	Dr G M Cochrane and P T Davies
Nuffield Orthopaedic Centre Oxfordshire Health Authority	Dr A Young
The Social Medicine and Health Services Research Unit, St Thomas's Hospital Medical School West Lambeth Health Authority	Professor W W Holland
Health Care Evaluation Research Team Wessex Health Authority	Dr A Kushlick
Health Services Research Unit Department of Social Medicine University of Birmingham	Professor E G Knox
Wolfson Research Laboratories Department of Clinical Chemistry University of Birmingham	Mr P M G Broughton
Department of Psychiatry University of Birmingham	Professor I F Brockington
Dartington Social Research Unit University of Bristol	Spencer Millham
CASPE Research	Dr I Wickings
DHSS Special Hospitals Research Programme	Dr M J MacCulloch
Personal Social Services Research Unit University of Kent	Professor Bleddyn Davies
Nursing Education Research Unit Chelsea College University of London	Professor Jack Hayward
Department of Medicine Guy's Hospital Medical School University of London	Professor H Keen
Thomas Coram Research Unit Institute of Education University of London	Professor B Tizzard
General Practice Research Unit Institute of Psychiatry University of London	Professor M Shepherd

Unit	Director
Department of General Practice University of Manchester	Professor D Metcalfe
Hester Adrian Research Centre University of Manchester	Professor C C Kiernan
National Children's Bureau	Dr R Davie
National Institute for Social Work	Dr I Sinclair
Health Care Research Unit University of Newcastle upon Tyne	Professor D J Newell
Blind Mobility Research Unit, Department of Psychology University of Nottingham	Professor C I Howarth
National Perinatal Epidemiology Unit University of Oxford	Dr I Chalmers
Department of Community Medicine and General Practice, Unit of Clinical Epidemiology University of Oxford	Dr M J Goldacre
Childhood Cancer Research Group, University of Oxford	Dr G J Draper
Oxford Orthopaedic Engineering Centre, University of Oxford	J D Harris
General Practice Research Unit Royal College of General Practitioners	Dr D L Crombie
Medical Care Research Unit Department of Community Medicine University of Sheffield	Professor B T Williams
Southampton Psychiatric Case Register Faculty of Medicine University of Southampton	Professor J L Gibbons
Nursing Practice Research University University of Surrey	Professor R Crow
Department of Social Theory and Institutions University College of North Wales, Bangor	Dr G W B Grant
Mental Handicap in Wales – Applied Research Unit University of Wales College of Medicine	R Blunden
Research Team for the Care of the Elderly University of Wales College of Medicine	Dr N J Vetter
DHSS Health Economics Research University of York	Professor A K Maynard
Social Policy Research Unit University of York	Professor J Bradshaw

Source: DHSS Handbook of Research and Development 1985, 63-77.

Appendix 4: research liaison groups 1985

DHSS Research Liaison Groups (RLGs) and analogous committee as at 1 June 1985. Reproduced from DHSS Handbook of Research and Development 1985 (London: HMSO), Appendix 4. Qualifications detailed and naming conventions retained to show professional and gender mix.

Children's RLG (Health)

Chairman: Firth, Mrs J M

Scientific Advisers: Cartwright, Dr Ann, BSc PhD

Catterall, Dr R D, MRCS FRCP CBE

Culyer, Professor A J, BA

Fairweather, Professor D V I, MB ChB MD FRCOG

Ferguson-Smith, Professor M A, MB ChB FRCP FRCPath FRSE FRS

Hull, Professor D, MB ChB FRCP DCH

Knox, Professor E G, MB BS MD FRCP FFCM

Parry-Jones, Dr W, BChir MB MD

Stacey, Professor M, BSc

Turnball, Professor A C, CBE MB ChB MD FRCOG

Service Advisers: Chant, L E J, SEN RMN CSW Cert PSW (Personal Social Services)

Elderly RLG

Chairman: Scott Whyte, S

Scientific Advisers: Clarke, Professor M, MB BS MRCS LRCP FFCM DPH

Grimley Evans, Professor J, MA MB BChir FRCP FFCM

Taylor, Dr R, BA PhD

Service Advisers: Cox, Dr J R, MD FRCP MRCGP, MRC(Psych) (Medical)

Conway-Nicholls, Mrs K M, SRN SCM HV NDN FPAC (Nursing)

Parker, Mrs A, BA DSA (Personal Social Services)

Forensic Psychiatry RLG

Chairman: Harrison, B A ChB MRC(Psych) DPM

Scientific Advisers: Gunn, Professor J C, MD MB ChB MRC(Psych) DPM

MacCulloch, Dr M J, MD MB ChB

Trasler, Professor G, MA BSc PhD FBPsS

West, Professor D J, MD DPM MA PhD LittD

Service Advisers: Bluglass, Professor R S, MD MB ChB FRCPsych DPM (Medical)

Homelessness and Addictions RLG

Chairman: Shaw, Mrs E A

Scientific Advisers: Goody, Dr Esther, BA PhD

MacGregor, Dr Susanne, MA PhD

Orford, Dr J, MA PhD

Thorley, Dr A, MA MB FRCPsych

Service Advisers: Hudson, Miss P, SRN (Nursing)

Scerri, V J P (Personal Social Services)

Local Authority Social Services RLG

Chairman: Scott Whyte, S
Scientific Advisers: Gostick, C, CQSW MSc
Parker, Professor R, BSc PhD
Willmot, P, BSc
Service Advisers: Crook, J M, MSc, BSc, MBASW (Personal Social Services)

Mental Handicap RLG

Chairman: Pearson, Mrs M A J
Scientific Advisers: Dr K A Day, MA ChB FRCPsych DPM
Connolly, Professor K, BSc PhD FBPsS
Newson, Dr E, BA PhD
Bayley, Dr M J, MA PhD Dip Soc
Towell, Dr D, PhD MA
Wing, Dr L, MD MB BS MRCS LRCP MRCPsych DPM
Service Advisers: Graves, R A, SRN RMN RNMS BTA (Nursing)
Rodgers, Dr J S, MA MB BChir MB ChB FFCM D Obst RCOG DPH (Medical)
Wills, R, BA DSA DMH (Personal Social Services)

Mental Illness RLG

Chairman: Williamson, Mrs P M
Scientific Advisers: Bergmann, Dr K, MD MB ChB DPM FRCPsych
Bulmer, Dr M, BSc
Kolvin, Professor I, BA MD MB BCh, FRCPsych
Miller, Dr E, BSc MPhil PhD
Paykel, Professor E S, MD MB ChB FRCP FRCPsych DPM
Roberts, Dr J, MSc PhD
Wing, Professor J K, PhD MD MB BS DPM FRCPsych
Service Advisers: Vacancy (Medical)
Charlesworth, Mrs M, RMN SRN (Nursing)
Tombs, D, CSS (Personal Social Services)
Kolvin, Professor I, NA MD MB BCh, FRCPsych (Child Psychiatry Sub-Group)

Nursing RLG

Chairman: Poole, Mrs A
Scientific Advisers: Davies, Dr C, BA MA PhD
Bond, Dr S, BA MSc PhD RCN FRCN
Reed, Dr V, BEd MA PhD RCN FRCN
Wallis, Professor D, BSc FBPsS
Wragg, Professor E C, BA MEd PhD
Service Advisers: McNair, Miss E M, BA MEd Phd (Medical)
Vacancy (Nursing)

Physical Disablement RLG

Chairman: Orton, R M
Scientific Advisers: Alberman, Professor Eva, MA MD
Hartley, Dr K, BSc PhD
Sellick, R J, MB BChir FRCS
Sinclair, Dr I, PhD
Tobin, Dr M J, PhD
Wood, Professor P H N, MB BS FRCP FFCM
Service Advisers: Clarke, Dr A K, BSc MB BS MRCP (Medical)
McEnroe, J P (Nursing)
Vacancy (Personal Social Services)

Primary Health Care Research Advisory Group

Chairman: Firth, Mrs J
Scientific Advisers: Crow, Professor Rosemary, PhD MA SEN SCM HV
Farrell, Mrs C, BSc
Freeling, Dr P, OBE MB BS FRCGP
Gravelle, H, B Comm
Russell, Dr I, MA MSc PhD
Dunnell, Ms K, BSc
Hemsworth, Professor B, B Pharm PhD MPS
Williams, Professor B, MD FFCM DPH DPM
Service Advisers: Hewitt, P, BA DipSoc
Moore, Dr P, BSc MB BCh DPH DObst RCOG FFCM QHP
Reddington, Miss J, SRN SCM HV DNS
Richards, Dr Jane, MBBS DCH FRCGP

Social Security Research Policy Committee

Chairman: Otton, Sir Geoffrey KCB
Scientific Advisers: Bradshaw, Professor J, BSc MA DPhil
Holt, Professor D, BSc PhD
Jowell, Professor R, BA
Piachaud, D, BA MPA
Sinfield, Professor A, BA Dipl Soc Admin

Supply RLG

Chairman: Higson, G R
Scientific Advisers: Chamberlain, Dr Anne, BSc MB BS MRCP
England, Dr A G, MB ChB
Marks, Professor V, MA DM FRCP FRCPath
Melrose, Professor D, MA BM BCh FRCS MRCP
Wells, Dr P N T, MSc DSc PhD FIEE C Eng

Physically Handicapped and Audiology Sub-Group

Chairman: Harley, J
Scientific Advisers: Chamberlain, Dr Anne, BSc MB BS MRCP
Haggard, Professor M P, PhD MA FIOA FASA FI Mech E
McEwen, E, CBE DSc C Eng FI Mech E FASME FRSE

Physics and Electrical Engineering Sub-Group

Chairman: Harris, M A
Scientific Advisers: Clifton, J, MSc FInst P BSc
Marks, Professor V, MA DM FRCP FRCPath
Meire, Dr H, MB BS LRCP MRCS DMRD DObstRCOG FRCR
Wells, Dr P N T, MSc DSc PhD FIEE C Eng

General Sciences and Dental Sub-Group

Chairman: Winterton, Miss P M C
Scientific Advisers: England, Dr A G, MB ChB BFC
Melrose, Professor D, MA BM BCh FRCS MRCP

Building and Engineering R&D Committee

Chairman: Bolton, J, CB
Scientific Advisers: Reiners, W J, BSc
Weeks, J, AA Dipl RIBA

Chief Scientist's Advisers on Unemployment and Health Research

Scientific Advisers: Holland, Professor W W, MD BS BSc FRCP
Layard, Professor P G, BA MSc
Stevenson, Professor Olive, MA

National Childhood Development Study

Scientific Advisers: Blaxter, Lady Mildred, MA
Taylor, Dr R, BA PhD

Appendix 5: principal office holders

Chief Scientist, Department of Health and Social Security

Dr Richard H. L. Cohen (1907-1998)	October 1972 to 31 March 1973
Sir Douglas A. K. Black (1913-2002)	1 April 1973 to April 1977
Professor Arthur Buller (b.1923)	1 August 1978 to 31 July 1981
Sir Desmond A. Pond (1919-1986)	1 June 1982 to 31 March 1986

Chief Medical Officer, Ministry of Health/Department of Health and Social Security

Sir George Godber (1908-2009)	1960 to 1973
Sir Henry Yellowlees (1919-2006)	1973 to 1983
Sir E. Donald Acheson (1926-2010)	1983 to 1991

Secretary, Medical Research Council

Sir Harold Himsworth (1905-1993)	1949 to 1968
Sir John Gray (1918-2011)	1968 to 1977
Sir James L. Gowans (b.1924)	1977 to 1987

Ministers of Health/Secretaries of State for Social Services/Health and Social Security

J. Enoch Powell (1912-1998)	1960 to 1963
Anthony Barber (1920-2011)	1963 to 1964
Sir Kenneth Robinson (1911-1996)	1964 to 1968
Richard H. S. Crossman (1907-1974)	1968 to 1970
Sir Keith Joseph (1918-1994)	1970 to 1974
Barbara Castle (1910-2002)	1974 to 1976
David Ennals (1922 to 1985)	1976 to 1979
Patrick Jenkin (1926-2016)	1979 to 1981
P. Norman Fowler (b.1938)	1981 to 1987

Permanent Secretaries, Ministry of Health/Department of Health and Social Security

Sir Bruce Fraser (1901-1993)	1960 to 1964
Sir Arnold France (1911-1998)	1964 to 1968
Sir Clifford George (1909-1995)	1968 to 1970
Sir Philip Rogers (1914-1990)	1970 to 1975
Sir Patrick Nairne (1921-2013)	1975 to 1981
Sir Kenneth Stowe (1927-1925)	1981 to 1987

Sources

Archives

The National Archives, Kew, London:

BN Department of Health and Social Security.

CAB Cabinet Office (including Civil Service Department).

FD Medical Research Council

MH Ministry of Health/ Department of Health and Social Security.

T HM Treasury.

The Wellcome Archive, Douglas Black Papers.

Official publications

Cabinet Office. *Annual Review of Government Funded R&D*, HMSO, 1983.

Cabinet Office. *Annual Review of Government Funded R&D*, London: HMSO, 1984.

Cd. 9230. *Report of the Machinery of Government Committee*. Ministry of Reconstruction. London: HMSO, 1918.

Cmd. 8876. *Report of the Medical Research Council for the year 1951-52*. Committee of Privy Council for Medical Research. London: HMSO, 1953.

Cmd. 9663. *Report of the Committee of Enquiry into the Cost of the National Health Services*. London: HMSO, 1956.

Cmnd. 806. *Report of the Ministry of Health for the Year Ended 31st December 1958: Part 1*. London: HMSO, 1959.

Cmnd. 1432. *Control of Public Expenditure*. Chancellor of the Exchequer: HMSO, 1961.

Cmnd. 1604. *A Hospital Plan for England and Wales*. Ministry of Health, HMSO, 1962.

Cmnd. 1754. *Report of the Ministry of Health for the Year Ended 31st December 1961: Part 1*. London: HMSO, 1962.

Cmnd. 1973. *Health and Welfare: the Development of Community Care*. HMSO: London, 1963.

Cmnd. 2171. *Report of the Committee of Enquiry into the Organisation of Civil Science, under the chairmanship of Sir Burke Trend*. London: HMSO, 1963.

Cmnd. 2389. *Report of the Ministry of Health for the Year Ended 31st December 1963*. London: HMSO, 1964.

Cmnd. 2688. *Report of the Ministry of Health for the Year Ended 31st December 1964*. London: HMSO, 1965.

Cmnd. 3007. *Report on Science Policy*. Council for Scientific Policy. London, HMSO, 1966.

Cmnd. 3039. *Report of the Ministry of Health for the Year Ended 31st December 1965*. London: HMSO, 1966.

Cmnd. 3638. *The Civil Service. Volume 1. Report of the Committee 1966-68*. London: HMSO, 1968.

Cmnd. 3703. *Report of The Committee on Local Authority and Allied Personal Social Services*. London: HMSO, 1968.

Cmnd. 4814. *A Framework for Government Research and Development*. London, HMSO, 1971.

Cmnd. 4921 (1972). *Estimates 1972-73 for the year ending 31st March 1973*. Memorandum by the chief secretary to the Treasury. London, HMSO.

Cmnd. 5046. *Framework for Government Research and Development*. London: HMSO, 1972.

Cmnd. 5117. *Third report of the Council for Science Policy*. Council for Scientific Policy. London, HMSO.

Cmnd. 8591. *Science and Government. Government Observations on the First Report of the House of Lords Select Committee on Science and Technology (Session 1981-82)*, HMSO, 1982.

Cmnd. 7499. *Review of the Framework for Government Research and Development (Cmnd. 5046)*. London: HMSO, 1979.

Committee of Public Accounts. *Session 1978-79. First Report of the Committee of Public Accounts. HC173. House of Commons*. London: HMSO, 1979.

Committee of Public Accounts. *Session 1978-79. Minutes of Evidence, Wednesday 14 March 1979*. House of Commons. London: HMSO, 1979.

Comptroller and Auditor General, "Report of the Comptroller and Auditor General," in *Appropriation Accounts (Volume 3, Classes X-XV and XV11), 1977-78*, 1979.

Department of Health. *Research for Health. A Research and Development Strategy for the NHS*. London, 1991.

Department of Health. *Best Research for Best Health. A New National Health Research Strategy*. London, 2005.

Department of Health and Social Security. *Using Computers to Improve Health Services. A Review for the National Health Service HM(72)55*. London: DHSS, 1972.

Department of Health and Social Security. *The DHSS in Relation to the Health and Personal Social Services. Review Team Report - Summary*. London: DHSS, 1972.

Department of Health and Social Security. *Management Arrangements for the Reorganised National Health Service*. London: HMSO, 1972.

Department of Health and Social Security. *Annual Report on Departmental Research and Development*, London: HMSO, 1974.

Department of Health and Social Security. *Research and Development Report and Handbook*, London: HMSO, 1977.

Department of Health and Social Security. *Research and Development Report and Handbook*, London: HMSO, 1979.

Department of Health and Social Security. *The Support of Health and Personal Social Services Research. A Report of the Chief Scientist's Advisory Group*. London: DHSS, 1982.

House of Commons. *Sixth Report from the Select Committee on Estimates together with the proceedings of the committee*, 1957.

House of Commons Select Committee on Science and Technology (1972). *Research and Development*. First Report Session 1971-72. HMSO.

House of Commons Select Committee on Science and Technology. *Session 1971-72, Research and Development, Minutes of Evidence and Appendices, HC 375*. London: HMSO, 1972.

House of Commons Treasury and Civil Service Committee. *The Form of the Estimates. Sixth Report (Session 1980-81)*, HMSO. HC 325, 1981.

House of Lords. *Priorities in Medical Research. 3rd Report of the House of Lords Select Committee on Science and Technology 1987-88 Session*. London: HMSO, 1988.

House of Lords Select Committee on Science and Technology. *Science and Government, 1st Report 1981-1982 Session HL (20-I)*, HMSO, 1981.

Office for National Statistics. *Economic Trends, Annual Supplement*, Palgrave Macmillan, 2005.

Office of the Minister for Science. *The Management and Control of Research and Development*. London: HMSO, 1961.

Bibliography

Abel-Smith, Brian. *The Hospitals in England and Wales 1800-1948*. Cambridge, MA: Harvard University Press, 1964.

Abel-Smith, Brian and Richard Titmuss. *The Costs of the National Health Service in England and Wales*. Cambridge: Cambridge University Press, 1956.

Acton Society Trust. *Hospitals and the State: Hospital Organisation and Administration under the National Health Service, Vol. 4: Groups, Regions and Committees*, London, 1957.

Acton Society Trust. *Hospitals and the State: Hospital Organisation and Administration under the National Health Service, Vol. 5: The Central Control of the Service*, London, 1958.

Acton Society Trust. *Hospitals and the State: Hospital Organisation and Administration under the National Health Service, Vol. 6: Creative Leadership in a State Service*, London, 1959.

Adamson, Joy. "Combined qualitative and quantitative designs" in *Handbook of Health Research Methods* eds. Ann Bowling and Shah Ebrahim. Maidenhead: Open University Press - McGraw Hill, 2006: 230-245.

- Agar, Jon. *The Government Machine. A Revolutionary History of the Computer*. Cambridge MA: MIT Press, 2003.
- Alford, Robert R. *Health Care Politics: Ideological and Interest Group Barriers to Reform*. Chicago: University of Chicago Press, 1975.
- Allen, David E. *Hospital Planning. The Development of the 1962 Hospital Plan*. Tunbridge Wells: Pitman Medical, 1979.
- Allen, Pauline, Stephen Peckham, Stuart Anderson and Nick Goodwin. "Commissioning research that is used: the experience of the NHS Service Delivery and Organisation Research and Development Programme." *Evidence and Policy* 3, no. 1 (2007): 119-134.
- Allsop, Judy. *Health Policy and the National Health Service*. London: Longman, 1984.
- Alper, Helen. *A History of Queen Mary's University Hospital Roehampton*. London: Twickenham & Roehampton Healthcare NHS Trust, 1996.
- Andermann, Anne, Blancquaert, Ingeborg, Beauchamp, Sylvie, Déry, Véronique. "Revisiting Wilson and Jungner in the genomic age: a review of screening criteria over the past 40 years." *Bulletin of the World Health Organization*. 86, no. 4 (2008): 317-319.
- Anderson, Julie, Francis Neary and John V. Pickstone. *Surgeons, Manufacturers and Patients. A Transatlantic History of Total Hip Replacement*. Basingstoke: Palgrave Macmillan, 2007.
- Appleby, John. "Government funding of the UK National Health Service: What does the historical record reveal?" *Journal of Health Services Research and Policy* 4, no. 2 (1999): 79-89.
- Austoker, Joan and Linda Bryder, *Historical Perspectives on the Role of the MRC*, Oxford: Oxford University Press, 1989.
- Austoker, Joan. "Walter Morley Fletcher and the origins of a basic biomedical research policy" in *Historical Perspectives on the Role of the MRC*, eds. Joan Austoker and Linda Bryder, Oxford: Oxford University Press, 1989: 23-33.
- Banks, G. T. "Programme budgeting in the NHS" in *Planning for Welfare*, ed. Timothy A. Booth. Oxford: Basil Blackwell, 1979: 150-172.
- Berlivet, Luc. "'Association or causation'? The debate on the scientific status of risk factor epidemiology, 1947-c.1965" in *Making Health Policy: Networks in Research and Policy After 1945*, ed. Virginia Berridge. Amsterdam and New York: Rodopi, 2005: 39-74.
- Berridge, Virginia, ed. *Making Health Policy: Networks in Research and Policy after 1945*. Amsterdam and New York: Rodopi, 2005.
- Berridge, Virginia. "'Hidden from history'? Oral history and the history of health policy." *Oral History*, 2010: 91-99.
- Berridge, Virginia and Stuart Blume. *Poor Health. Social Inequality before and after the Black Report*, London: Frank Cass, 2003.

- Bierman, Pearl, Edward J. Connors, Evelyn Flook, Robert R. Huntley, Thomas McCarthy and Paul J Sanzaro. "Health Services Research in Great Britain." *The Milbank Memorial Fund Quarterly* 46, no. 1 (1968): 9-102.
- Black, Douglas. "Functions of the Chief Scientist in the Department of Health and Social Security." *Journal of the Royal Society of Medicine*, 71, July 1978: 485-488.
- Black, Douglas. *Recollections and Reflections*. London: The Memoir Club, 1987.
- Black, Nick. "A national strategy for research and development: lessons from England." *Annual Review of Public Health* 18 (1997): 485-505.
- Black, Nick. "Health services research: the gradual encroachment of ideas." *Journal of Health Services Research and Policy* 14, no.2 (2009): 120-123.
- Blau, Peter M. *Exchange and Power in Social Life*. New York: John Wiley & Sons, 1964.
- Blume, Stuart S. "Social Science in Whitehall: Two Analytical Perspectives", in *Social Science Research and Government*, ed. Martin Bulmer. Cambridge, Cambridge University Press: 1987, 77-93.
- Blume, Stuart S. *Insight and Industry. On the Dynamics of Technological Change in Medicine*. Cambridge, MA: MIT Press, 1992.
- Booth, Christopher C. "Clinical research" in *Historical Perspectives on the Role of the MRC* eds. Joan Austoker and Linda Bryder, Oxford: Oxford University Press, 1989, 205-241.
- Bosworth, D.L., R.A. Wilson and A.J. Young. "Research and Development" *Reviews of United Kingdom Statistical Sources*. Vol. XXVII. Series editor M. C. Fleming. London: Chapman and Hall for the Royal Statistical Society and the Economic and Social Research Council, 1993.
- Bridgen, Paul and Rodney Lowe. *Welfare Policy under the Conservatives, 1951 to 1964*. London: The Public Records Office, 1998.
- Bryder, Linda. "Public health research and the MRC" in *Historical Perspectives on the Role of the MRC*, eds. Joan Austoker and Linda Bryder, Oxford University Press, 1989, 59-81.
- Bryder, Linda. "Tuberculosis and the MRC" in *Historical Perspectives on the Role of the MRC*, eds. Joan Austoker and Linda Bryder, Oxford University Press, 1989, 1-21.
- Bryder, Linda. "The Medical Research Council and clinical trials methodologies before the 1940's: the failure to develop a 'scientific' approach." *Journal of the Royal Society of Medicine* 104 (2011): 335-343.
- Buller, Arthur and James L. Gowans. "Medical research and the funding of the MRC." *British Medical Journal* 282 (1981): 820.
- Butler, J. R. and F. A. Boddy. "The evolution of health services research in Britain." *Community Medicine* 5 (1983): 192-199.
- Cherns, Albert. "A policy for the social sciences?" in *UK Science Policy. A Critical Review of Policies for Publicly Funded Research* ed. Maurice Goldsmith. Harlow: Longman, 1984, 150-188.
- Clarke, Richard W. B. *The Ministry of Technology and Industry*. Industrial, Education and Research Association, 1970.

Cochrane, Archibald L. and Max Blythe *One Man's Medicine. An Autobiography of Professor Archie Cochrane*. London: British Medical Journal, 1989.

Cohen, Richard H. L. "The Department's Role in Research and Development", in *Portfolio for Health. The Role and Programme of the DHSS in Health Services Research*, ed. Gordon McLachlan. London: published for the Nuffield Provincial Hospitals Trust by the Oxford University Press, 1971, 1-21.

Cohen, Richard H. L. "Introduction", in *Portfolio for Health 2. The Developing Programme of the DHSS in Health Services Research*, ed. Gordon McLachlan. London: published for the Nuffield Provincial Hospitals Trust by the Oxford University Press, 1973, xi-xvi.

Cohen, Richard H. L. "The DHSS and the MRC. The First Chief Scientist Looks Back", in *Matters of Moment. Problems and Progress in Medical Care. Thirteenth Series Essays on Current Research*, ed. Gordon McLachlan. Oxford: Published for the Nuffield Provincial Hospitals Trust by the Oxford University Press, 1981, 1-24.

Cohen, Richard H. L. "The health department and research", *Journal of Public Health Medicine* 14, no. 3 (1992): 341-2

Collingridge, David and Colin Reeve, *Science Speaks to Power: The Role of Experts in Policymaking*. London: Pinter, 1986.

Cook, Christopher. "Oral history - Walter Holland." *Journal of Public Health* 26, no. 2, (2004): 121-129.

Cooksey, David. (2006). *A Review of UK Health Research Funding*. London, HMSO, 2006.

Cooper, Joan. *The Creation of the British Personal Social Services 1962-1974*. London: Heinemann, 1983.

Coopey, Richard. "Industrial policy in the white heat of the scientific revolution" in *The Wilson Governments 1964-1970* eds. Richard Coopey, S. Fielding and N. Tiratsoo. London: Pinter Publishers, 1993, 102-122.

Coopey, Richard. "Restructuring civil and military science and technology: The Ministry of Technology in the 1960s" in *Defence Science and Technology: Adjusting to Change* eds. Richard Coopey, Matthew Uttley and Graham Spinardi. Chur: Harwood, 1993.

Cornish, J. B. and A. G. McDonald "Operational Research" in *Portfolio for Health. The Role and Programme of the DHSS in Health Services Research* ed. Gordon McLachlan. London: published for the Nuffield Provincial Hospitals Trust by the Oxford University Press, 1971: 161-167.

Council for Medical Sciences. *The Societal Impact of Applied Health Research*. Amsterdam: Koninklijke Nederlandse Akademie van Wetenschappen, 2002.

Cunningham, Charlotte M. and Robin H. Nicholson. "Central government organisation and policy making for UK science and technology since 1982" in *Science and Technology in the United Kingdom* eds. Robin Nicholson, Charlotte M. Cunningham and Philip Gummett. Harlow: Longman, 1991: 27-43.

Currie, Russell M. *Work Study*. London: Pitman Publishing for the British Institute of Management, 1977.

Cutler, Tony. "Economic Liberal or Arch Planner? Enoch Powell and the Political Economy of the Hospital Plan." *Contemporary British History* 25, no.4 (2011): 469-489.

Dacin, M. Tina, Jerry Goodstein and W. Richard Scott. "Institutional theory and institutional change. Introduction to the special research forum." *The Academy of Management Journal*, 45, no. 1 (2002), 43-56.

Daly, Jeanne. *Evidence-based Medicine and the Search for a Science of Clinical Care*. Berkeley: University of California Press/Millbank Memorial Fund, 2005.

Davies, Ruth. "Marking the 50th anniversary of the Platt Report: from exclusion, to toleration and parental participation in the care of the hospitalized child." *Journal of Child Health Care* 14, no.1 (2010): 6-23.

Davies, Stephen M. "Setting the research agenda for health services management: who decides?" *Evidence and Policy* 6, no.1 (2010): 103-113.

Davies, Stephen M. "Promoting productivity in the National Health Service, 1950 to 1966." *Contemporary British History* 31, no. 1 (2017): 47-68.

Davies, Stephen M. "The Experimental Computer Programme: the First Computing Initiative for the National Health Service in England." *IEEE Annals of the History of Computing* 39, no. 2 (2017): 65-79.

Denis, Jean-Louis, Pascale Lehoux and Francois Champagne. "A knowledge utilization perspective on fine-tuning dissemination and contextualizing knowledge" in eds. Louise Lemieux-Charles and Francois Champagne. *Using Knowledge and Evidence in Health Care: Multidisciplinary Perspectives*. Toronto: University of Toronto Press, 2004, 1-18.

DiMaggio, Paul and Walter Powell. "The iron cage revisited: institutional isomorphism and collective rationality in organizational fields" in *The New Institutionalism in Organizational Analysis*, eds. Paul DiMaggio and Walter Powell. Chicago: University of Chicago Press, 1991: 63-82.

Dobbs, E. R. "The organisation and control of scientific research by the United Kingdom Government." *Higher Education* 1, no. 3 (1972): 345-355.

Dollery, Colin T. *The End of an Age of Optimism. Medical Science in Retrospect and Prospect*. The Nuffield Provincial Hospitals Trust, 1978.

Duffy, Michael P. "The Rothschild experiment: health science policy and society in Britain." *Science, Technology and Human Values* 11, no.1 (1986): 68-78.

Dunleavy, Patrick and Brendan O'Leary. *Theories of the State. The Politics of Liberal Democracy*. Basingstoke: Palgrave Macmillan, 1987.

Edgerton, David. "The 'linear model' did not exist: reflections on the history and historiography of science and research in industry in the twentieth century" in *The Science-Industry Nexus: History, Policy, Implications* eds. Karl Grandin, Nina Wormbs and Sven Widmalm. Sagamore Beach: Science History Publications, 2004.

Edgerton, David. "Science and the nation: towards new histories of twentieth-century Britain." *Historical Research* 78, no.199 (2005): 96-112.

Edgerton, David. *Warfare State*. Cambridge: Cambridge University Press, 2006.

Edgerton, David "The 'Haldane Principle' and other invented traditions in science policy". History and Policy Papers online, 2 July 2009, <http://www.historyandpolicy.org/policy-papers/papers/the-haldane-principle-and-other-invented-traditions-in-science-policy> .

Edgerton, David and John V. Pickstone. "Science, Technology and Medicine in the United Kingdom, 1750-2000" in *Cambridge History of Science, vol. viii, Modern Science in National and International Context* ed. Ronald Numbers. Cambridge: Cambridge University Press, 2011.

Evans, R. (1983). "Obituary." *Early Child Development and Care* 11(3-4): 323-324.

Finlayson, Geoffrey. "A moving frontier: voluntarism and the state in British social welfare." *Twentieth Century British History* 1, no.2 (1990): 183-206.

Flater, P. "'Pulling through' - conspiracies, counterplots and how the SSRC escaped the axe in 1982" in *Social Science Research and Government* ed. Martin Bulmer. Cambridge: Cambridge University Press, 1987: 353-372.

Fox, Daniel M. *Health Policies, Health Politics: the British and American Experience 1911-1965*. Princeton: Princeton University Press, 1986.

Freidson, Eliot. *Profession of Medicine: a Study of the Sociology of Applied Knowledge*. Chicago: University of Chicago Press, 1970

Friedland, Roger and Robert R. Alford "Bringing society back in: symbols, practices and institutional contradictions" in *The New Institutionalism in Organizational Analysis* eds. Paul DiMaggio and Walter Powell. Chicago: University of Chicago Press, 1991: 232-263.

Fry, John. "The Keppel Club (1952-74): lessons from the past for the future." *British Medical Journal* 303 (1991): 1596-1598.

Garrett, John. *The Management of Government*. Harmondsworth: Penguin, 1972.

Gelijns, Annetine and Nathan Rosenberg. "The dynamics of technological change in medicine." *Health Affairs* 13, no.3 (1994): 28-46.

Gledrych, D. A. "The Department's Policy and Objectives" in *Medical Computing, Progress and Problems*, ed. Michael E. Abrams. London: Chatto & Windus for the British Computer Society, 1970, 345-352.

Godber, George E. *The Health Service: Past, Present and Future*. London: Athlone Press, 1975.

Godber, George E. "The Health Department and Research." *Journal of Public Health Medicine* 14, no.3 (1992): 339-341.

Godin, Benoit. "The linear model of innovation: The historical construction of an analytical framework." *Science, Technology and Human Values* 31, no.6 (2006): 636-667.

Goldsmith, Maurice and Alan L. Mackay, eds. *The Science of Science*. Harmondsworth: Penguin, 1964.

Goodman, H. "Building and engineering" in *Portfolio for Health. The Role and Programme of the DHSS in Health Services Research*, ed. Gordon McLachlan. London: published for the Nuffield Provincial Hospitals Trust by the Oxford University Press, 1971, 205-211.

- Gordon, M. D. and A. J. Meadows. *The Dissemination of Findings of DHSS-Funded Research*. Leicester, University of Leicester, Primary Communications Research Centre, 1981.
- Greer, Scott and Holly Jarman. *The Department of Health and the Civil Service*, London: The Nuffield Trust, 2007.
- Griffith, John A. G. *Central Departments and Local Authorities*. London: George Allen and Unwin, 1965.
- Gummett, Philip. *Scientists in Whitehall*. Manchester: Manchester University Press, 1980.
- Hall, Phoebe. *Reforming the Welfare*. London: Heinemann, 1976.
- Hall, Peter A. and Rosemary C. R. Taylor. "Political science and the three new institutionalisms." *Political Studies*, 54 (1996): 936-957.
- Ham, Cristopher. *Policy-making in the National Health Service: a Case Study of the Leeds Regional Hospital Board*. London: Macmillan, 1981.
- Ham, Christopher. *Health Policy in Britain*. Basingstoke: Palgrave Macmillan, 2004.
- Harker, Rachael. *NHS Funding and Expenditure*. SN/SG/724, House of Commons Library, 2012.
- Harrison, Anthony and Bill New. *Public Interest, Private Decisions. Health-related Research in the UK*. London, King's Fund, 2002.
- Harrison, Stephen. *Managing the National Health Service*. London: Chapman and Hall, 1988.
- Harrison, Stephen. *National Health Service Management in the 1980's. Policymaking on the Hoof?* Aldershot: Avebury, 1994.
- Harwood, Jonathan. "Understanding academic drift: On the institutional dynamics of higher technical and professional education." *Minerva* 48, no. 4 (2010): 413-427.
- Hay, Colin and Daniel Wincott. "Structure, agency and historical institutionalism" *Political Studies* 46 (1998): 951-957.
- Heaman, Elsbeth A. *St Mary's. The History of a London Teaching Hospital*. Montreal & Kingston: McGill-Queens University Press, 2003.
- Heclo, Hugh and Aaron Wildavsky. *The Private Governance of Public Money*. London and Basingstoke: Macmillan, 1974.
- Henkel, Mary and Maurice Kogan. *The DHSS Funded Research Units: the Process of Review* Uxbridge: Brunel University, 1981.
- Hennessy, Peter. *Whitehall*. London: Martin, Secker and Warburg, 1989.
- Hilton, Matthew, James McKay, Nicholas Crowson and Jean-Francois Mouhot. *The Politics of Expertise. How NGOs Shaped Modern Britain*. Oxford: Oxford University Press, 2013.
- Holland, Walter W. *Foundations for Health Improvement: Productive Epidemiological Public Health Research 1919-1998*. London: Nuffield Trust, 2002.

- Holland, Walter W. and B. Fitzsimons. "Medical and health services research" in *Central Government Organisation and Policy for UK Science and Technology since 1982* eds. Charlotte M. Cunningham, Robin Nicholson and Philip Gummatt. Harlow: Longman, 1991.
- Holland, Walter W. *Improving Health Services*. Cheltenham: Edward Elgar, 2013.
- Horner, David. "The road to Scarborough: Wilson, Labour and the scientific revolution" in *The Wilson Governments 1964-1970* eds. Richard Coopey, S. Fielding and N. Tiratsoo. London: Pinter Publishers, 1993, 48-71.
- Horvath, William J. "British experience with operations research in the health services." *Journal of Chronic Diseases* 17, (1964): 779-788.
- Hudson, Barclay M. "Comparison of current planning theories: counterparts and contradictions." *Journal of the American Planning Association* 25, no. 4 (1979): 387-398.
- Hunter, Beatrice. *The Administration of Hospital Wards*. Manchester: Manchester University Press, 1972.
- Hurst, Jeremy. "The impact of health economics on health policy in England, and the impact of health policy on health economics, 1992-1997." *Health Economics* 7, (1998): S47-S62.
- Ince, Martin. *The Politics of British Science*. Brighton: Wheatsheaf, 1986.
- Institute for Operational Research. *Institute for Operational Research. The First Four Years 1963-1967*, 1967.
- Jefferys, Margot. *An Anatomy of Social Welfare Services*. London: Michael Joseph, 1965.
- Jefferys, Margot. "Social Medicine and Medical Sociology 1950-1970: The Testimony of a Partisan Participant" in *Social Medicine and Medical Sociology in the Twentieth Century*, ed. Dorothy Porter. Amsterdam- Atlanta: Rodopi, 1997, 120-136.
- Jenkins, Keith and Alun Munslow. *The Nature of History Reader*, London: Routledge (2004), 1-18.
- Kay, Andrew Watt. *Research in Medicine: Problems and Prospects*. London: Nuffield Provincial Hospitals Trust, 1977.
- King, Anthony. "Overload. Problems of Governing in the 1970s." *Political Studies* 23 no.2 and 3, 1975: 284-296.
- Kirby, Maurice W. *Operational Research in War and Peace: The British Experience from the 1930's to 1970*. London: Imperial College Press, 2003.
- Kitchener, Martin. "Mobilizing the logic of managerialism in professional fields: the case of academic health centre mergers." *Organization Studies* 23, no. 3 (2002): 391-420.
- Klein, Rudolf. "Research, policy and the National Health Service." *Journal of Health Politics, Policy and Law* 15, no.3 (1990): 501-523.
- Klein, Rudolf. *The New Politics of the NHS*. Abingdon: Radcliffe Publishing, 2006.
- Klein, Rudolf. "The eternal triangle: sixty years of the centre-periphery relationship in the National Health Service." *Social Policy and Administration* 44, no.3 (2010): 285-304.

- Kogan, Maurice and Mary Henkel. *Government and Research: the Rothschild Experiment in a Government Department*. London: Heinemann Educational, 1983.
- Kogan, Maurice, Mary Henkel and Stephen Hanney. *Government and Research: Thirty Years of Evolution*. Dordrecht: Springer, 2006.
- Kogan, Maurice, Nancy Korman and Mary Henkel. *Government's Commissioning of Research: a Case Study*. Uxbridge: Brunel University, 1980.
- Levitt, Ruth. *The Reorganised National Health Service*. London: Croom Helm, 1976.
- Lewis, Jane. *What Price Community Medicine?* Brighton, Wheatsheaf Books, 1986.
- Lindblom, Charles E. and David K. Cohen. *Usable Knowledge*. New Haven and London: Yale University Press, 1979.
- Lomas, Jonathan "Using 'linkage and exchange' to move research into policy at a Canadian foundation." *Health Affairs* 19, no.3 (2000): 236-240.
- Lord Hailsham. *Science and Politics*. London, Faber and Faber, 1963.
- Mackenzie, William J. M. *Power and Responsibility in Health Care: the National Health Service as a Political Institution*. Oxford: Oxford University Press for the Nuffield Provincial Hospitals Trust, 1979.
- McKenzie, D. S. "Biomechanical Research and Development Unit (BRADU)" in *Portfolio for Health. The Role and Programme of the DHSS in Health Services Research* ed. Gordon McLachlan. London, Published for the Nuffield Provincial Hospitals Trust by the Oxford University Press, 1971: 197-203.
- McLachlan, Gordon, ed. *Portfolio for Health: the Role and Programme of the DHSS in Health Services Research*. Problems and Progress in Medical Care (6th series). London: Oxford University Press for the Nuffield Provincial Hospitals Trust, 1971.
- McLachlan, Gordon Ed. *Portfolio for health 2. The Developing Programme of the DHSS in Health Services Research*. Problems and Progress in Medical Care (eighth series). London: Oxford University Press for the Nuffield Provincial Hospitals Trust, 1973.
- McLachlan, Gordon. *Five Years After: A Review of Health Care Research Management after Rothschild: including an essay by Thomas P. Whitehead*. Oxford: Oxford University Press for the Nuffield Provincial Hospitals Trust, 1978.
- McLachlan, Gordon. *A History of the Nuffield Provincial Hospitals Trust 1940-1990*. London: Nuffield Provincial Hospitals Trust, 1992.
- Medical Research Council. *Annual Report 1975/6*. London: MRC, 1976.
- Medical Research Council. *Annual Report 1976/7*. London: MRC, 1977.
- Medical Research Council and Ministry of Health and Department of Health for Scotland. *Clinical Research in Relation to the National Health Service*. London: HMSO, 1953.
- Meyer, John W. and Brian Rowan. "Institutionalized organisations: formal structure as myth and ceremony" in *The New Institutionalism in Organizational Analysis*, eds. Walter W. Powell and Paul DiMaggio. Chicago: The University of Chicago Press, 1991, 41-62.

- Mintzberg, Henry. *The Rise and fall of Strategic Planning*. Hemel Hempstead: Prentice Hall, 1994.
- Mitchell, B. R. (1988). *British Historical Statistics*, Cambridge University Press.
- Mohan, John. *Planning, Markets and Hospitals*. London and New York: Routledge, 2002.
- Molteno, B.W.H. "A new approach to evaluation in the NHS Experimental Computer Programme. *Medical Informatics Europe 78, Lecture Notes on Medical Informatics* eds. D.A.B. Lindberg and P.L. Reichertz (1978): 691-700.
- Moran, Michael. *Governing the Health Care State: a Comparative Study of the United Kingdom, the United States and Germany*. Manchester: Manchester University Press, 1999.
- Murphy, Shaun and George Davey-Smith. "The British Journal of Social Medicine: what was in a name?" *Journal of Epidemiology and Community Health* 51 (1997): 2-8.
- Nicholson, Robin, Catherine M Cunningham and Philip Gummatt, eds. *Science and Technology in the United Kingdom*. Harlow: Longman, 1991.
- Nicol, Alexandra. *The Social Sciences Arrive*. Swindon: Economic and Social Research Council, 2001.
- Nuffield Provincial Hospitals Trust. *Towards a Measure of Medical Care. Operational Research in the Health Services*. London: Oxford University Press, 1962.
- Nutley, Sandra M., Isabel Walter and Huw T.O. Davies. *Using Evidence. How Research can inform Public Services*. Bristol: The Policy Press, 2007.
- OECD. *Frascati Manual. Proposed Standard for Surveys on Research and Experimental Development*. Paris: Organisation for Economic Cooperation and Development, 2002.
- O'Grady, Francis. "Valediction - a personal view from Professor Francis O'Grady, Chief Scientist at the Department of Health 1986-1990." *Journal of Public Health Medicine* 14, no.3 (1992): 344-348.
- O'Hara, Glenn. *From Dreams to Disillusionment. Economic and Social Planning in 1960s Britain*. Basingstoke: Palgrave Macmillan, 2007.
- Parker, Miles. "The Rothschild Report (1971) and the purpose of government-funded R&D – a personal account," *Palgrave Communications*, published 2 August 2016: DOI: 10.1057/palcomms.2016.53.
- Petty, Celia. "Primary research and public health: the prioritization of nutrition research in inter-war Britain" in *Historical Perspectives on the Role of the MRC*, eds. Joan Austoker and Linda Bryder, Oxford University Press, 1989, 83-108.
- Pierson, Paul. "Increasing Returns, Path Dependence and the Study of Politics." *The American Political Science Review* 94, No. 2 (2000): 251:267.
- Pomper, Philip. "Historians and individual agency." *History and Theory* 35, no.3 (1996): 281-308.
- Porter, Dorothy. "The decline of social medicine in Britain in the 1960's" in *Social Medicine and Medical Sociology in the Twentieth Century*, ed. Dorothy Porter. Amsterdam- Atlanta: Rodopi, 1997, 97-119.

- Prochaska, Frank K. *The Voluntary Impulse: Philanthropy in Modern Britain*. London, Faber, 1988.
- Prochaska, Frank K. *Philanthropy and the Hospitals of London, The Kings Fund 1897-1990*. Oxford: Clarendon Press, 1992.
- Rayner, Brian. *History of the Department of Health*. London: Department of Health, 1994.
- Reynolds, L.A. and E.M. Tansey. *Clinical Research in Britain 1950-1980*. London: The Wellcome Trust, 2000.
- Rivett, Geoffrey. *From Cradle to Grave: Fifty Years of the NHS*. London, King's Fund, 1998.
- Robson, Neil. "Adapting not Adopting: 1958-1974. Accounting and Managerial 'Reform' in the Early NHS." *Accounting, Business and Financial History* 17, no. 3 (2007): 445-467.
- Rose, Hilary and Steven Rose. *Science and Society*. London: Pelican, 1970.
- Roszack, Theodore. *The Making of a Counter-Culture*. New York, Garden City, 1969.
- Roth, Martin "Desmond Arthur Pond." *Munk's Roll* VIII (385), 1986.
- Royston, Geoffrey. "One hundred years of Operational Research in Health - UK 1948-2048." *Journal of the Operational Research Society* 60(S1) (2009): S169-S179.
- Ryan, Michael. "Health Centre Policy in England and Wales." *British Journal of Sociology*, 19, no. 1, (1968): 34-46.
- Sainsbury, Eric. *The Personal Social Services*. London: Pitman Publishing, 1977.
- Sheard, Sally. "Quacks and Clerks: Historical and Contemporary Perspectives on the Structure and Function of the British Medical Civil Service." *Social Policy and Administration* 44, no.2 (2010): 193-207.
- Sheard, Sally. *The Passionate Economist: How Brian Abel-Smith Shaped Global Health and Social Welfare*. Bristol, Policy Press, 2014.
- Sheard, Sally and Liam J. Donaldson. *The Nation's Doctor: the Role of the Chief Medical Officer 1855-1998*. Abingdon: Radcliffe, 2006.
- Shepherd, Robert. *Enoch Powell*, London: Hutchinson, 1996.
- Shergold, Miriam and Jonathan Grant. "Freedom and Need: The evolution of public strategy for biomedical and health research in England." *Health Research Policy and Systems* 6, no.2 (2008).
- Smee, Clive. *Speaking Truth to Power. Two Decades of Analysis in the Department of Health*. Abingdon: Radcliffe, 2005.
- Snow, Stephanie. "'I've never found doctors to be a difficult bunch': Doctors, managers and NHS reorganisations in Manchester and Salford, 1948-2007." *Medical History* 57, no.1 (2013): 65-86.
- Stacey, Frank A. *British Government 1966 to 1975: Years of Reform*. London and New York: Oxford University Press, 1975.

- Stevens, Andrew and Ruairidh Milne, "Health technology assessment in England and Wales." *International Journal of Technology Assessment in Health Care* 20, no.1 (2004): 11-24.
- Stevens, E. L. "Medical Equipment and Supplies: Research and Development" in *Portfolio for Health 2. The Developing Role of the DHSS in Health Services Research* ed. Gordon McLachlan. London: published for the Nuffield Provincial Hospitals Trust by the Oxford University Press, 1973, 123-133.
- St. Leger, A. Selwyn and Joanna P Walsworth-Bell. *Change-promoting research for health services: a guide for resource managers, research and development commissioners and researchers*. Buckingham: Open University Press, 1999.
- Stowe, Kenneth. *On Caring for the National Health*. London: Nuffield Provincial Hospitals Trust, 1988.
- Susskind, Charles. "The invention of computed tomography", *History of Technology* eds. A. Rupert Hall and Norman Smith. London: Mansell Publishing, (1981): 39-80.
- Taylor, David and George Teeling-Smith. "Health Services", in *UK Science Policy. A Critical Review of Policies for Publicly Funded Research*, ed. Maurice Goldsmith. Harlow: Longman, (1984): 107-122.
- Thompson, James D. *Organizations in Action*. New York, McGraw-Hill, 1967.
- Thompson, Paul and Rob Perks. *An Introduction to the Use of Oral History in the History of Medicine*. London: British Library National Sound Archive, National Life Story collection, 1993.
- Thomson, Arthur Landsborough. *Half a Century of Medical Research. Vol. 1, Origins and Policy of the Medical Research Council (UK)*. London: HMSO, 1973. *Vol. 2, The Programme of the Medical Research Council (UK)*. London: HMSO, 1975.
- Tiratsoo, Nick and Jim Tomlinson. *The Conservatives and Industrial Efficiency, 1951-1964. Thirteen Wasted Years?* London and New York: LSE/Routledge, 1998.
- Tolliday, Heather. "Clinical Autonomy" in *Health Services. Their Nature and Organisation and the Role of Patients, Doctors, Nurses and the Complementary Professions*, ed. Elliott Jaques. London: Heinemann, 1978, 32-52.
- Tosh, John. *The Pursuit of History*, London: Pearson, 2000.
- Townsend, Peter and Nick Davidson (eds.). *Inequalities in Health: The Black Report*, Harmondsworth: Penguin, 1982.
- Treacher, Andrew and Peter F. Wright. *The Problem of Medical Knowledge: Examining The Social Construction of Medicine*. Edinburgh, Edinburgh University Press, 1982.
- Vig, Norman J. *Science and Technology in British Politics*. Oxford: Pergamon Press, 1968.
- Vig, Norman J. "Policies for science and technology in Great Britain: postwar development and reassessment." in *Science Policies of Industrial Nations* ed. T. Dixon Long and Christopher Wright. New York, Praeger (1975): 59-109.

- Walshe, Kieran and Huw T. O. Davies. "Research, influence and impact: deconstructing the norms of health services research commissioning." *Policy and Society* 29, no.2 (2010): 103-111.
- Walshe, Kieran and Huw T. O. Davies. "Health research, development and innovation in England from 1988 to 2013: from research production to knowledge mobilization." *Journal of Health Services Research and Policy* 18 suppl. 3, (2013): 1-12.
- Walt, Gill. *Health Policy. An Introduction to Process and Power*. London: Zed Books, 1994.
- Weber, Max. *The Theory of Social and Economic Organization*. Glencoe, IL, Free Press, 1964.
- Webster, Charles. *The Health Services since the War. Volume 1, Problems of Health Care, the National Health Service before 1957*. London: The Stationery Office, 1988.
- Webster, Charles. "Conservatives and Consensus: The Politics of the National Health Service, 1951-64" in *The Politics of the Welfare State* eds. Ann Oakley and A. Susan Williams. London: UCL Press, 1994.
- Webster, Charles. *The Health Services since the War. Volume 2, Government and Health Care, The National Health Service 1958-1979*. London: The Stationery Office, 1996.
- Webster, Charles. *The National Health Service. A Political History*. Oxford: Oxford University Press, 1988.
- Weiss, Carol H. "The many meanings of research utilization." *Public Administration Review* 39, no. 5 (1979): 426-431.
- Welshman, John. *From Transmitted Deprivation to Social Exclusion*. Bristol: Policy Press, 2007.
- Whitehead, Thomas P. "Before and after the Rothschild Report" in *Five Years After: A Review of Health Care Research Management after Rothschild* ed. Gordon McLachlan. Oxford: Oxford University Press for the Nuffield Provincial Hospitals Trust, 1978: 1-49.
- Wilsford, David. "Path Dependency, or Why History Makes it Difficult but Not Impossible to Reform Health Care Systems in a Big Way." *Journal of Public Policy* 14, No. 3 (1994): 251-283.
- Wilkie, Tom. *British Science and Politics since 1945*. Oxford: Basil Blackwell, 1991.
- Williams, Alan. "Primeval health economics in Britain: a personal retrospect of the pre-HESG period." *Health Economics* 7, 1998: S3-S8.
- Williams, Roger. "Some political aspects of the Rothschild Affair." *Science Studies* 3 (1973): 31-46.
- Wilson, James M. G. "Richard Cohen: first Chief Scientist at the DHSS." *Journal of the Royal Society of Medicine* 91 (1998): 222-224.
- Witzel, Morgan. *A History of Management Thought*. London and New York: Routledge, 2013.