

LONDON
SCHOOL of
HYGIENE
& TROPICAL
MEDICINE



LSHTM Research Online

Gorsky, Martin; Millward, Gareth; (2018) Resource Allocation for Equity in the British National Health Service, 1948-89: An Advocacy Coalition Analysis of the RAWP. *JOURNAL OF HEALTH POLITICS POLICY AND LAW*, 43 (1). pp. 69-108. ISSN 0361-6878 DOI: <https://doi.org/10.1215/03616878-4249814>

Downloaded from: <http://researchonline.lshtm.ac.uk/id/eprint/4656263/>

DOI: <https://doi.org/10.1215/03616878-4249814>

Usage Guidelines:

Please refer to usage guidelines at <https://researchonline.lshtm.ac.uk/policies.html> or alternatively contact researchonline@lshtm.ac.uk.

Available under license: <http://creativecommons.org/licenses/by-nc-nd/2.5/>

<https://researchonline.lshtm.ac.uk>

Resource Allocation for Equity in the British National Health Service 1948-89: an Advocacy Coalition Analysis of the 'RAWP'

The British National Health Service (NHS) is one of the oldest examples among the liberal democracies of a single-payer, publicly funded health system. It was launched in 1948, following legislation in 1946/7, with three core principles. It would be universal in coverage, furnish a comprehensive range of services, and be free at the point of use, with funding coming principally from general taxation levied centrally. According to its founder, Britain would become 'more wholesome, more serene, and spiritually healthier, if its citizens have the knowledge that they and their fellows, have access, when ill, to the best that medical skill can provide' (Bevan 1952: 75). Over its seventy years these principles have frayed at the edges, with the status of non-British citizens compromising universalism, the porous boundary with social care challenging comprehensiveness, and the introduction of charges for prescriptions, dentistry and ophthalmics undermining free treatment. Nonetheless, the NHS's principles and values remain essentially intact and politically popular (Gorsky 2008).

As momentum in global health builds behind the agenda of Universal Health Coverage, this 'Beveridge' model health system is enjoying a revival of interest among analysts. Pluralist developmental models incorporating substantial user fees have proven to impose barriers to access, while empirical evidence that public systems deliver better outcomes in low-income settings has emerged (Yates 2009; Moreno-Serra and Smith 2015). In these circumstances, the NHS can reasonably be proffered as '... a highly applicable ... means for effectively financing a universal coverage system providing access to cost-effective care', while scoring '... consistently high on international benchmarking comparisons ... especially on equity' (Chalkidou and Vega 2013). The NHS funding model, and related devices through which a centrally administered system achieves efficiency and equity therefore merit scrutiny.

The subject of this essay is one key device, commonly dubbed the 'RAWP'. This awkward acronym refers to the Resource Allocation Working Party, a committee

of the government's Department of Health and Social Security (DHSS), established in 1975, and reporting in 1976. It is also synonymous with a novel formula introduced by the committee, through which the state disbursed funding to the NHS regions. The formula's guiding principle was that need for medical care in a given population could be systematically calculated, allowing resources to be allocated in a fair and transparent manner.

There are two reasons why the RAWP's history has larger relevance to present day debates about health policy. The first is as a case study of 'equity of access' in the policy arena. At international level the idea that the furtherance of equity is a legitimate health system function emerged in the 1970s and subsequently became commonly recognized (Anderson 1972: 81, 93, 161-5; World Bank 1993: 54-5, 69-71). This acceptance may be understood as a political expression of ethical principles, whether rights-driven or paternalistic, or of individual self-interest in managing risk. Simply defined, equity implies that 'all should have access to health services regardless of income or residence', yet in practice it has been understood mostly in terms of completeness of coverage or fairness of contributions (Anderson 1972, 5; WHO 2000, 35-9). However, the historical experience of the British NHS shows that even when universal cover through progressive taxation is established, other dimensions of equity, for example in relation to utilization, health outcomes or geographical access may remain unsolved (Hollingsworth, Hage & Hanneman 1990). The RAWP episode illustrates how the problem of equity of access by 'residence' came to be articulated and addressed within a single-payer system.

It is important secondly as a historical case study of innovation and success in health policy-making. Politically, the terrain of equity is highly contentious, even for a country like Britain where 'socialized medicine' seems a settled aspect of public life. On the one hand, there have always been critics of the NHS who have objected from libertarian or economic liberal perspectives (Seaton 2015). On the other, redistribution of resources for health, albeit in the name of social justice, creates both winners and losers. As in any health system, interests such as medical professionals and hospital administrators may be expected to object if

their power is threatened (Alford 1977). There are also formidable technical challenges to successful policy-making in this area, for how exactly is 'need' for medical care to be defined and measured, when both biological and social factors are in play? Given these political and practical impediments then, it is surprising that the RAWP succeeded at all, and this makes it a particularly intriguing case study.

The discussion begins with an introductory description of Britain's NHS, then provides essential details of the RAWP and its context. Next it reviews existing literature on the episode, arguing that this has given insufficient weight to the importance of ideas and of actors below the level of political leadership. The following section outlines a conceptual approach drawn from political science that adopts just such an analysis, the 'advocacy coalition framework'. This is a generic model of policy change whose explanatory power helpfully illuminates the RAWP case-study. The argument that follows emphasizes three main factors of change: the importance over the medium term of policy-learning driven by the research community; the key role of mid-level bureaucrats in supporting implementation and embedding of the initiative; and the framing of the RAWP debate as essentially technical, even though it touched on core values and was potentially controversial.

The British NHS: history and structure

Amongst the myriad classificatory schemes used in health systems analysis, Britain's NHS has historically been viewed as an ideal type, for its 'universal service pattern' of free care as a public benefit, and its 'polar' organizational model, in which the state was the dominant payer and provider (Roemer 1960: 158; Anderson 1963: 842). It was established after the Second World War as a key element of the welfare state, inspired by the universalist blueprint of the Beveridge Report, and put into place by the social democratic Labour government, following its 1945 election victory. The arrangements that the NHS replaced were characterised by localism and diversity (Webster 1988). Medicine for the middle class had been predominantly private, while payroll-based health

insurance covered blue-collar workers for primary care. Voluntary hospitals funded by philanthropy or mutualism dominated acute care for the working class, with psychiatric and long-stay institutions provided by local government or the Poor Law. Municipal public health departments oversaw infectious diseases, clinical services for women and children, and preventive care. All this was swept aside in 1948, with hospitals taken into national ownership and staffed by salaried doctors and nurses, and primary care physicians ('general practitioners') employed under contract by the NHS. In place of pluralist funding sources, income now came principally from progressive national taxation dispensed annually by the Treasury, with private medicine permitted, but marginal.

The administrative base of medicine in charitable and local political structures was also replaced under the NHS, by a hierarchical system (Webster 1988, 2002; Klein 2005). At its apex was the national government, whose Ministry of Health (renamed in 1968 the DHSS) had prime responsibility for the service. Executive power notionally lay with the Minister of Health (renamed in 1968 Secretary of State) appointed by the Prime Minister from amongst the senior politicians of the governing party, and supported by junior ministers and advisers. Day-to-day control over the NHS was exercised by the Ministry's civil servants. Sometimes described as 'Britain's ruling class', such government bureaucrats held permanent appointments, were nominally non-partisan and in addition to implementing policy participated in its development (Hennessy 1989: 342). Democratic accountability for the NHS resided principally with the national parliament, for only limited public health duties now remained with elected local authorities. New Regional Hospital Boards (RHBs) were created, run by appointees of the Minister, while separate Executive Councils, on which local doctors sat alongside appointees, oversaw primary care. This arrangement persisted until 1974 when the 'tripartite structure' was replaced by tiered Regional, Area and District Health Authorities which mapped onto local government boundaries, the better to integrate preventive, primary and hospital care.

Very crudely the political economy of the NHS in its first forty years can be summarised as follows. Though technically a 'command and control system' there were initially 'rather few commands and precious little control' (LeGrand 2003: 49). Government proffered advice and allocated financing, but managerial responsibility was delegated to local level, remaining largely in the hands of pre-NHS medical and political elites. Nationally a broad consensus over the service obtained between the governing Conservative and Labour parties, though Conservatives were more inclined to constrain expenditure, particularly in the 1950s and 1980s (Webster 2005; Appleby 1999). Growth in the 1960s fuelled quality improvements in general practice and a hospital renewal program, before economic difficulties slowed welfare state expansion in the 1970s. Henceforth political conflict over the NHS intensified as governments sought to contain costs and extend managerial authority, culminating (as readers of this journal will know) in more radical structural reform in 1989, when the Thatcher government launched its 'internal market' (Klein 2013).

The RAWP: key features and research questions

The RAWP episode therefore manifested the mid-seventies moment when central government began to pursue a more interventionist policy. However it also sprang from a contradiction present from the start of the NHS. The service's Labour architect Aneurin Bevan had promised it would 'universalise the best' for all citizens, addressing spatial inequities rooted in the 'caprice of charity' and the patchiness of local government financing (Bevan 1946: 46, 49). For example, the interwar distribution of voluntary hospital capacity was so uneven that in-patient admission rates varied five-fold across the major cities (Mohan 2006; Gorsky, Mohan and Powell 1999). London, in which about 25% of English and Welsh voluntary beds were located, was particularly privileged, as the location of venerable teaching hospitals and many specialist institutions attractive to philanthropy (Pinker 1966: 57). Although municipal hospitals partially ameliorated voluntary unevenness public expenditure varied significantly according to the local wealth base, and these had worse staffing ratios, fewer technical facilities and less outpatient capacity (Levene, Powell and Stewart

2004; Powell 1992; Hollingsworth and Hollingsworth 1985). Nor had statutory health insurance overturned the market incentives which determined the geography of primary care. A six-fold difference in doctor/population ratios existed between major cities, with mining and industrial locations the least favored (Powell 2005).

Despite these problems, and Bevan's rhetoric, the founding legislation contained no program for geographical redistribution, assuming instead that the new regional authorities would resolve these issues. However, there was no local enthusiasm for reforms which might disturb existing medical power structures, and resources continued to be apportioned largely on the basis of pre-1948 expenditure patterns. This meant that twenty years into the life of the NHS the existing distribution of facilities was little changed, thanks to 'the inertia built into the system by history' (DHSS 1976: 7). The first challenge for RAWP historians will therefore be to explain how an apparently marginal concern rose to prominence in the mid-1970s.

Before this though, some preliminary details of the committee and the solution it proposed are needed. The RAWP was set up in May 1975 by the Labour government led by Harold Wilson. The politician formally responsible was Barbara Castle, Secretary of State at the DHSS, on the left of the party, and remembered for championing not only egalitarianism in the NHS but also disability rights and equal pay for women (Perkins 2003). However, it was her Minister of Health, the more centrist David Owen, who led the initiative. The committee's brief was to review and improve the process through which central funding was allocated geographically. The RAWP's response was a novel formula which aligned funding with population health needs. It began with the principle that the 'needs' to which a health service should respond were not the same as public demand, which tended to be 'always one jump ahead' of what a nation's limited resources could deliver. Instead it proposed that the needs of a given place could be systematically calibrated with reference to its demographic features, adjusted to account for its specific 'morbidity characteristics'. Funding

could then be dispensed in response to 'need', rather than existing 'supply' or incalculable consumer 'demand' (DHSS 1976: 7-9).

What was the solution that the RAWP devised? Figure 1 illustrates the working of the formula, whose main principle was to allocate resources on the basis of geographical population levels (Row 1), weighted to reflect various considerations. The first modifying effect (Row 2) was anticipated variations in usage of hospital and community services. This was established by separately weighting seven main fields of activity, principally by regional sex and age structure (using national utilization data); in the case of psychiatric hospitals the known epidemiological link between marital status and utilization was also incorporated. Next a further adjustment was added to account for variations in morbidity (Row 3), for which the chosen tool was Standardized Mortality Ratios (SMRs). The RAWP argued that these provided the best available proxy for morbidity, and thus need for non-psychiatric care. Moreover, because they provided a direct measure of health care need, SMRs obviated the requirement to include in the formula factors such as 'occupation, poverty, social class and pollution', with which they already overlapped (DHSS 1976: 14-15). Standardized fertility rates were also incorporated to calibrate demand for maternity services. Final adjustments (Row 4) were made to account for: cross-boundary patient flows related to hospital location or tourism; existing numbers of long stay patients; extra costs of teaching hospitals (the Service Increment for Teaching, SIFT); and a London weighting.

The pattern of implementation from the late 1970s, when the formula was well established, to the late 1980s when it underwent adjustment in response to the internal market, is shown in Figure 2. Immediate transition to the new

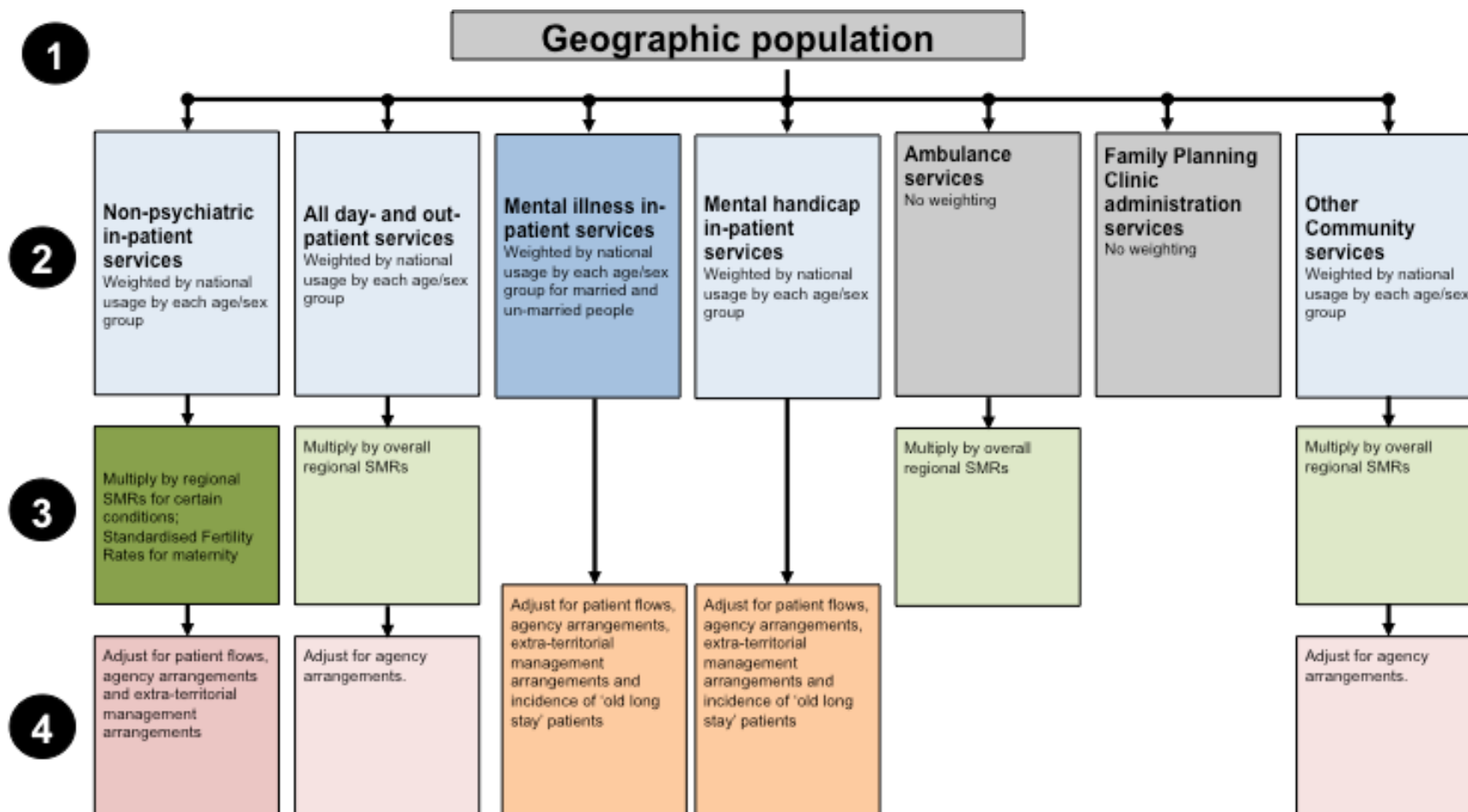


Figure 1: The RAWP Formula. Source: adapted from Royal Commission on the National Health Service, *Allocating health resources: A commentary on the Report of the Resource Allocation Working Party* (London, 1978), figure 1

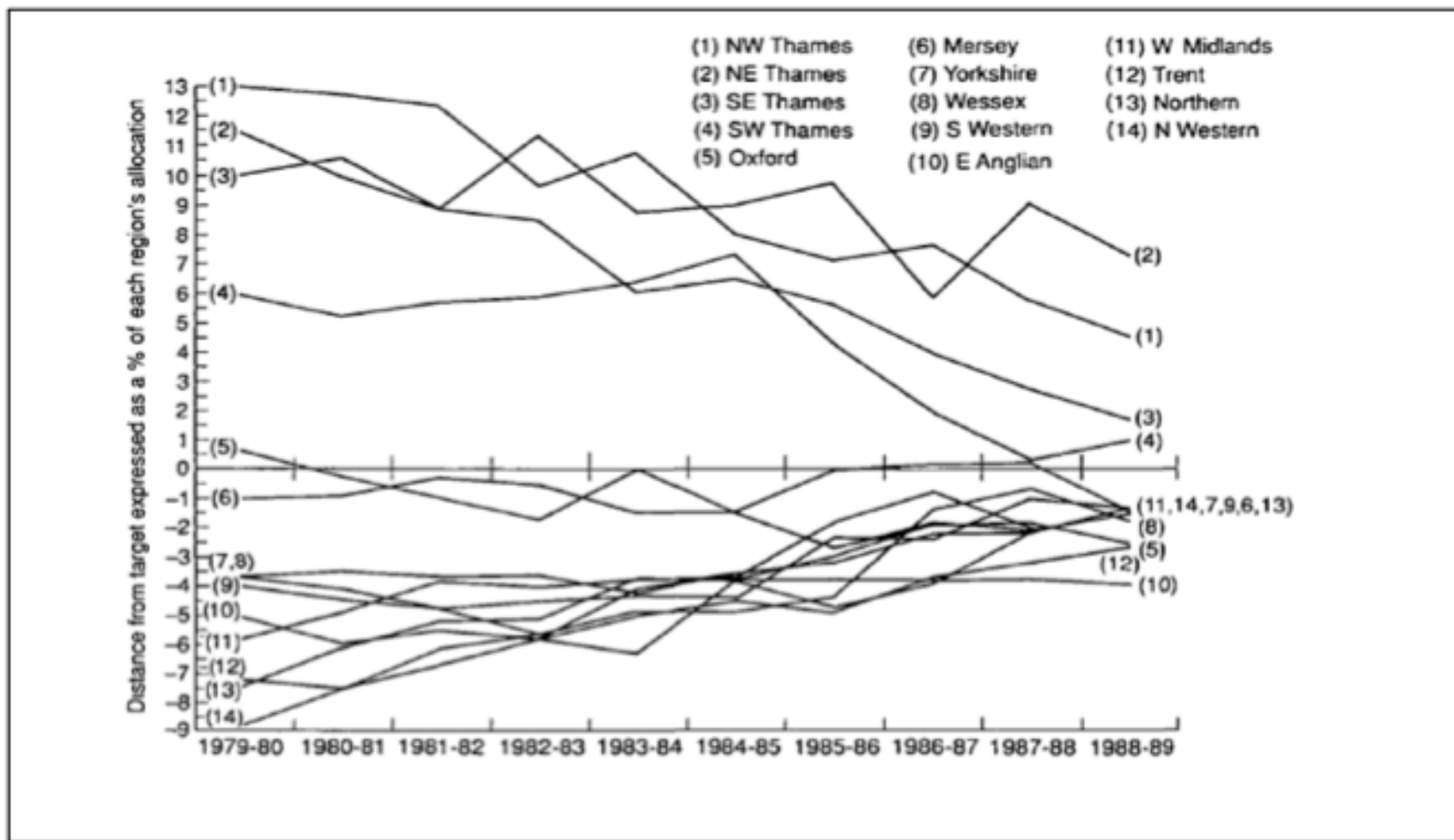


Figure 2: Distance from RAWP formula target, Regional Health Authorities in England, 1979/80-1988/89. *Source: DHSS, Review of the Resource Allocation Working Party Formula, London: HMSO, 1988, Figure 1.1 p.6*

dispensation was rejected: losers would struggle to maintain services, and would probably close hospitals, while winners might make inefficient use of major increases due to inexperience. Instead the approach was one of gradual advance to the RAWP target. The graph illustrates the privileged position of the four metropolitan regions - London and the Home Counties - and the relative disadvantage of the North, with an initial range of budgetary excess or shortfall around the RAWP target of 22%. By 1988/9 this had narrowed to about 11%, or, if the two outlying North Thames regions are excluded, to a range of only 6%.

Here then is evidence for the success of the RAWP, in bringing the regions substantially closer to equalization. The case for success also rests on the claim that the RAWP instilled two enduring principles into health policy. One was that equality of access for citizens with equal need was a desirable, popular and attainable goal. The other was that this should be achieved by empirical formulation, rather than by the informed judgment of civil servants. The second research question the RAWP provokes then, is to account for this accomplishment.

RAWP by the Historians

The RAWP episode is briefly treated in the major NHS histories as well as in three more detailed studies, with several actors in the events amongst its scholars. The official historian of the NHS, Charles Webster, attributes action principally to ministerial leadership. He emphasizes Barbara Castle's role, regarding RAWP as part of her larger programme of priority setting (Webster 1996: 606-13). An avowed admirer of an egalitarian NHS, Webster is critical of the RAWP's 'limited progress', considering this to have been slowed by Treasury hesitancy and Thatcherite disinterest (Webster 2002: 84-7). Geoffrey Rivett, author of another major survey text, was a DHSS civil servant in the period. He similarly attributes the RAWP initiative to Labour politicians, with Richard Crossman (Secretary of State 1968-70) as the progenitor, and Owen and Castle responding to a 'deep-seated political imperative to redress the inequalities in provision'; he sees this as a consequence of the 1974 reorganisation, which

exacerbated inequities when the costly teaching hospitals were integrated into regional authorities (Rivett 2015). He is more accepting of its effectiveness, noting particularly its effect on London.

Rudolf Klein treats the RAWP only briefly, though he himself was involved, initially as a researcher with the ear of David Owen, and later as a health policy expert. He depicts the RAWP as a creature of technocratic planning within broad political consensus, and thus emblematic of the era that Thatcherism later swept aside (Klein 2005). Its prevailing ideology of efficiency allowed 'paternalist rationalisers' to dominate the field, with the RAWP an exercise in 'rationing' (the pejorative term preferable to the euphemistic 'resource allocation'). Eschewing evaluation, Klein notes comparatively slow progress towards equalisation while acknowledging its work in addressing London's over-provision.

Turning to more specialist accounts, Walter Holland includes the RAWP, of which he was a member, in his history of health services research (HSR). Holland was the University of London's first Professor of Social Medicine, based at St Thomas's Hospital, and had come to HSR from epidemiology (Holland 2013). He explains RAWP as politically inspired by pressure from Northern MPs who observed that their constituencies were underserved by new medical facilities. His own contribution figures prominently, highlighting the influential St Thomas's research agenda on resource distribution and epidemiological modelling of needs. Holland trenchantly defends the RAWP, arguing that it successfully reduced funding gaps, and functioned with simplicity and transparency, in contrast to later 'fiddles' (Holland 2013: 161-6).

Nicholas Mays and Gwyn Bevan, who worked on the RAWP as researchers in Holland's department in the 1980s, take a similar approach. Their historical survey of earlier policy-makers' attempts to address the issue highlights both the degree of continuity informing the initiative, and the flurry of literature in the early 1970s that triggered action (Mays and Bevan, 1987). Finally, John Welshman's study of the RAWP from the perspective of the Sheffield region broadens the reading of the intellectual precursors. Contra Mays and Bevan's

case for intellectual continuity since the 1950s, he asserts a step change in thinking began in the late-1960s. Welshman also flags the policy role of health economists as an issue which ‘deserves more study than it has received hitherto’ (Welshman 2006: 232).

Sources, Methods and Concepts

The argument here will carry this forward, asserting the role of ideas and actors as a critical variable. It will show particularly that the intellectual impact of HSR and health economics mattered, and that their proponents’ influence from key positions in the policy-making architecture was instrumental, both to the genesis of the RAWP, to its recommendations and to the embedding of its findings. It builds on recent work on disciplinary developments in postwar public health research which has deepened understanding of the research/policy relationship (Sheard 2013; Holland 2013; Shergold and Grant 2008). It also draws on the archival record of the RAWP period which is now mostly in the public domain (with the exception of material relating to the late-1980s RAWP Review, for which our freedom of information requests remain unsuccessful). It relies too on recent oral and written memoirs of participants and key civil servants, who, with the benefit of distance offer candid and illuminating reflections.

In order to conceptualize these issues a theoretical resource from political science, the ‘advocacy coalition framework’ (ACF), is employed. Associated principally with Paul Sabatier, this has gained traction as a useful heuristic for understanding policy processes in liberal democracies (Sabatier 1988). It emerged to address inadequacies of existing models. For example pluralist approaches that treated policy as balancing the demands of competing interest groups neglected the power of changing ideas to shape outcomes. Similarly, institutional approaches that set out programmatic ‘stages’ – issue recognition, agenda setting, solution finding, political action – were too focused on temporal processes rather than causal mechanisms operating over a long run (Heintz and Jenkins-Smith 1988; Jenkins-Smith and Sabatier 1994).

The ACF instead depicts change as the outcome of struggle between groups within a given 'sub-system', or field, of policy. An advocacy coalition includes all actors whose beliefs and ideas shape a shared goal: thus it can include bureaucrats, legislators and formal interest groups, but also academics, journalists and others. The assumption is that research evidence matters because it furnishes resources to advocacy coalitions as they seek to influence 'policy brokers' - ministers and senior civil servants. However, such 'policy-oriented learning' does not translate swiftly or rationally into action: politics is too determined by core beliefs about the world, anchored in emotion or instinct, for this to occur (Schlesinger 1968: 285; Sabatier 1988: 143-7). Indeed the ACF holds that all public policy change is essentially a 'translation of belief' into action (Weible, Sabatier, McQueen 2009: 122-3).

Thus members of advocacy coalitions will themselves be motivated partly by their 'deep core beliefs' (for example about the desirability of an egalitarian or a libertarian approach to health systems), partly by 'policy core beliefs' (for example about equal access for equal health needs) and only partly by secondary 'narrower beliefs' on technical aspects of policy, which are open to modification (Jenkins-Smith and Sabatier 1994, 180-82). This does not mean, as some claim, that research only serves to legitimize decisions taken for other reasons (Klein 1990: 503-6, 513; Schlesinger 1968: 283-4). Instead it is assumed to exercise a longer-term 'enlightenment' function, reshaping debate more gradually, and strengthening cumulatively the advantage of one or other coalition (Weiss 1977). Hence a timeframe of at least a decade will be required to observe the effects of research on policy.

While proponents of the thesis emphasize the play of ideas, they also explain policy change by reference to the parameters in which these are debated (Sabatier 1988: 134-9, 155-7; Jenkins-Smith & Sabatier 1994: 183-4; Weible, Sabatier, McQueen 2009: 130-1). Some of these can be relatively fixed. For example, is the constitutional structure in which debates are held conducive or inimical to reaching solutions? Is the nature of the problem essentially practical, or does it encompass value-laden and potentially divisive social factors? The ACF

hypothesizes that where debates are ‘technical and tractable’, then a non-partisan ‘cross-coalition learning’ can occur. Other factors are more short term, including changes of governing party or of the socioeconomic environment, which reframe the policy context and usher hitherto background issues to the fore. A final factor of change can be the composition of the advocacy coalition itself, as new members and intellectual resources are incorporated.

The argument advanced here is that an advocacy coalition around spatial redistribution of health resources formed in the early 1970s. Drawing on the emergent disciplines of HSR and health economics, it crystallised concerns hitherto expressed by disparate voices, which had kept alive Bevan’s original ideal. An oppositional coalition existed, favouring a market-driven alternative, but remained marginal despite some support from health economists. Against both groupings was the tendency of the policy-brokers in the DHSS to maintain the status quo, with any redistribution incremental at best. However, once the RAWP was implemented a new coalition developed, uniting those who stood to lose. The next section therefore examines the first manifestations of this debate under the newly-established NHS.

Proto-coalitions and tendencies

The redistributors

Although it is unrealistic to talk of a ‘redistribution coalition’ emerging in the 1950s and 1960s, it is possible to distinguish early protagonists. The first were located in the Department of Social Administration at the London School of Economics. Brian Abel-Smith, a newly qualified Cambridge economist, was key, as initially was Richard Titmuss who led a group of social policy experts whose pronounced Fabian perspective made them favoured advisers to Labour politicians (Sheard 2013; Halsey 2004). In 1953-6 they worked on the Guillebaud Report, an investigation into the cost of the NHS which demonstrated the good value it offered to tax-payers (Abel-Smith and Titmuss 1956). It also included discussion of underinvestment in new hospitals since 1938, the lack of incentive for regions to use allocations efficiently, and variations in local authority health funding, with attendant impacts (Cmd. 9663 1956). Though not explicitly

challenging spatial inequities, the Report instead argued for better statistical data to support policy making (Cmd. 9663 1956: 250, 267).

A second interested party was the UK Treasury, which expressed early concerns about the method of calculating regional allocations. Its Select Committee on Estimates found that these simply perpetuated existing expenditure patterns, with marginal adjustments for salary increases and inflation. Such an approach meant that 'lack of proper economy can go unchecked and variations in cost between Region and Region may tend to become entrenched' (Select Committee on Estimates 1956: para 19).

The third early advocate was the Acton Society Trust, a non-partisan research charity. Between 1955 and 1959 it published six pamphlets on hospitals and the state, written by its director Teddy Chester, later Chair of Social Administration at the University of Manchester (Acton Society Trust 1958; Snow 2013). Chester described the Ministry of Health's ability to alter established patterns through bidding to the Treasury for extra discretionary funds for extensions or improvements (Acton Society Trust 1958: 28-9). Though noting some shifts in overall distributions away from the Metropolitan Regional Hospital Boards, Chester argued that better empirical evidence was vital if 'dangerous' allocative mistakes were to be avoided. For individual hospitals this should set accurate costing against performance expectations based on national utilization indicators (Acton Society Trust 1959: 7-8). Chester's call for the Ministry to accelerate its external research program (from which his own university department stood to benefit) was echoed by the Trust's chair Sir George Schuster, also a RHB chairman (Acton Society Trust 1959: 49-55).

The Marketeers

Despite the political consensus and public approval that the NHS enjoyed, a strand of opinion existed favouring private medicine in its stead. Narrowly based, principally among reactionary medics and academic economists, this 'marketeers coalition' remained politically marginal (Seaton 2015). However it articulated a vision of medicine in which resource allocation was best expressed

through demand in the marketplace. In their efforts to demonstrate the failings of the NHS by the late-1960s, it was the 'marketeers' who brought forth compelling data showing the persistence of uneven distribution.

A prominent early figure was the economist Dennis Lees who argued in 1961 that health could reasonably be treated like any other good in the marketplace (Williams 1998). Lees had imbibed the ideas of Milton Friedman while studying in Chicago, and subsequently championed neoliberal policies (Anon 2008). His perspective aligned with that of the Institute of Economic Affairs (IEA), a free-market think-tank established in 1955 to promote Hayek's thought (Stedman Jones 2012). Not only did the IEA's leading light, Arthur Seldon, write on health care, it also introduced American critiques, such as James Buchanan's application of public choice theory to the NHS: unbounded desire to consume health services conflicted fatally with resistance to commensurate levels of taxation, so better to let markets adjudicate supply and demand (Jackson forthcoming). A celebrated joust between the IEA and Titmuss occurred over the latter's study of the economics of blood donation, *The Gift*. Titmuss used this case both to demonstrate market failure in health and to argue for the motivating force of altruism. Various economists such as Tony Culyer held an opposing view and a vigorous dispute ensued (Fontaine 2002; Cooper and Culyer 1968).

The misallocation of resources by state inaction was therefore already a theme of the marketeers' coalition when it gained a foothold in the British Medical Association (BMA) in 1967. Doctors were angry that their remuneration was lagging and wanted NHS funding to rise to address this. A BMA faction led by Ivor Jones considered establishing a rival insurance system and flirted with economists critical of the service like Seldon (Mencher 1968). Their report *Paying for Health Services* contained a lengthy Appendix by two health economists, which suggested the 'ideal of equality' was a chimera (Cooper and Culyer 1967). Detailing and correlating indicators of provision, costs, specialist care, and health outcomes, Cooper and Culyer argued that the NHS had failed to deliver 'social justice', that Northern 'more working class areas' were disadvantaged, and 'that discrimination works ... in favour of the better-off

citizens' (1967: 208-14). They adopted the marketeers' position, that the problem was a lack of managerial incentives to address demand, and floated three possible solutions: reversion to private medicine, better planning by the state ('not really a sensible objective'), or a mixed system which injected demand through vouchers or (their preference) insurance (Cooper and Culyer 1967: 207, 242-9). Thus the marketeers' coalition had encouraged sophisticated analysis of spatial inequity, in which British health economists took a more libertarian stance.

Incrementalist policy-brokers

Throughout the pre-RAWP period then, the problem was identified, but remained peripheral in policy circles. In ACF terms, the policy-brokers supported a status quo in which only very gradual change was countenanced. This followed the political upheavals of the service's birth, after which a policy of continuity with prior patterns of funding was adopted. As post-war austerity was gradually relinquished, real increases maintained this status quo. Ministry bureaucrats had some latitude to direct extra funds to poorer regions, though through *ad hoc* assessment rather than statistical principle. This achieved some shifts between 1950/51 and 1958/59: for example the overall share of the distribution to England and Wales of the four Metropolitan RHBs had fallen from 41.7% to 38.3%, while various regions had gained, such as Newcastle, whose share rose from 5.3% to 6% (Acton Society Trust 1959). In the 1960s a new, potentially redistributive, approach emerged with the Hospital Plan, a building program aiming to create a network of district general hospitals. Planning was premised on ideas about optimal bed to patient ratios for the major categories of care, and regional estimates of new facilities required. Renewal of capital stock, and the consequent adjustments to current funding needs, would therefore bring in its train a more rational distribution. Until then, incrementalism could continue.

Discussions about replacing this with a formula approach finally began in the late 1960s. It was becoming clear that the Hospital Plan would not be quickly fulfilled, due to lack of building capacity and a deteriorating national economy

(Crossman 1976). Instead policy under Labour's Richard Crossman turned to reconfiguring the NHS's tripartite administrative structure, which divided the RHBs from primary care and public health. Crossman was particularly frustrated by ministerial impotence over the 'self-perpetuating oligarchies' that ran the RHBs, which he considered to be '80 per cent non-Labour' (Crossman 1976: 255-6, 804). Their constitution had essentially preserved the pre-NHS status quo in which ex-voluntary hospital and consultant elites dominated, tending to privilege the interests of acute care over mental health and geriatrics. It was reorientation towards these programs, rather than spatial readjustment *per se*, that Crossman sought, particularly after various scandals exposed the failings of 'chronic' care (Crossman 1976: 419, 466). However, a Ministry official, Dick Bourton, convinced him of the 'great unfairness to Sheffield, Newcastle and Birmingham' that current financing methods maintained. His 1970 Green Paper on NHS restructuring flagged their replacement by a needs-based population formula as the 'long-run' aim (Crossman 1976: 569). This put in train the creation of the 'Crossman formula' by his adviser Brian Abel-Smith, which was actually implemented under Crossman's Conservative successor, Sir Keith Joseph.

In the event the new formula perpetuated incrementalism. The RHBs collectively put up a 'tremendous struggle to maintain the status quo', although the main difficulty lay with the formula itself (Crossman 1976: 876). This proposed that 50% of a region's allocation should be determined by population size, 25% by its number of existing beds, and 25% by its utilisation levels. As would soon become clear, provision and utilisation rates were faulty indicators of need, because hospital usage tended to follow supply. Nor would population alone help, without some adjustment for anticipated morbidity (Holland 2013). A further complication was introduced by the Revenue Consequences of Capital Schemes (RCCS) portion of funding, which augmented regional allocations to take account of the presumed extra current spending which new building under the Hospital Plan would incur. This tended to favour the Southern regions where more new infrastructure development had occurred. In sum, despite awareness of maldistribution, substantive change was impeded by the policy-brokers'

acceptance of the status quo maintained by regional NHS leaders, coupled with technical uncertainty about how to achieve readjustment.

Consolidation of an Advocacy Coalition

A redistribution coalition emerges

In the years immediately preceding the establishment of the RAWP, it is possible to discern an advocacy coalition emerging to alter this. There are three senses in which this happened. Academic research promulgated the intellectual justification for spatial redistribution; health services researchers and health economists became accepted as technical experts who could offer policy-relevant advice; and individuals conversant with these disciplines and sympathetic to core egalitarian values gained access to policy-brokers (Klein 1976: 468-71). Thus by 1975 a loose advocacy coalition was in place, by no means focused on spatial redistribution as a single urgent issue, but with the belief and expertise to drive 'policy-oriented learning'.

The intensification of public discussion began with Julian Tudor Hart's 1971 *Lancet* paper proposing an 'inverse care law'. A socialist GP, epidemiologically trained and based in industrial South Wales, Tudor Hart argued that medical resources tended to be lowest where population needs were greatest (Tudor Hart 1971). Although his call to action lacked empirical justification this was soon to be supplied by others (WS 2014: 19). Key contributions were made by health economists from the University of York, Cooper and Culyer, then Alan Maynard (1971, 1972), and Peter West (1973), who demonstrated the failings of the Crossman formula. John Rickard, originally with the Oxford Regional Hospital Board, produced a study of unevenness between its areas and later extended the analysis nationwide (WS 2014: 75; Rickard 1974). Another affirmation of the inverse care law in the *Lancet* showed a negative correlation between financial allocations to community health services and the percentage of population in lower socioeconomic groups (Noyce, Snaith and Trickey 1974). In the year of the RAWP's appointment, the *BMJ* carried papers by Gentle and Forsythe, and by Buxton and Klein (1975), the latter reporting regional

variations from national means of hospital services spending of +41% to -23%, with intra-regional differences even greater.

This growing volume of technical analysis is best understood in the light of larger developments in academic public health. The speciality of HSR had emerged in the 1960s initially because epidemiologists became interested in the relationship between service inputs and health outputs (Morris 1957: ch.3; Berkowitz 1998). Medical sociologists and operational researchers providing academic training for NHS managers also contributed, and the sub-disciplinary trappings of a journal (*Medical Care*), and scholarly meetings soon arrived. The availability of funding from the MRC and the Ministry of Health meant that in addition to Holland's group, various other centres became prominent (Bierman et al., 1968). Much effort went into understanding utilization patterns, the better to plan service needs. This included a major survey of Liverpool and Manchester by Robert Logan's cluster at the London School of Hygiene and Tropical Medicine, which included Rudolf Klein and John Ashley (both RAWP actors), and Holland's studies of the St Thomas's Hospital catchment in London (Logan et al., 1972). These demonstrated that usage rates responded to existing provision rather than to underlying population factors, a finding already established by American investigators Milton Roemer and Kerr White (Shain and Roemer 1959; White, Greenberg and Williams 1961). Another pivotal moment was the publication in 1972 of *Effectiveness and Efficiency* by the epidemiologist Archie Cochrane (best known today as progenitor of the Cochrane Collaboration centres for collating systematic reviews). He urged that randomised controlled trials be applied to clinical therapies and procedures to ensure 'effectiveness' (they worked in a laboratory setting) and 'efficiency' (they were cost-effective in the real world), with the ethical imperative that all effective treatment should be free (Cochrane 1972; Berkowitz 1998).

The consolidation of health economics came in the wake of these earlier trends. A social policy specialty within economics had a long lineage, concerned principally with explaining trends in public spending. Jack Wiseman had made this a departmental focus at the University of York, and one of his protégés, Alan

Williams, had narrowed his interests to health and established a research cluster, in which Culyer and Maynard became major figures (Croxson 1998). An early symposium convened by Wiseman announced the specialty's identity and preoccupations (including three papers on resource allocation), but it was the inaugural meeting of the Health Economists' Study Group (HESG), again led by the York centre, which definitively signalled arrival (Williams 1998; Hauser ed. 1972). The HESG went on to become a forum for engaging academics and policy-makers, and Williams' stewardship ensured British health economics adopted an advisory posture compatible with the NHS. Contra Dennis Lees, Williams had argued that the economics of the firm did not well suit analysis of health, a position also developed in the United States by Kenneth Arrow, who identified market failures of commoditised health care, arising from information asymmetries between patient and doctor and consequent trust problems (Williams 1998). Later Williams declared himself supportive of Cochrane's egalitarian philosophy, believing that economics brought to it the dispassionate tools of assessment (Williams 1997).

Actors and relationships

These disciplinary developments bore upon the redistributors' coalition in a practical sense: people espousing new ideas now confronted the policy-brokers more closely. In an early placement with the Treasury Williams riled health officials by criticising the lack of statistical indicators on which to base policy decisions (Williams 1997). Cochrane was amongst his audience, and liked what he heard, subsequently recruiting an economist, David Pole, to his department of epidemiology at the University of Cardiff (WS 2014: 79). Pole was a Cambridge-trained contemporary of Abel-Smith, and after Cardiff moved to join the Economic Adviser's Office (EAO) at the DHSS; he was also a HESG member. York's direct influence came not only from Culyer, Cooper and Maynard's interventions, but from the careers it fostered. Peter West was a PhD student of Culyer's, who followed a parallel trajectory to Pole, as an economist joining Holland's Community Medicine unit to work on resource allocation (WS 2014: 21-2, 31). Terri Banks, a DHSS official who later played a major part in implementing RAWP, had learnt economics methods from Williams while he was

seconded to the Treasury (personal communication, October 7, 2015). Jeremy Hurst and John Rickard were both early HESG members who worked with Pole at the EAO and were involved with RAWP (WS 2014: 79-80; Croxson 1998; Hurst 1998).

Finally, Brian Abel-Smith, with whom the concern for indicators of health resource allocation had begun in the 1950s, had achieved an influential position. Now an international leader in health systems statistics, he had acted as a special adviser to Crossman and understood the workings of the DHSS (Sheard 2013). With Labour's victory in 1974 he returned to advise Castle and Owen, who valued his expertise and diplomatic skills. They perceived him as 'utterly Labour, to his core', and as someone whose pragmatism counter-balanced idealism (WS 2014: 15). He also remained significant in public policy research at the LSE, where his appointee Bleddyn Davies had analysed spatial inequities in local government, coining the phrase 'territorial justice' (Davies 1969). He helped shape HSR too, chairing the advisory committee of Holland's unit at St Thomas's Hospital (on whose governing board he had sat).

External factors of change

Looking beyond individual agency, what aspects of the external environment, in ACF terms, helped facilitate change? First, it should be noted that the RAWP debate began under a broad consensus over the core values of the NHS. It could be positioned as essentially a technical question of means, which assumed the ends of spatial equity were uncontested. The Conservatives had accepted these in principle when they implemented the Crossman formula, so in parliamentary terms this was a neutral issue. A new GP contract had quelled the libertarian rebels in the BMA, removing momentum from the marketeers' coalition. A window opened in which resource allocation policy could be discussed without immediately provoking controversy.

Various other factors made it politically attractive. By 1975 the health care economy was entering a transition. The fiscal crisis of European welfare states was just beginning, as OPEC-induced oil price shocks coincided with the end of

the *trentes glorieuses* (Lowe 2005: 315-27). Although NHS spending remained relatively high under Castle in comparison to the tighter settlements demanded later, it was clear that the years of expansion were over (Appleby 1999). Ministers now accepted that the challenges of inequality would not be resolved by steadily rising NHS budgets.

David Owen also favored an active policy towards the NHS. Coming from a medical background, he saw it as embodying British values of altruism and citizenship rights, but felt strongly that the inequalities agenda had drifted (Owen 1976: 1, 3, 172). Now that Keith Joseph's 1974 reform had resolved debates over the NHS's administrative structure, it could be revived. Moreover, with financial strictures looming, the case for adjustment could be made on grounds of allocative efficiency, thus spiking the guns of those set to lose from social redistribution (Owen 1976: 49-54). Finally, although the ACF approach minimizes individual actors, Owen's intellectual capacity to master a complex brief, his willingness to confront vested interests, and his impatience with temporizing mandarins should be noted (Webster 1996: 747-9; WS 2014: 74-7). For all these reasons the redistributors' coalition now had its opportunity.

The Redistributors' Coalition in Action

Inception of the RAWP

Two contradictory accounts of the RAWP's establishment are provided by key actors. Walter Holland recalls that Abel-Smith suggested his St Thomas's unit should conduct research into resource allocation shortly after Labour's return to office. He devised a complex randomised trial of health authorities, selected to represent places with high or low cardiovascular, cancer and perinatal mortality. Some would receive earmarked financing to address these, while others would receive a general funding uplift, and the health outcomes would then be compared (Holland 2013: 161-2). Owen promptly vetoed this proposal on the grounds that it was politically problematic to offer apparently beneficial interventions to one group alone (WS 2014: 25). Shortly after though, Holland was invited to join the RAWP, which Owen announced in May 1975, and he

believes his draft proposal, coupled with Abel-Smith's urging, sparked Owen's initiative. By this stage Abel-Smith would have been well aware of research showing that the combined effect of the Crossman formula and the RCCS were worsening the problem. Moreover Castle trusted Abel-Smith and willingly delegated to Owen provided he was involved (WS 2014: 13-14).

David Pole's alternative account begins with a summons to advise Owen on principles of capital allocation. Owen had been asked to approve a new hospital in Conservative-supporting Lincolnshire, and was considering the justification, when other towns were equally deserving, such as in Labour Lancashire (WS 2014: 74-6). Pole's investigation began with the senior DHSS official responsible for capital schemes, who explained that the 'imponderable elements' were such 'as to make rational planning impossible', before joking that 'one found out where the local MP and the chairman of the hospital board lived, and took it from there' (WS 2014: 74) Such was the confidence of incrementalist mandarins in their existing approach that they tried to dissuade Owen even from reading Pole's subsequent report. 'Owen did, of course, read it' and 'immediately set up the ... RAWP' (WS 2014: 75). Pole also credits Abel-Smith's intervention, believing that their personal Cambridge connection explains why the hitherto marginal EAO gained Owen's attention (WS 2014: 78).

Whatever the precise causal factors, the RAWP's establishment placed key advocacy coalition figures in positions of influence. The main committee included Holland, Forsythe and Pole, who also figured alongside others in the three sub-groups where the analytical work was done. These were: RAWP(R), tackling the main revenue expenditure formula (Holland, Forsythe and Rickard); RAWP(C) addressing capital allocations (Forsythe and Rickard); and RAWP(T&R), responsible for assessing what teaching and research increment would be needed (Holland, Snaith and Hurst) (National Archives. 1975a).

Problem parameters: technical issues or core values? ii)

ACF theorists draw attention to the manner in which an advocacy coalition formulates and tackles a policy problem (Jenkins-Smith and Sabatier 1994: 191-

3). Can it be framed as essentially a technical issue, where disagreements hang only on 'secondary' scientific criteria? Or, as is often the case with matters of social policy, does it touch on core political values and thus court controversy in the public realm? If the latter, then opponents may question a policy's legitimacy rather than restricting debate to its detail, thus increasing the likelihood of failure. Although the RAWP enjoyed cross-party consensus at its launch, this was by no means guaranteed to last. London regions that stood to lose accommodated powerful interests in medicine and academia who potentially might mobilise dissent. How then did the RAWP coalition succeed in coalescing support for core policy beliefs?

One answer is that although its initial terms of reference were technocratic, the committee skilfully reworked these to consolidate non-partisan ethical credentials (WS 2014: 41). Its brief from Owen had been to devise 'a pattern of distribution responsive objectively, equitably, and efficiently to relative need' (DHSS 1976: 5). The report however reinterpreted 'the underlying objective' as: 'to secure, through resource allocation, that there would eventually be equal opportunity of access to health care for people at equal risk' (DHSS 1976: 7).

The power of this formulation lay in its simple affirmation of equal access for equal need. Further moral high ground was staked by the report's title: *Sharing Resources for Health in England*. This discursive positioning of centralised rationing as fairness and mutuality inhibited potential opposition, for who in the British polity could reasonably dispute these principles?

Another key factor was the attention to consensus-building in the committee's make-up and working. It combined representation of DHSS and NHS staff, including authorities in both the South and the more deprived regions (Mays and Bevan 1987). It also ensured a gradualist transition by issuing an interim report in August 1975, which set the next year's formula pending final proposals. This signaled the direction of travel, though not the extent of what was planned. It combined in a ratio of 3:1 the first steps in the new population weighting calculation (Figure 1, Rows 1 & 2) with the Crossman formula's inclusion of

existing utilization; it also maintained the RCCS portion, favoring the South, and applied a new increment to support teaching hospitals. Finally it gave the DHSS latitude to avert objections by introducing the premise of a 'floor' and 'ceiling', so that no RHA's allocation decreased or increased beyond +/-2.5% (National Archives 1975b: 7, 8, 12; DHSS 1976: 94). Alongside its statement of key principles this signaled only a modest departure from incrementalism.

Nonetheless the aftermath of the Interim Report was a dangerous juncture when the issue might have flared into controversy. A *BMJ* editorial, 'Painful Redistribution', caught the attention of the tabloid press, which spun the story as 'Axe to fall on hospitals – Ministry's secret plan' (National Archives 1975c). The capital's *Evening Standard* similarly announced that 'London bears brunt of new NHS cuts'. Staff interest groups such as the National and Local Government Officers' trade union, the Institute of Health Service Administrators and the Health Visitors' Association were also exercised about threats to jobs and services (National Archives. 1975d).

However, the policy core remained intact. Of the regions, only the London authorities were actively opposed, with objections not leveled at principles, but at immediate budgetary implications (National Archives 1975e). For example it was argued that savings would necessitate service cuts, meaning the poorest districts within the over-funded regions would suffer too. In addition to Southern lobbying against too-rapid adjustment, several regions argued that the formula took insufficient account of social deprivation, and that the teaching allowance and London weighting proposals were as yet unconvincing (National Archives 1975f). In sum, the inflammatory aspect of the debate was articulated as a 'cuts scare', not as a controversy about promoting equity over localism. Castle was able to neutralize the former objections when, following annual departmental negotiations with the Treasury, she secured a budgetary settlement large enough to ensure a 'floor' that protected loser regions (National Archives 1976a). Remaining objections were not counter-proposals, but practical concerns about pace of implementation, and about making the formula *more* redistributive (National Archives 1976b).

The final element positioning the RAWP debate as a technical problem, bounded by agreement over core values, was the ‘buy-in’ of mid-level bureaucrats. ACF theory does not attend greatly to civil servants as members of an advocacy coalition, though it has noted for example, that they tend to be more moderate elements within the coalition, and may retain powers of clientelism (Weible, Sabatier and McQueen 2009: 129; Cairney 2012: 213-14). The RAWP example affirms this, but reveals something more. Owen had sought a formula that was ‘readily available at all relevant levels of aggregation’, ‘would reliably predict ... variation in health need between localities’, was ‘unambiguous’ and would ‘reflect ‘need’ alone and not be influenced by supply’ (National Archives 1975i). Evidence suggests that as the process unfolded the DHSS members came to believe that this could be achieved, and that by its end they had a methodology that was transparent, workable and defensible.

Crucial to garnering this internal support was the formula’s most innovative feature, the application of regional Standardized Mortality Ratios to adjust population allocations for ‘need’ (as proxies for morbidity) and ‘deprivation’ (because they correlated closely to poverty indicators). Its adoption is illustrative of the advocacy coalition in action, although again there are conflicting accounts. Pole claims that it occurred to him while ‘(p)ondering the problem in the early hours’, while Holland attributes the idea to his St Thomas’s Unit and its comparative analysis of morbidity indicators (WS 2014: 25, 76; Holland 2013: 163). In any event, the documentary record of successive RAWP committee meetings points to joint endeavor between experts in HSR and health economics. (National Archives 1975g, 1975h, 1976c) In January 1976 the strategy was approved and the RAWP(R) sub-committee tasked with finalizing the formula (National Archives 1976d). Confidence grew following a modeling exercise, which showed that the over-bedded but comparatively deprived Mersey region would suffer less than the interim report had implied (National Archives 1976e). By early 1976 the RAWP felt it had an accessible and acceptable formula with which to proceed.

Civil service buy-in to the ‘policy core beliefs’ was therefore explicable in terms of the science, but there was another individual factor which the ACF does not well capture: the role of John Smith, the RAWP’s chairman. Now a DHSS Under Secretary, Smith was an economist who had come to health administration from a background in social security when the two sides of the Department merged. He thus epitomised a changing departmental culture, as health policy opened up to ‘economists, the statisticians, the operational research people’ (WS 2014: 32, 34). Smith was also sufficiently senior to be unfazed at upsetting colleagues whom the RAWP disempowered (WS 2014: 79). Less tangibly, his style had the ability to inspire staff, and oral reminiscences of his leadership are fond and admiring. Lis Woods, one of the RAWP secretariat recalls:

‘... he was very clear that we must not aim for perfection; perfection was impossible. What we must and could aim for, and was possible, was *less imperfection*. I think that principle again helped us to do something practicable that worked and lasted’ (WS 2014: 35; National Archives 1975b: 2)

Thus as implementation neared, an *esprit de corps* was fostered in support of this ‘least imperfect’ solution, within a broad consensus over equity goals.

Implementation and the ‘Losers’ coalition, 1976-1989

Counter-Coalitions and Changing Policy-Brokers

Although it was launched in propitious circumstances with strong political backing, the RAWP’s embedding was far from certain. A counter coalition emerged, which articulated stronger objections. The outlook of the policy-brokers altered too, particularly when Thatcherite conservatism challenged the ideological and partisan dynamics. Internal review processes also presented opponents with opportunities. Despite this, the advocacy coalition supporting the RAWP formula held firm, sustained by civil service support. The problem parameters remained largely technical, and belief in the policy was sustained, even as challenges to the NHS’s core values emerged. The result was that ‘cross-coalition learning’ could take place, with consolidation and refinement of the formula. This final section explains how.

An angry response of loser regions and hospitals followed the Report, but attacks on core principles quickly gave way to debate about the risks of rapid implementation. Early critics included London consultants Sir Francis Avery-Jones and, from a 'marketeer' position, Reginald Murley of the Fellowship for Freedom in Medicine. They argued emotively that the RAWP formula neglected 'conurbation factors' and social deprivation, which local clinicians could perceive better than 'administrators' (Avery Jones 1978; Murley 1976). The Royal College of Surgeons, and also the editors of *BMJ* challenged the RAWP methodology in defence of the South-East, though this attack was short-lived (Anon 1976; Heslop 1977). Provincial BMA members were incensed at their national leadership lending support to 'London's howl of dismay', which to under-resourced regions seemed like special pleading (Hole 1976; Lockley 1977). However, more compelling arguments emerged from London's primary and community care sectors, experiencing rising demand as hospital services contracted (Jarman 1978). Brian Jarman, a GP and academic from St Mary's Hospital, developed a new deprivation index to capture excess medical need attributable to poverty in inner-city practices, which implicitly challenged the RAWP formula (Jarman 1983). Community Health Councils, the NHS's newly created public representation bodies, also joined the fray in RAWP loser areas of the South (see Figure 2) painting adjustments as 'cuts' (Langton-Lockton 1978).

Despite these budding objections, in the later 1970s the policy-brokers and the external environment remained favourable, even after the new Labour leader James Callaghan elevated Owen to Foreign Secretary and dismissed Castle. Her successor David Ennals nonetheless maintained the inequalities agenda, including both the RAWP and Castle's 'programme budgeting' initiative (Webster 1996: 606-9). This was a related planning exercise that sought to redistribute resources across 'client groups', essentially to shift expenditure away from acute hospitals and towards older people, the physically impaired and psychiatric patients (DHSS 1976b). Ennals also commissioned an enquiry chaired by Sir Douglas Black into the third dimension of inequality, the relationship between health outcomes and class, income and occupation (Webster 1996: 612-13).

Despite this continuity, Ennals' tenure contained two flashpoints which might have presented an opportunity to the RAWP's opponents. One was the Royal Commission on the NHS, into which the Wilson government had been bounced in 1975 to assuage professional anger during a bitter dispute over private practice. In 1979 this produced the 'first comprehensive, independent' report on the NHS, including the RAWP (Webster 1996: 725). Some of its evidence critiqued RAWP's 'centralising tendencies' and crushing of local diversity (National Archives 1976-9). However, it ultimately reaffirmed the policy's core values. Its review of the formula noted some of the underlying 'heroic assumptions' and stressed that perfect spatial equity was a chimera, but it accepted the 'principle of equity', and endorsed the mechanism as 'rational and equitable' (RCNHS 1978: 3, 25, 27; RCNHS 1979: 344-5). Otherwise its concerns were methodological, for example over the proper adjustments to be made for teaching hospitals (RCNHS 1979: 282, 345-6, 374).

The other area of potentially flammable debate was internal. Ennals had established a DHSS Advisory Group on Resource Allocation (AGRA) 'to consider minor changes' to the formula, relating to issues like patient flows, age/sex patterns of utilization and age-specific mortality weightings (National Archives 1978e). The unspoken motive, however, was concern about RAWP's impact on London. The capital's areas and districts had begun developing different approaches to calculating sub-regional allocations, and AGRA was urged to intervene quickly, lest this become 'extremely damaging' (National Archives 1978b). Accentuating the difficulty was the work of the London Health Planning Consortium, whose remit was health services reconfiguration, and the Flowers Review of medical education in the capital. These both were concerned about over-supply in the acute hospital sector, and seemed certain to exacerbate the RAWP squeeze when they eventually reported.

Civil servants had therefore to tread a delicate line, preventing AGRA from becoming a platform for special pleading while also retaining enough latitude to manage the London situation. John Smith managed this by keeping at arm's

length the teaching hospital representatives or those with a 'radical ... but dangerous voice' (National Archives 1978a). He also obtained an additional weighting for London, reflecting its supra-regional and specialty services, ignoring concerns that this was 'protection for the status quo' and a 'backdoor method of funding the London teaching hospitals in the style to which they are accustomed' (National Archives. 1978b 1978c, 1978d). This careful balancing act prevented AGRA becoming a forum for dispute, and its final report in early 1980 endorsed the RAWP's core principle of equal access for equal need, while urging ongoing research to allow fine tuning of the formula (DHSS 1980; WS 2014: 56-7).

Thatcherism and the resilience of 'policy core' beliefs

The external context changed more emphatically after 1979, with the Thatcher government's victory heralding new policy-brokers. There are several reasons why this threatened the RAWP process. First, the Conservative government's willingness to 'think the unthinkable' on welfare initially seemed likely to revive the marketeers' coalition (Banks 2014). Free market think-tanks articulated neo-liberal critiques of social policy, and the government's Central Policy Review staff actively explored switching to an insurance based model of health service funding (Lowe 2006). Second, Thatcherite creed held that 'inequality is not only just, it is necessary to freedom itself', both as reflection of innate difference and as reward for wealth generation (Thatcher 1991). The idea of directing public policy to ameliorating inequalities of health outcomes was incompatible with this worldview, as indicated by the rejection in 1980 of the Black Report by the new Secretary of State, Patrick Jenkin (Berridge and Blume eds. 2003). Equality of access might be vulnerable too. Third, the party political calculus had shifted. Now it was representatives of the loser regions that wielded parliamentary power, for Tory strength was historically rooted in Southern England. Finally, Jenkin's early policy direction for the NHS emphasized a revival of localism as an antidote to the bureaucratized central state.

The durability of the RAWP therefore seemed far from assured as the 1980s advanced. Sir Graham Hart, then a leading figure in the NHS Management Board and later Permanent Secretary at the DHSS, recalled:

‘... voices were being heard from Number 10 and other political directions, quite insistently, through the mid-1980s ... saying, ‘What is this, this instrument of torture, RAWP, which is inflicting pain on Conservative constituencies and giving money to Labour-voting constituencies in the north of England?’ It was not an obvious policy you could make stick and carry through with’ (WS 2014: 52-3).

As before, the critical factors in explaining the RAWP’s durability are the continued framing of the issue as essentially technical, and the belief in the policy held by bureaucrats charged with its implementation.

As the 1980s began then, work on improving the formula had stalled, and there were pressures bearing on the Thatcher government to row back from redistribution. Yet the policy core still held. One reason was that macro-economic policy dictated ongoing austerity for social programs, with real growth in NHS budgets now much reduced. In this context the RAWP remained attractive as a driver of allocative efficiency. Jenkin’s successor Norman Fowler was also sensitive to equity issues, quickly scotching talk of a new funding model as politically unviable, a position eventually accepted by senior Conservatives. His argument was undergirded by a DHSS review setting out the problems and risks of insurance-based approaches, which, ironically, was prepared by Terri Banks, the civil servant later responsible, as Director of Health Authority Finance, for managing RAWP (Banks 2014). Thus revival of the marketeers’ coalition was muted, its influence confined to promoting private medical insurance and the contracting of ancillary services. It was also fortuitous that Fowler and his Minister of State Kenneth Clarke both held Midlands seats (Sutton Coldfield and Rushcliffe) so were not subject themselves to immediate constituency pressures from ‘losers’.

By the mid-1980s another juncture was reached at which policy change might have occurred: the RAWP Review. This arose from Fowler’s focus on enhancing

NHS productivity through stronger management and better performance indicators. Following a report by a leading industrialist, Sir Roy Griffiths, he set up a new NHS Management Board, conceived on the model of corporate general management, nominally to take responsibility for planning, implementation and expenditure out of the political arena (Edwards & Fall 2005). In December 1985, shortly after its establishment, Fowler tasked the Board to recommend improvements to the RAWP formula in light of experience, new research and consultation. Though instructed to prepare recommendations within a year, the Review team proceeded slowly, issuing an interim report in 1986 and requesting further time for research. A final report appeared in 1988, recommending several changes to the formula.

The RAWP Review illustrates again how those sympathetic to the policy core ensured that debate centered on means, not principles. As with AGRA, members were appointed not for interest representation, but for technocratic ability, such as John Ashley, an epidemiologist specializing in morbidity measures (Ashley and McLachlan eds. 1985). The Board also stated explicitly that the principle of equal access for equal need was 'not in question', (NHS Management Board 1988).

Even so, two issues threatened fundamental change. The first was the question of whether RAWP should be discontinued once it had removed historic inequities, which by now had been 'substantially reduced' (NHS Management Board 1988: para 1.2). This was firmly rejected: demographic change was ongoing so a national formula should be maintained (NHS Management Board 1986: 8). The second issue was whether SMRs as an indicator of need should be abandoned, and now Jarman proposed an alternative formula that incorporated various social factors (such as measures of overcrowding and lone parenthood) alongside existing utilization (NHS Management Board 1986: 12-14, E5-6). Again this was rejected due to the problems of basing the formula on utilization and the risk of double-counting arising from the correlation between SMRs and deprivation indices.

Between the Interim and Final Reports debate hinged on specialized methodological matters. This was conducive to cross-coalition learning, but not a challenge to policy beliefs. Jarman now argued for better sensitizing the SMR measure to social deprivation and the Review commissioned the accountants Coopers and Lybrand to lead a small area analysis of the problem. It concluded that need for health services was determined by social factors above and beyond those captured by the SMR, and that Jarman's 'under-privileged area' (UPA) index could model these. The weighting of SMR to need ought therefore be reduced from 1:1 to 0.44, and the UPA index introduced to adjust for social influences (NHS Management Board 1988: paras 2.1-2.52). The ensuing debate was mostly arcane, centering on the conceptual entangling of utilization and need, and the appropriateness of Coopers and Lybrand's regression analysis (Morgan, Mays and Holland 1987; Carr-Hill 1988; Mays 1989). Occasionally rancorous 'core belief' language crept into this technocratic arena. One York health economist condemned the UPA measure as 'methodologically confused ... out-of-date ... and uninterpretable', suspecting the whole endeavor was designed to favor London at the expense of areas in the North and North-West, which by the SMR rankings alone were worst off (Carr-Hill 1988: 10-11). The St Thomas's unit, where the SMR approach had originated, went further, identifying the UPA adjustment lobby as RAWP losers, purveying an 'essentially political' strategy driven by 'powerful interest groups' (Mays 1987: 46, 58). Despite these critiques, the Review endorsed the changes, believing that in practice the effects would be 'relatively small' (NHS Management Board 1988: Table 1.1). Jarman's concerns seemed sincerely driven by the pressures falling on London services, and civil servants shared this perception (Gorsky and Preston eds. 2013: 24-5, 56-60; WS 2014 63). The debate had ultimately remained within existing parameters, and if the resulting compromise displeased some in the RAWP coalition, the intention at least was progressive redistribution to the poorest.

Throughout the 1980s, the behaviour of those mid-level bureaucrats who had initially endorsed the RAWP remained crucial to its ongoing success. Now in senior positions, civil servants such as Terri Banks, Michael Fairey (Director of Planning with the Management Board) and Jeremy Hurst (Senior Economic

Adviser, Economic Advisers Office) retained, in ACF terms, both core and secondary policy beliefs. In contrast to the Black Report on health inequalities, whose costly agenda for change seemed hopelessly unrealistic to civil servants working under Thatcherite ministers, RAWP's compound of equity and efficiency, its simplicity and transparency, and its underlying logic sustained internal support (Klein, 1990: 518-19). When confronted with scepticism, civil servants felt able to defend the policy to Conservative ministers, whose fair dealing ultimately rewarded them (Banks 2014: 12-14).

'I was really surprised ... and pleased, at the way in which officials and ministers – Norman Fowler and Ken Clarke – stuck to the policy, and they took a lot of stick for it... but I can honestly say that there was a real commitment. Terri is a very tough lady and she reminded them from time-to-time what we were supposed to be doing, and they did accept it in the end ... you had to talk through it, but it went on. The redistribution went on' (WS 2014: 52).

In this sense then, the advocacy coalition that emerged in the early 1970s achieved its goal over the long term. Though subject to later changes, such as an adjustment for social inequality introduced by the Blair government, and still at the heart of fierce debate, for example over the proper weight to be assigned to age as a need indicator, the RAWP approach successfully rode the waves of change to become established in English health policy.

Conclusion

In the taxonomy of comparative health systems it is customary to classify the post-war British NHS as the emblematic 'Beveridge' system, whose universalist aspirations were initially distinct from Bismarkian social insurance or more pluralist arrangements. Its history offers a case study of government and medical care in a tax-funded system, where the state is the main provider and health stewardship entwines with broader economic policy. As welfare costs have grown government has increasingly sought to maximise efficiency and cost-effectiveness while acknowledging the electorate's visceral commitment to the NHS as a beacon of equity. To achieve this it has pioneered several influential approaches, one of which was the RAWP, the subject of this essay.

To explain the inception and persistence of the RAWP formula, the Advocacy Coalition Framework approach was adopted. This is attractive because it offers an explanatory model that goes beyond the actions of political elites and narrowly conceived interest groups. In the case of the RAWP, the model yielded helpful insights about the impact on policy of the slow diffusion of ideas, borne by academic experts and mid-level bureaucrats. However, before recommending its utility as a generic approach to the history of health politics a few caveats should be entered. First, European researchers have raised concerns that the ACF model is over-determined by the American political system, from which it was developed (Klein 1990; Cairney 2012). There the division of powers and multiple veto points in the legislative process necessitate broad coalitions to sustain change. By contrast the British polity, with its tendency towards single-party majority government makes ministers less beholden to lobby politics. In this context, as the RAWP case suggests, advocacy coalitions imply a looser affiliation of actors with a level of shared belief and expertise. Second, the emphasis placed by the ACF on the agency of these actors needs always to be balanced against the importance of structural economic forces within which they operate. Here, the imperatives of furthering cost-effectiveness in the 1970s and preserving allocative efficiency in the 1980s provided the context in which the 'enlightenment function' of research ideas could flourish. Finally, while the ACF approach is helpful in reconciling conflicting evidence from personal testimony (as in the contradictory reminiscences of Walter Holland and David Pole), it underplays the importance of the individual and contingent. The intellect and temperament of key figures like David Owen and John Smith, and the fact that Thatcherite health ministers represented RAWP-gaining areas, fall outside the ACF model, but matter to a convincing account.

Nonetheless, the ACF approach proved illuminating, particularly in affirming Welshman's speculations about the debut of health economics in policy circles. Indeed the HESG have themselves historicised the RAWP episode as the first real impact they made on government (Hurst 1998: S48, S51-2, S56-7). It also demonstrated how the 'libertarian' beginnings of UK health economics gave way,

if not to an egalitarian position, then at least to that of sympathiser (Williams 1997: 118; 1998: S3-4). Thus in a 1981 essay the York triumvirate of Maynard, Culyer and Williams declared allegiance to the values underlying the NHS, which balanced freedom, social concern and equality. The economists' job was to help it 'perform better according to its own lights' – part neutral adviser, part advocate (Culyer, Maynard and Williams 1981: 339, 340). That said, the RAWP's history also showed that this budding discipline did not automatically gain influence. Instead it achieved access to power through the offices of others. An earlier generation of expert advisers paved the way, exemplified by Brian Abel-Smith, whose economics was grounded in social administration. The growing interest of epidemiologists in the effectiveness and efficiency of health services also facilitated their arrival.

Another central theme was the behaviour of civil servants as advocacy coalition actors. This idea is not central to ACF theory as originally conceived, but was prominent here, in the importance of buy-in by mid-level bureaucrats who later became senior officials. They represented a new cadre of administrators open to the management sciences of operational research, statistics and economics. Their support turned partly upon faith in the technical aspects of the formula, which despite its imperfections they found workable, transparent and intellectually coherent. And, notwithstanding their retention of some clientelist powers to preserve stable service delivery in London, they also remained committed to the larger principle of equity of access, which extended beyond the transitory leadership of ministers.

There are limits though to the assumptions we can make about the instantiation of core social democratic beliefs, notwithstanding the logic of the ACF approach. It is manifestly the case that since the mid-1970s the British political class, Conservative and Labour alike, has loosened its commitment to welfare (Castles 1998). Comparison with other advanced industrial economies shows that across the spectrum of policy the state has retreated from universalism and social rights (Bambra 2006). Even after the 'New Labour' era, inequalities of health outcome, as measured both by life expectation and by disability free life years have

manifested 'no narrowing of the gap' over time or space (Marmot Review 2010: 48). The coterminosity of this turn with the RAWP era lays bare some contradictions of the policy goal of equity. Where fairness sits comfortably with allocative efficiency then it is more likely to proceed. Where it does not, the appeal to social justice is harder to meet.

References

- Abel-Smith, B. and R.M.Titmuss. 1956. *The Cost of the National Health Service in England and Wales*. Cambridge: Cambridge University Press.
- Acton Society Trust. 1958. *Hospitals and the State: Hospital Organisation and Administration under the National Health Service. Volume 5. The central control of the service*. London: Acton Society Trust.
- Acton Society Trust. 1959. *Hospitals and the State: Hospital Organisation and Administration under the National Health Service. Volume 6. Creative leadership in a state service, a general survey*, London: The Acton Society Trust.
- Alford, R. 1977. *Health care politics: ideological and interest group barriers to reform*. Chicago: University of Chicago Press
- Anderson, O. 1963. Medical Care: Its Social and Organizational Aspects. *New England Journal of Medicine* 269: 839-43.
- Anon. 1975. Editorial. *BMJ* 4:66-67.
- Anon. 1976. What a RAWProar. *BMJ* 2:1280.
- Anon. 2008. Obituary: Dennis Lees. *Independent* 27 February.
- Appleby, J. 1999. Government funding of the UK National Health Service: what does the historical record reveal? *Journal of Health Services Research and Policy* 4:79-89.
- Ashley, J., and G.McLachlan eds. 1985. *Mortal or morbid? A diagnosis of the morbidity factor*. London: Nuffield Provincial Hospitals Trust.
- Avery Jones, F. 1976. The London hospitals scene. *BMJ* 2:1046-1049.
- Avery Jones, F. 1978. Getting the NHS back on course. *BMJ* 2:5-9.
- Bambra, C. 2006. Health Status and the Worlds of Welfare. *Social Policy & Society* 5:53-62.
- Banks, T. 2015. Memories of Health Finance 1970-86. Wellcome Library, manuscript MS.9177.
- Bennett, A. and W. Holland. 1977. Rational Planning or Muddling Through? Resource Allocation in the N.H.S. *Lancet* 309:464-466.
- Berkowitz, E 1998. History of Health Services Research Project, Interview with Kerr White. National Information Center on Health Services Research and Health Care Technology, URL: <http://www.nlm.nih.gov/hmd/nichsr/white.html> accessed 17th Feb 2013

- Berridge V., and S.Blume eds. 2003. *Poor Health: Social Inequality Before and After the Black Report*. London: Frank Cass.
- Bevan, A. 1946. National Health Service Bill, Second Reading. *Parliamentary Debates (Hansard) 5th Series, Volume 422*.
- Bevan, A. 1952. *In Place of Fear*. London: Heinemann, 75.
- Bierman, P., E.Connors, E.Flook, R.Huntley, T,McCarthy, P.J.Sanazaro. 1968. Health Services Research in Great Britain. *Milbank Memorial Fund Quarterly* 46:9-102.
- Buxton M. and R.Klein, 1975. Distribution of Hospital Provision: Policy Themes and Resource Variations. *BMJ* 1:345-9.
- Cairney, P. 2012. *Understanding Public Policy: Theories and Issues*. Basingstoke: Palgrave Macmillan.
- Carr-Hill, R. 1988. *Revising the RAWP Formula: Indexing Deprivation and Modelling Demand*. York: Centre for Health Economics.
- Castles, F. 1998. *Comparative Public Policy: Patterns of Post-war Transformation*. Cheltenham: Edward Elgar.
- Chalkidou, K., and J.Vega. 2013. Sharing the British National Health Service Around the World: A Self-Interested Perspective. *Globalization and Health* 51:1-10.
- Cmd 9663.1956. *Report of the Committee of Enquiry into the Cost of the National Health Service*. London: HMSO.
- Cochrane, A. 1972. *Effectiveness and Efficiency: Random Reflections on Health Services*. London: Nuffield Provincial Hospitals Trust.
- Cooper, M., and A.Culyer. 1967. An Economic Assessment of Some Aspects of the Operation of the National Health Service. In *Health Services Financing*. Ed. I.Jones, 187-250. London: British Medical Association.
- Cooper, M., and A. Culyer. 1968. *The Price of Blood: An Economic Study of the Charitable and Commercial Principle*. London: Institute of Economic Affairs.
- Crossman, R. 1976. *The Diaries of a Cabinet Minister, Volume III Secretary of State for Social Services 1968-70*. London: Hamish Hamilton.
- Croxson, B. 1998. From Private Club to Professional Network: an Economic History of the Health Economists' Study Group. *Health Economics* 7:S7-S45.
- Culyer, A., A.Maynard and A.Williams [1981] 1991. Alternative systems of health care provision: an essay on motes and beams. In *The Economics of Health, Volume II*, ed.A.J.Culyer, 321-40. Aldershot: Edward Elgar.
- Davies, B. 1969. Welfare Departments and Territorial Justice: some implications for the Reform of Local Government. *Social Policy & Administration* 3:235-252.
- DHSS. 1976a. *Sharing Resources for Health in England: Report of the Resource Allocation Working Party*. London: HMSO.
- DHSS. 1976b. *Priorities for Health and Personal Social Services in England: a Consultative Document*. London:HMSO.

- DHSS. 1980. Report of the Advisory Group on Resource Allocation. UK Government Web Archive.
- Edwards, B., and M.Fall. 2005. *The Executive Years of the NHS: The England Account 1985-2003*. Oxford: Radcliffe Publishing.
- Fontaine, P. 2002. Blood, politics and social science: Richard Titmuss and the Institute of Economic Affairs, 1957-73. *Isis* 93:401-34.
- Gorsky, M. 2008. The British National Health Service 1948–2008: A Review of the Historiography. *Social History of Medicine* 21:437–460.
- Gorsky, M. 2012. Local government health services in interwar England: problems of quantification and interpretation. *Bulletin of the History of Medicine* 85:384-412.
- Gorsky, M., J.Mohan and M.Powell. 1999. British Voluntary Hospitals, 1871-1938: The Geography of Provision and Utilization. *Journal of Historical Geography* 25:463-482.
- Gorsky, M., J.Mohan and M.Powell. 2002. The Financial Health of Voluntary Hospitals in Interwar Britain. *Economic History Review* 55:533-557.
- Gorsky M., J.Mohan and T.Willis. 2006. *Mutualism and Health Care: British Hospital Contributory Schemes in the Twentieth-Century*. Manchester: Manchester University Press.
- Gorsky M., and V.Preston eds. 2013. *The Tomlinson Report and After: Reshaping London's Health Services, 1992-1997*. London:ICBH.
- Halsey, A. 2004. Titmuss, Richard Morris (1907-1973). In *Oxford Dictionary of National Biography*. Oxford: Oxford University Press.
- Hauser, M. ed. 1972. *The Economics of Medical Care*. London: Allen and Unwin.
- Heintz, T., and H.Jenkins- Smith. 1988. Advocacy coalitions and the practice of policy analysis', *Policy Sciences*, 21:263-77.
- Hennessy, P. 1989. *Whitehall*. London: Fontana.
- Heslop, R. 1977. The London hospitals scene. *BMJ* 1:46.
- Hole, R. 1977. The London hospitals scene. *BMJ* 2:1443.
- Holland, W. 2013. *Improving Health Services: Background, Method and Applications*. Cheltenham: Edward Elgar.
- Hollingsworth J.R, and E. Hollingsworth. 1985. Differences Between Voluntary and Public Organizations: The Behavior of Hospitals in England and Wales. *Journal of Health Policy, Politics and Law* 10: 371–97.
- Hollingsworth J.R, J.Hage and R.Hanneman. 1990. *State intervention in Medical Care: Consequences for Britain, France, Sweden, and the United States, 1890–1970*. Ithaca: Cornell University Press.
- Hurst, J. 1998. 'The Impact of Health Economics on Health Policy, and the Impact of Health Policy on Health Economics, 1972-1997. *Health Economics* 7:S47-S62.
- Jackson, B. (forthcoming). Richard Titmuss versus the IEA: the transition from idealism to neo-liberalism in British social policy. In *Welfare and Social Policy in*

- British Historical Perspective, 1850-2010: Essays in Honour of Professor Jose Harris*, ed. L. Goldman and S. Jones.
- Jarman, B. 1978. Medical problems in Inner London. *Journal of the Royal College of General Practitioners* 28:598-602.
- Jarman, B. 1983. Identification of underprivileged areas. *BMJ* 286:1705-9.
- Jenkins-Smith, H., and P.Sabatier. 1994. Evaluating the Advocacy Coalition Framework. *Journal of Public Policy* 14:175-203.
- Klein, R. 1976. The Rise and Decline of Policy Analysis: The Strange Case of Health Policymaking in Britain. *Policy Analysis* 2:459-75.
- Klein, R. 1990. Research, Policy, and the National Health Service. *Journal of Health Politics, Policy and Law* 15:501-23.
- Klein, R. 2005. *The New Politics of the NHS, From Creation to Reinvention*. 5th ed. Oxford: Radcliffe.
- Klein, R. 2013. The Twenty-Year War over England's National Health Service: A Report from the Battlefield. *Journal of Health Politics, Policy and Law* 38: 849-869
- Langton-Lockton, J. 1978. The Realities of RAWP. *CHC News* November:9-10.
- Le Grand, J. 2003. *Motivation, Agency, and Public Policy: Of Knights and Knaves, Pawns and Queens*. Oxford: Oxford University Press.
- Levene, A., M.Powell and J.Stewart. 2004. Patterns of Municipal Health Expenditure in Interwar England and Wales. *Bulletin of the History of Medicine* 78: 635-69.
- Lockley, W. 1977. The London hospitals scene. *BMJ* 1:46.
- Logan, R., J.Ashley, R.Klein and D. Robson. 1972. *The Dynamics of Medical Care: The Liverpool Study into the Use of Hospital Resources*. London: London School of Hygiene and Tropical Medicine.
- Lowe, R. 2005. *The Welfare State in Britain since 1945*. Basingstoke: Palgrave Macmillan.
- Lowe, R. 2006. Financing Health Care in Britain since 1939. In *Financing Medicine: The British Experience*, ed. M. Gorsky and S. Sheard, 242 – 251. London:Routledge.
- Marmot Review. 2010. *Fair Society, Healthy Lives: Strategic Review of Health Inequalities in England Post 2010*. London: Marmot Review.
- Mays, N. 1987. Measuring Need in the National Health Resource Allocation Formula: Standardized Mortality Ratios or Social Deprivation. *Public Administration* 65:45-60.
- Mays, N. 1989. NHS Resource Allocation after the 1989 White Paper: a Critique of the Research for the RAWP Review. *Community Medicine* 11:173-86.
- Mays, N. and G.Bevan. 1987. *Resource Allocation in the Health Service*. London: Bedford Square Press.
- Mencher, S. 1968. *British Private Medical Practice and the National Health Service*. Pittsburgh: University of Pittsburgh Press.

- Mohan, J. 2006. The Caprice of Charity: Regional Variations in Finances of British Voluntary Hospitals, c. 1891–1944. In *Financing Medicine: the British Experience*, eds. M. Gorsky and S. Sheard, 77-92. London: Routledge.
- Moreno-Serra R., and P.Smith. 2015. Broader Health Coverage is Good for the Nation's Health: Evidence from Country Level Panel Data. *Journal of the Royal Statistical Society: Series A* 178:101–124.
- Morgan, M., N.Mays and W.Holland. 1987. Can Hospital Use be a Measure of Need for Health Care? *Journal of Epidemiology and Community Health* 41:269-274.
- Morris, J. 1957. *Uses of Epidemiology*, Edinburgh: E&S Livingstone.
- Murley, R. 1976. Allocation of resources. *BMJ* 2:1192-3.
- National Archives. 1975a. MH 166/1143, DHSS memorandum RPD 18 May 1975.
- National Archives. 1975b. MH 166/1144, DHSS First Interim Report of the Resource Allocation Working Party. August 1975.
- National Archives. 1975c. MH 166/1144, Press cuttings October 1975.
- National Archives. 1975d. MH 166/1145, Summary of Comments from Staff Side.
- National Archives. 1975e. MH 166/1144, RHA letters to RAWP 1-14 October 1975.
- National Archives. 1975f. MH 166/1144, letters from South East Thames, South West Thames, Northern, Yorkshire, North East Thames, Mersey
- National Archives. 1975g. MH 166/1144, RAWP Minutes, 26 September.
- National Archives. 1975h. MH 166/1145, RAWP Seminar (75)1, A.Fenton Lewis & J.Rickard. Hospital in-patient weighting for revenue allocation: a modified procedure. 3 October.
- National Archives. 1975i. MH 166/1143, RAWP(75)5.
- National Archives. 1976a. MH 166/1146, Barbara Castle, Secretary of State, to RHAs, 18 February.
- National Archives. 1976b. MH 166/1146, RAWP seventh meeting, 27 February.
- National Archives. 1976c. MH 166/1146, RAWP(76)3, RAWP Seminar on Friday 14 and Saturday 15 November at Dormy House, Sunningdale. Record of proceedings.
- National Archives. 1976d. MH 166/1146, RAWP 7th meeting minutes, 27 February.
- National Archives. 1976e. MH 166/1146, RAWP(76)5, Sixth report from sub-group on revenue, February.
- National Archives. 1976-9. BS6/1814 Evidence to the Royal Commission on the National Health Service, Rudolf Klein, Centre for Studies in Social Policy.
- National Archives. 1978a. MH 170/358 Advisory Group on Resource Allocation, 8 September 1978, 13 September.
- National Archives. 1978b. MH 170/358 Advisory Group on Resource Allocation, Intra-regional RAWP, 20 September.

- National Archives. 1978c. MH 170/358 Memo Scott Moncrieff to James, 21 September.
- National Archives. 1978d. MH 170/358 Memo Scott-Moncrieff to Smith, 22 September.
- National Archives. 1978e. MH 170/358 Advisory Group on Resource Allocation, Background Information, October.
- NHS Management Board. 1986. UK Government Web Archive, Resource Allocation Papers: Review of the Resource Allocation Working Party Formula Report by the NHS Management Board. UK Government Web Archive.
- NHS Management Board. 1988. Review of the Resource Allocation Working Party Final Report. UK Government Web Archive.
- Noyce, A., J. Snaith, and A. Trickey. 1974. Regional Variations in the Allocation of Financial Resources to the Community Health Services. *Lancet* 303:554-7.
- Owen, D. 1976. *In Sickness and in Health*. London: Quartet Books.
- Perkins, A. 2003. *Red Queen: The Authorised Biography of Barbara Castle*. London: Macmillan.
- Pinker, R. 1966. *English Hospital Statistics 1861-1938*. London: Heinemann.
- Powell, M. 1992. Hospital Provision before the NHS: A Geographical Study of the 1945 Hospital Survey. *Social History of Medicine* 5:483-504.
- Powell, M. 2005 Coasts and Coalfields: the Geographical Distribution of Doctors in England and Wales in the 1930s. *Social History of Medicine* 18:245-263.
- RCNHS (Royal Commission on the National Health Service). 1978. Allocating Health Resources: A Commentary on the Report of the Resource Allocation Working Party, Research paper Number 3, London: HMSO.
- RCNHS. 1979. Cmnd. 7615, Royal Commission on the National Health Service. House of Commons Parliamentary Papers Online, 1979/80.
- Rickard, J. 1974. The Allocation of Revenue Expenditure between Areas in the Reorganised Health Service. Oxford: Oxford Regional Health Authority.
- Rickard, J. 1976. Per Capita Expenditure of the English Area Health Authorities. *BMJ* 1:299-300.
- Rivett, G.C. n.d. National Health Service History, www.nhshistory.net. Accessed 31 July 2015.
- Roemer, M. 1960. Health Departments and Medical Care - a World Scanning. *American Journal of Public Health* 50: 154-60.
- Sabatier, P. 1988. An Advocacy Coalition Framework of Policy Change and the Role of Policy-Oriented Learning Therein. *Policy Sciences* 21: 129-68.
- Schlesinger, J. 1968. Systems Analysis and the Political Process. *Journal of Law and Economics* 11:281-298.
- Seaton, A. 2015. Against the 'Sacred Cow': NHS Opposition and the Fellowship for Freedom in Medicine, 1948-72. *Twentieth Century British History* 26:424-449.
- Select Committee on Estimates. 1956. *Sixth Report for 1956-7*. London: HMSO.

- Shain, M. and M. Roemer. 1959. Hospital Costs Relate to the Supply of Beds. *Modern Hospital* 92:71-3
- Sheard, S. 2013. *The Passionate Economist: how Brian Abel-Smith Shaped Global Health and Social Welfare*. Bristol: Policy Press.
- Shergold, M., and J. Grant. 2008. Freedom and Need: The Evolution of Public Strategy for Biomedical and Health Research in England. *Health Research Policy and System* 6. doi:10.1186/1478-4505-6-2
- Snow, S. 2013. "I've never found doctors to be a difficult bunch": Doctors, Managers and NHS Reorganisations in Manchester and Salford, 1948-2007. *Medical History* 57:65-86.
- Stedman Jones, D. 2012. *Masters of the Universe. Hayek, Freidman and the Birth of Neoliberal Politics*. Princeton: Princeton University Press. (ebook)
- Thatcher, M. 1991. Four Freedoms speech, Krakow, Oct 3, Margaret Thatcher Foundation Archive, <http://www.margaretthatcher.org/document/108284>
- Tudor Hart, J. 1971 The Inverse Care Law. *The Lancet* 297:405-12.
- Webster, C. 1988. *The Health Services since the War Volume I, Problems of Health Care, the National Health Service before 1957*. London: HMSO.
- Webster, C. 1996. *The Health Services Since the War, II, Government and Health Care, The National Health Service 1958-1979*. London: The Stationery Office
- Webster, C. [1998] 2002. *The National Health Service A Political History*. Oxford: Oxford University Press.
- Weible, C., P.A.Sabatier and K.McQueen. 2009. Themes and Variations: Taking Stock of the Advocacy Coalition Framework. *Policy Studies Journal* 37:121-40.
- Weiss, C. 1977. Research for Policy's Sake: The Enlightenment Function of Social Science Research. *Policy Analysis* 3, 4, 531-45.
- Welshman, J. 2006. Inequalities, Regions and Hospitals: The Resource Allocation Working Party. In *Financing Medicine: the British Experience*, eds. M. Gorsky and S. Sheard, 221-41. London: Routledge.
- White, K., B.G.Greenberg and T.Williams.1961. The Ecology of Medical Care. *New England Journal of Medicine* 265:855-892.
- WHO. 2000. *World Health Report 2000. Health Systems: Improving Performance*. Geneva: World Health Organization.
- Williams, A. 1997. All Cost Effective Treatments Should Be Free ... or, how Archie Cochrane Changed My Life! *Journal of Epidemiology and Community Health* 51:116-120
- Williams, A. 1998. Primeval Health Economics in Britain: Personal Retrospect on the pre-HESG Period. *Health Economics* 7:S3-S8.
- World Bank. 1993. *World Development Report 1993. Investing in Health*. New York: Oxford University Press.
- WS (Witness Seminar Transcript). 2014. *The Resource Allocation Working Party: Origins, Implementation and Development, 1974-1990*. Ed. M.Gorsky and V.Preston. London: ICBH.

Yates, R. 2009. Universal Health Care and the Removal of User Fees. *Lancet* 373:2078-81.