A politico-economic analysis of decision making in the funding of Divisions of General Practice

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Abstract

From a normative perspective, conventional economic analysis is often used to establish a framework in which social objectives can be built into the decision making process. The health economics literature, however, tends to overlook the positive analysis of decision making – assuming often that particular social objectives correspond with those that drive actual decision making. This perhaps explains why exercises in health economics priority setting on occasions break down.

This study is a positive analysis of group decision making. It examines the process of deliberating upon proposed changes to funding arrangements across Divisions of General Practice in Queensland, Australia. Existing levels of funding had, for a number of years, largely been determined by an allocation formula. The motivation for this study was a perceived inequity created by the long-term under-funding of smaller (resource poor or 'marginal') divisions.

The challenge in this project was that any change in funding arrangements required the support of all the divisions but also would potentially create 'winners' and 'losers'. This paper documents a consultative process whereby the relevant stakeholders were asked to participate in deliberations as to how such a problem should be tackled. The objective was to force relevant players to take into consideration the global allocation issues and to move beyond their localised interests. The results indicate that such a process can be effective in not only generating the necessary goodwill to enable such group decision making but also in establishing a more realistic set of policy recommendations.

Introduction

Economic analysis can provide useful insights into priority setting in health care. From a normative perspective, conventional economic analysis is often used within a framework in which social objectives such as efficiency and equity are built into the decision making process. In principle, such objectives can be promoted through the use of such tools as programme budgeting and marginal analysis, option appraisal and economic evaluation.

One relatively common method of priority setting involves the establishment of resource allocation formulae. Such formulae are used to determine *ex ante* allocations from a global budget shared across numerous recipients (such as hospitals, geographical regions, health clinics or departments within a health facility). These allocations are typically made on the basis of factors such as need (however defined) and various other characteristics of the population being serviced (such as size, socioeconomic status or gender). In general, these formulae provide transparency in decision making and certainty in terms of future funding levels. They can, however, also be problematical from an economic perspective because they are not always consistent with the principle of decision making at the margin.

Nonetheless, there is scope within such formulae for the inclusion of economic principles as shown in the use of various resource allocation formulae particularly in the UK and Australia (Resource Allocation Working Party, 1976; Carr-Hill and Sheldon, 1992; NSW Health Department, 1996; Resource Allocation and Funding Team, 1999). For instance, various weightings for social disadvantage can be interpreted as measures to promote vertical equity (Mooney, 1996; Mooney and Jan, 1997). Also, initiatives to employ the notion of 'capacity to benefit' as a measure of need can be viewed as attempts to align resource allocation with the principles of cost-effectiveness and cost benefit (Steele, 1981).

Health economic analysis in this area of priority setting has been undertaken largely from a *normative* perspective. It has focused on informing decision-makers about how to achieve specified (and often postulated and assumed by the analyst) objectives. To date, the uptake of economic analysis within health service decision making has been low (Alban, 1994; Maynard and Bloor, 1995; Ross, 1995; Hoffmann et al 2000;). This perhaps reflects the lack of emphasis given to the *positive* economic analysis of decision making. There has been a dearth of research into the question of what are the factors in practice that influence the decision making process. That these may differ from the objectives that are often assumed in economic analysis can provide insights into why it has failed to have much penetration in practice.

This paper focuses on the politico-economic issues in negotiating with the various competing interests involved in a case study of general practice organisations in Queensland, Australia. The underlying issue of concern was that proposed alterations to existing funding arrangements were expected to create winners and losers and therefore a consensus would require some participants to act against what could be seen as their self-interests. Addressing this required the creation of the 'right' institutional environment (through goodwill or otherwise) to enable some form of settlement regarding the appropriate solution (and, by implication, funding levels between divisions).

The next section sets out the background to this case study. Section 3 documents the process of consultation and negotiation with relevant stakeholders to formulate recommendations that would address these funding inequities. In section 4, the methodological implications, particularly in undertaking health economic analyses, are explored. Finally some conclusions for future research are drawn.

Background to study

This project was an exercise in priority setting in general practice in Queensland, Australia. It involved possible changes to a funding formula that has been used since 1993 to allocate resources nationally across Divisions of General Practice. These

Divisions of General Practice are local networks of general practitioners that were established and largely funded by the Australian federal government "to link GPs (doctors) at the local level with all levels of Government, local hospitals, community based service providers… consumers and other medical bodies". In particular, "their role is to improve the quality and efficiency of general practice services" (Commonwealth Department of Health & Aged Care, 1998, p 288).

In Queensland there is wide variation in the size and demographic characteristics of the twenty Divisions. In terms of size, for example, one of the Queensland Divisions has nearly 800 GPs, whilst the smallest has only twelve. In terms of funding, four Divisions receive in the order of $1 million per year and six receive less than $400,000 per year (average $570,000).

The project was undertaken under the auspices of the Queensland Divisions of General Practice (QDGP) – an umbrella body that represents the twenty Divisions at a state level. It was motivated by a concern about inequities in existing funding arrangements. Many of the smaller divisions felt that the funding they received was not adequate to allow them to undertake important program activities i.e. barely sufficient to 'keep their doors open' (referred to as 'marginal' divisions). By comparison, some of the larger Divisions, due to their greater allocations and economies of scale, were able to undertake often quite extensive programs such as financially supported GP education and training. The aim of the project was to consider options for improving the level of funding for the 'marginal' divisions, whilst recognising that there were no immediate prospects of overall funding being increased. The process of negotiating possible changes of this nature was undertaken through consultation involving a series of committee meetings, workshops and surveys in which all parties were given the opportunity to contribute. The study was undertaken as a health economics consultancy.

The existing formula used by the federal government to determine the annual allocation to each Division comprised two components: 'infrastructure' and 'service funding'. It was based on a number of variables: population, patient numbers, rurality, numbers of

Aborigines and Torres Strait Islanders and socioeconomic status. The weightings attributed to each of these variables in the formula were established during its initial development in 1993 and were based on consultations between the federal government and GP representatives. (See appendix.)

In addition to the review of this formula, non-formula based options were also considered. These included postcode exchange (changing divisional boundaries), consolidation of Divisional activities (such as payroll and other administrative services) and amalgamation (the joining of two or more divisions). These other options were principally aimed at improving the capacity of smaller divisions to achieve economies of scale. As a consequence they were less likely to require losses in funding to be sustained by any one division, although they would require significant structural change within the marginal divisions.

The process

The process involved in undertaking these deliberations was designed to be both consultative and participatory. Given the potential for conflicting interests, one of the key principles driving this project was 'divisional ownership'. Its implementation entailed a number of steps comprising (in chronological order) the establishment of three working groups including representatives from the Divisions, a survey of the Divisions, the preparation and circulation of a discussion paper outlining various funding options, a follow-up survey of divisions and a final report with recommendations. Throughout this process, a number of meetings of the working groups, as well as workshops involving all the divisions, were held.

Working groups

As indicated above, the review of the funding formula was part of a larger project to improve the capacity of marginal divisions to undertake program activity. The specific aim of the funding review was to consider options for altering the formula in a way that would increase the funding base of such divisions. This review was carried out by a

Funding Issues Reference Group (FIRG) comprising representatives of thirteen divisions, two representatives from QDGP, one representative from the federal Department of Health and Aged Care (DHAC), and was overseen by two of the authors (SJ and GM) acting as external consultants.

In addition to this, two other groups comprising representatives of the Divisions, QDGP and the DHAC were established to examine other avenues for increasing the capacity of the marginal divisions. The first of these was the core business interest group (CBIG) whose remit was to define and determine the 'core business' of divisions and, in addition, to indicate how much it would cost to provide such core business. The rationale for this was to establish a benchmark set of core activities. The notion of 'marginality' (and by implication, the criterion by which a division would be judged as being under-funded) would then be determined on the basis of where each division stood in relation to this benchmark.

The other working group was the marginal divisions group (MDG). It comprised those six divisions that identified themselves as such. This group had existed prior to this project and had, in effect, been responsible for its initiation.

An important objective in establishing these working groups was that the process of deliberation would be seen to be both transparent and inclusive. Importantly, each of these groups was given specific tasks which participants could clearly see were related to the objectives of the exercise.

Initial meetings of the working groups

At an initial meeting of the MDG, the problems of 'marginality' were identified by the participants and broken down to eight main factors. These were: lack of purchasing power/economies of scale; lack of access to specialist staff; lack of GP ownership/input; lack of corporate governance skills among boards; lack of access to strategic activity; lack of capacity to pursue non-core activities/proposals; lack of collaboration between divisions (cultural/personal); and cross-border flows (i.e. the funding levels received by

some of the divisions did not account for the additional patient loads caused by such flows).

As a result of discussions at this meeting, five options for resolving these problems were identified as:

A. Centralised 'group buying' arrangements such as: auditing, vehicles, insurance, telecommunications, travel, legal, software, hardware, furnishing, data warehousing, business services, printing, human resource services, education services, investment options
B. Amalgamation or collaboration
C. Funding formula review (analysis of weightings and base grants)
D. Establish funding on a contract or bid basis as opposed to formula
E. Postcode exchanges.

It was agreed at the meeting that options A, B and C could to some extent address each of the eight problems related to marginality and would thus merit further examination.

Survey 1

The first survey was drafted by the external consultants and the project manager from QDGP and circulated to all the divisions. It comprised a set of questions asking Divisions to indicate:

- their total level of annual funding received from the federal government as allocated through the formula (and the breakdown between infrastructure and services);
- the type of activities required to maintain a bare minimum level of operation within their division (i.e. 'keeping their doors open') and their annual cost;
- the type of program activities (i.e. those extra activities above those required simply to 'keep the doors open') that were actually being run and their annual cost;
- the implications for their activities if $50,000 per year were taken away and the implications if $50,000 per year were added;
- the sources of any extra funding; and
- their views about how the formula could be changed.

The general aim of this survey was to gain some indication of where possible inequities lay in the funding across divisions. The secondary aims were to foster a consultative process and to provide the divisions with an understanding of the nature of the funding problem from a global perspective i.e. to give a potentially different perspective from that based on the localised interests of individual organisations.

Asking divisions to specify the impact of a change in funding level (of + or - $50,000) was one means by which the costs and benefits of changes in current activities could be identified. Such responses, when reported back to the divisions (see below in discussion paper) offered a potential evidence base for decision making because they entailed explicit acknowledgement of the opportunity costs of changes to the existing arrangements.

There were thirteen responses to this survey. The respondents generally represented a mixture of both marginal and non-marginal divisions, as did the non-respondents and thus there did not appear to be any obvious evidence of response bias. It was found that the average amount of funding divisions required to 'keep their doors opens' was in the vicinity of $350,000 per year. However, the wide range of values given (from $180,000 to $635,000) and no discernible relationship between the type of division and the level of valuation given suggested likely definitional inconsistencies amongst respondents.

In response to the question that dealt with the divisional impact of gaining or losing $50,000, the smaller Divisions commonly responded to the first hypothetical scenario (gaining $50,000) by indicating that they would hire more staff, take out vehicle leases to travel to outlying areas, and offer more practice support services – particularly in information technology. The larger divisions generally indicated that they would consolidate or undertake more strategic work.

With respect to the second hypothetical (losing $50,000), most divisions indicated that they would cut down on population health services or programs. Some smaller divisions

reported that they would become redundant under such a scenario. The larger divisions indicated that they would most likely cut down on administrative staff, GP services, and/or strategic initiatives. One respondent did not answer this question and indeed resisted the view that resource allocation could be cut by suggesting that it is not feasible to examine funding by comparing activities (opportunity costs) across divisions in this way. It was argued that the value of an activity is dependent on the stage of development reached by a particular division and therefore such changes were not directly comparable across divisions.

The survey also asked divisions to identify ways in which the present funding formula could be improved. Some of these possible changes were subsequently modelled and presented in a discussion paper (see below) and put forward for discussion.

Discussion paper

Following the survey, a discussion paper was circulated across all divisions outlining the details of the existing formula, the existing allocations across divisions, an outline of the responses to the first survey and six options for altering the formula. The six options entailed various changes to the weightings applied within the funding formula such as the substitution of population with patient-based weights, the substitution of patient with population-based weights (the existing formula has a combination of both), increased base grant (or 'flagfall') from $50,000 to $100,000, increased base grant from $50,000 to $150,000, increased weighting for socioeconomic status and increased weighting for Aboriginality. Five of the options posited entailed a reallocation from larger divisions to marginal / smaller divisions and one option (the second) entailed the opposite.

Explicitly identified in this discussion paper was how much each of the 20 divisions in Queensland would gain or lose under each option. The aim again was to highlight the opportunity costs of any proposed changes in funding and the financial impact this would have on the parties taking part in the formulation of these recommendations.

In addition to its circulation across all divisions, the paper was presented to a meeting of the FIRG.

Feedback from discussion paper

As indicated earlier, the discussion paper presented, among other things, six options for altering the existing funding formula. This was circulated to all the divisions and presented at a meeting of the FIRG.

Several larger divisions adopted the view that whilst smaller divisions clearly required additional funding, the larger divisions should not be financially penalised for their 'efficiency' and ability to achieve economies of scale. This view was ratified as a principle of FIRG, perhaps surprisingly, with little debate. However, the rationale was the prevailing belief that any 'state based' process which required divisions to adopt collectively a consensus position around options that generated funding losses for some divisions was highly unlikely to be successful. There was also the more pragmatic recognition that if, at a national level, only a small number of divisions were affected by the problem of marginality, then any subsequent national consensus based funding formula change would be similarly difficult to achieve. Given this view, the FIRG focused on other options including the reshaping of divisional boundaries, amalgamation and consolidation of activities (such activities would need to be initiated by participating divisions).

Survey 2

A second survey, again sent to all the divisions, was conducted largely in the wake of feedback received from the discussion paper. In particular, it sought greater clarity in the question of what constituted the 'core activities' and their associated costs.

Following reminders, twelve responses were received (60%) from this survey. Those areas defined as 'core' included: practice information management; information technology; clinical management GP accreditation; and locum/workforce support.

The survey also required respondents to estimate the total costs (i.e. including "infrastructure" costs) associated with the conduct of each of the core programs they each nominated. The responses ranged from $264,000 and $771,000 with the average cost of this package being $400,000. At that time, there were six divisions receiving funding less than that amount.

Final FIRG meetings

The FIRG adopted the view that, in the absence of other changes to divisions' funding, divisions in receipt of funding below a $400,000 threshold could regard themselves as 'marginally viable' over the longer term.

These meetings also reconfirmed the principle that any change in the funding formula should 'disturb as little as possible' the existing funding arrangements for the 'non-marginal' divisions. This was supported with a view to protecting the efficiency gains that some of the (larger) divisions were able to be achieve through economies of scale and 'critical mass'.

The FIRG endorsed the view that marginal divisions should be encouraged to amalgamate where this was felt to be appropriate, as this form of consolidation would improve their efficiency. It was identified, however, that the current incentives to amalgamate were inadequate since for example, two amalgamating divisions would effectively lose one of their base grants (or 'flagfall' component of $50,000 – see formula in appendix).

The following recommendations were agreed upon:

1. That a national working party be established to clarify the core business/core activities of Divisions of GP, as well as to identify the required competencies and resources (structural and financial).
2. That the proposed national working party continue the Queensland work by undertaking a national funding review to explore national views on the various

weightings used in the formula and perceived existing disincentives for divisional amalgamations.

3. Amalgamating divisions should be assisted by maintaining their combined base grant ('flagfall') payments for three years with an additional two year taper period.
4. 'Marginal divisions' (e.g. those with 'threshold level' funding) should be offered financial assistance to investigate alternative organisational structures including amalgamation.
5. That active support should be given to ongoing divisional initiatives in consolidation and collaboration.

As is apparent in these recommendations, there was a strong view at the meeting that potential losses to 'non-marginal' divisions be avoided. The emphasis in these recommendations was for further investigation of options that would entail restructuring within the marginal divisions along with financial incentives for doing so.

Following submission of these recommendations, the federal body (DHAC) agreed to extend this review to a national level and in particular to examine further these recommendations.

Discussion

This project was an attempt to undertake a consultative decision making process over possible changes in funding arrangements across Divisions of General Practice. The use of an allocation formula over a number of years had institutionalised a pattern of funding that resulted in a hierarchy of better and less well-funded divisions. The lessons from this study derive mainly from the processes by which deliberations to alter this existing pattern of resource allocation were carried out. It deals therefore with decision making process across parties in which individual interests differ. The significance of the exercise therefore lies not only in the final recommendations but in the *process* of how the decisions were made.

Ultimately, the consultative process was unable to come up with an agreed recommendation for specific changes to the formula. Given that no additional funding overall was offered by the federal government, this outcome could be foreseen as any change would create winners and losers.

One of the important implications of this process however was that it initiated a degree of change in relationship between divisions by exposing some of the opportunity cost issues of this reform process. This could be seen for example in the way in which surveys were used in this study. Given the self-reported nature of these data, the likelihood of disparities in definition of various terms and possible incentives for gaming, the relevance of the data per se to the formulation of actual recommendations was likely to be limited. (While evidence of gaming could not be tested, the first survey did uncover some degree of disparity over definition of terms.)

In retrospect, the main value of these surveys lay in providing a means of conveying to participants the nature of the choices involved – in effect setting out the 'rules of the game' to participants (relating to the secondary objective set out earlier). The surveys thus formed a key tool by which participants were confronted with the global constraints that were likely to impact on decision making. Furthermore, this process was iterative whereby respondents were made to reflect as a group on their responses and to some extent justify and debate them. As a result, participants were pushed into considering issues that, from the point of view of their own short-term interests, would not necessarily have entered into consideration. It did not force them to abandon self-interest. Instead, it encouraged them to be more sophisticated in their pursuit of it by bringing to bear the external constraints that determined whether an option was feasible.

The effect of this was to bring to the forefront a number of other options such as amalgamation and consolidation that, prior to the undertaking of this exercise, would have been less acceptable to the marginal divisions because it would have required them to restructure significantly and thus bear the full cost of this reform process. Indeed attempts had been made previously to encourage amalgamation and consolidation but

without success. In addition, new avenues for increasing divisional capacity not previously explored such as corporate governance training were initiated as a result of this project. This process was about addressing 'political' as well as the 'economic constraints' on decision making and coming up with options that Williamson (1999) would refer to as 'remediable'.

In general, the process of consultation exposed explicitly to all parties the wider implications of increasing funding to the marginal divisions i.e. the losses sustained by the other (larger) divisions. It thus exposed not only the opportunity cost of such an initiative but also the political realities of the situation – particularly to those who were behind such proposed reallocations. This outcome therefore enabled the process to move on from this stumbling block and created an environment where all parties were pushed into working around these constraints. It is debatable whether a non-consultative process would have achieved this. Without such consultation there would have been little requirement for the divisions to empathise with the type of choices that would have confronted an autonomous decision-maker. Decision making in such a context would be rendered a zero-sum game (i.e. where there are clear winners and losers) because measures to encourage stakeholders to look beyond their localised, short-term interests would not have been in place. As a consequence, when the implementation of such decisions would require the support of all stakeholders, it would most likely have failed because some (i.e. potential 'losers') would have had a clear interest in maintaining the status quo.

As indicated earlier, the uptake of health economic analysis in actual health sector priority setting has been low. One explanation is that health economic analysis has tended to maintain a solely normative focus. This has meant that there has been little emphasis on developing an understanding of the realities of actual decision making. In particular, the implications of broader political constraints have often been left out of the analysis or assumed away. The approach taken in this study draws to a large extent on an institutionalist perspective whereby decision making is viewed more broadly to be a function of not only a narrow set of objectives and resource constraints (as in

conventional forms of analysis) but more widely, the institutional setting in which such decisions are made (Gruchy, 1947; Fusfeld, 1980; North, 1992a; North, 1992b; Rutherford, 1996; Coase, 1998). This provides, among other things, a broader appreciation of the incentive compatibility of various initiatives (Jan, 2000). In the case of the proposed funding change studied in this paper, it provided potentially a more useful guide to decision making than would have been the case if the analysis had focused solely on conventional issues of cost-effectiveness and equity. It brought into consideration the relevant political constraints that would have potentially undermined, in practice, any proposed reallocation of resources to the marginal divisions.

To improve the implementation of health economic analysis, therefore, the onus is for health economists to negotiate some of these political realities of decision making. This study indicates that the greater use of stakeholder consultation and participation in decision making can be important not only to improving implementation, it can in turn also provide a more realistic or ('remediable') set of policy recommendations.

Conclusion

This study did not examine policy making per se. It was a project that involved the formulation of a set of recommendations that ultimately *could* inform policy. (It was established at the outset that any recommendations would not automatically lead to changes in the formula but rather form the basis of a national review.) Nevertheless, the message that comes out has significant implications for policy making. This is because it deals with the more general issue of group decision making. In the context of this study, such decision making took place against a background of competing interests and therefore the challenge was in formulating a set of recommendations that would be acceptable to all concerned. This involved a process of extensive consultation and reflection amongst concerned parties. Such a process altered the institutional setting from that of a perceived zero-sum game to one in which a wider set of options was brought into consideration. The feature of these other options was that they did not separate as starkly the winners and losers. The process effectively allowed the underlying political

constraints that would have otherwise seriously undermined decision making to be made explicit and, in turn, negotiated.

This has major implications for, among other things, the implementation of resource allocation decisions. Because health economic analysis has tended to be largely normative, there has generally been a lack of appreciation of why such decision making sometimes 'fails'. To a large extent, studies of this nature - that examine economic decision making *within* its institutional context - can provide greater insight into why such failure occurs and ultimately provide a more realistic basis for decision making.

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Appendix

The existing funding formula[1]

Total Grant = Infrastructure + Services

Infrastructure = \$50,000 + \$1.30 [max (pop, SWPE)] + RRMA 4 ($pop_{RRMA\ 4}$) + RRMA 5 ($pop_{RRMA\ 5}$) + RRMA 6 ($pop_{RRMA\ 6}$) + RRMA 7 ($pop_{RRMA\ 7}$)

Services = \$1.35 [SWPE / $(SEIFA)^2$] + \$2.55 (ATSI) + RRMA 4 ($SWPE_{RRMA\ 4}$) + RRMA 5 ($SWPE_{RRMA\ 5}$) + RRMA 6 ($SWPE_{RRMA\ 6}$) + RRMA 7 ($SWPE_{RRMA\ 7}$)

** Divisions with pop < 30,000 receive additional \$30,000.

RRMA 4 = \$0.12
RRMA 5 = \$1.36
RRMA 6 = \$1.68
RRMA 7 = \$2.47

These RRMA weights reflect the additional costs associated with the resourcing of rural Divisions and in principle covers the differences in prices between rural and urban areas and the costs associated with travel.

An example

This section uses an example involving two hypothetical Divisions, X and Y, to illustrate the way the formula works.

[1] Abbreviations for variables used: Rural, remote, metropolitan areas (RRMA); Socio-economic index for Areas (SEIFA); Standard whole patient equivalents (SWPE); and Aboriginal and Torres Strait Islanders (ATSI)

Division X is a rural Division with a fairly small population and dispersed population while Division Y is an urban Division with a fairly large. The specific characteristics of these Divisions are outlined in the table 1.

Table 1: Hypothetical data for Divisions X and Y

	Division X	**Division Y**
Population in RRMA 1	-	200,000
Population in RRMA 2	-	-
Population in RRMA 3	-	-
Population in RRMA 4	-	-
Population in RRMA 5	5,000	-
Population in RRMA 6	5,000	-
Population in RRMA 7	10,000	-
Total population	20,000	200,000
SWPE in RRMA 1	-	250,000
SWPE in RRMA 2	-	-
SWPE in RRMA 3	-	-
SWPE in RRMA 4	-	-
SWPE in RRMA 5	4000	-
SWPE in RRMA 6	1000	-
SWPE in RRMA 7	3000	-
Total SWPE	8,000	250,000
ATSI population	1,000	4,000
SEIFA index (where 1 is the national average)	0.95	1.05

On the basis of the existing formula, these two divisions would attract the following allocations.

Funding for Division X

Infrastructure = 50,000 + 1.30 (20,000) + 1.36 (5,000) + 1.68 (5,000) + 2.47 (10,000)
= 115,900

Services = 1.35 (8000 / 0.95^2) + 2.55 (1,000) + 1.36 (4,000) + 1.68 (1,000) + 2.47 (3,000)
= 29,047

Total = I + S + 30,000
= $174, 947 or $8.74 per person

Funding for Division Y

Infrastructure = 50,000 + 1.30 (250,000)
= 375,000

Services = 1.35 (250,000 / 1.05^2) + 2.55 (4,000)
= 316,322

Total = I + S
= $691,322 or $3.45 per person