Reviewing RAWP

Financial incentives of subregional RAWP

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Abstract

Accounting for the cross boundary flows of residents from one health authority treated by another has been considered by the review of the Resource Allocation Working Party (RAWP) formula by the National Health Service Management Board. A common concern is that the approximate costs used are unfair to those authorities (typically those with teaching hospitals) that are likely to treat more complex cases. This paper argues that when spending exceeds the target allowance for acute services this is more likely to be due to district residents using services at a high rate than to inadequate compensation for inflows. Districts where residents make a high use of services are often those where there are large flows across district boundaries. Since authorities cannot control outflows there is little they can do to reduce their residents' high use of services.

Furthermore, curious financial incentives can be inferred for clinicians in these districts if they were to take effective action to bring their district's spending to target levels. These problems are discussed to illuminate problems of accounting for cross boundary flows that alternatives to current practice must resolve.

Introduction

The compensation made for cross boundary flows of patients living in one health authority but treated in another is one issue considered by the review of the Resource Allocation Working Party (RAWP)¹ formula by the National Health Service Management Board.² Health authorities responsible for running teaching hospitals often dispute the fairness of RAWP's arrangements for paying for patients from other districts (cross boundary flows). They argue that the cases they attract from other districts tend to be more complex than average, so the standard rate of payment for cross boundary flows does not adequately compensate them. The report of the National Health Service Management Board² pointed out that cross boundary flows are already costed on a basis which allows for the specialty mix: RAWP specialty costs are national average costs estimated by regression analysis.³ The report argued that the main issue over costing these flows was whether cross boundary flow cases are also more complex and costly within specialties; it proposed that this issue should be pursued initially in the context of teaching

hospital costs, and that the data necessary for this would be available in two or three years' time.²

We argue here, however, that the financial problems of teaching hospitals, especially in London, are more likely to be due to their own district residents' relatively high use of inpatient services than to inadequate compensation for the cases they treat from outside their districts. The problem with cross boundary flows arises because of the conflict between two ways of paying for health care—that based on activity and that based on capitation—and their associated concepts of "fairness."

Financing hospitals by *activity* means that resources are allocated by cases treated; this is the traditional method of finance in the United States and many European countries. Financing on the basis of *capitation* means that a fixed sum is paid per person cared for throughout the year irrespective of treatment given; this is the principle behind health maintenance organisations. Although RAWP methods were devised on the principle of finance by capitation, by sharing revenue based on estimated relative need of populations, the cross boundary flow adjustment is based on activity.

Cross boundary flows are relatively small for regional health authorities in comparison with the numbers of residents treated within each region, so applying RAWP methods to these authorities is in practice finance by capitation. But applying RAWP sub-regionally involves finance by both capitation and activity, and problems arise where cross boundary flows are large, as they are for acute services in inner city health authorities. For example, the figures for 10 district health authorities in London show that most of their residents are admitted to hospitals of other districts and most of their cases come from other districts.

Importance of different methods of financing acute hospitals

On a capitation basis the Department of Health and Social Security's performance indicators for residents' use of acute inpatient services suggest that to be equitable with the rest of England London teaching authorities should have their spending on these services cut by more than a third.⁴ Performance indicators that compare actual spending on the same services by these authorities with what such activity would be expected to cost suggest, however, that if they were funded by activity typically cuts in spending of less than 5% would be needed.⁴ The activity calculation is based on estimated national average costs by specialty, with allowances for the higher costs of teaching and London; the capitation calculation makes no allowances for the higher costs associated with London and teaching; so this comparison overstates the difference between the two methods of calculation. Nevertheless, it suggests that there may be problems in applying subregional RAWP to a district where residents make much higher than average use of inpatient services and where cross boundary flows are large. We present a case study of the way that subregional RAWP (as used by South East Thames Regional Health Authority for 1983-4) affects one such district (West Lambeth Health Authority).

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A case study of subregional RAWP

In 1983 West Lambeth's residents used acute inpatient resources at a rate 60% above the national average.⁵ About 60% of the residents' admissions were to hospitals in other districts, while the district's main acute hospital (St Thomas's) received 70% of its inpatient cases from outside the district.

The subregional RAWP target for the district health authority's acute inpatients for 1983-4 included the following components:

- (a) a component for district residents (based, as in national RAWP, on national average use rates by age and sex, weighted by condition specific standardised mortality ratios);
- (b) cross boundary flows in general acute services at RAWP specialty costs;
- (c) all cases in multidistrict specialties (at estimated actual costs for an agreed volume);
- (d) the costs of teaching undergraduate medical students (by the service increment for teaching);
- (e) "London weighting," which partly covers the higher employment costs of London.

Figure 1 gives results found by JB (unpublished) and compares the RAWP target (for 1983-4) for the district's acute inpatient services with the closest corresponding actual expenditure on these services and their expected costs as estimated by the performance indicator: the last two are both for 1981-2.⁶ Actual inpatient expenditure was only 2% above the performance indicator (the sum of its cases at RAWP specialty costs, with allowances for teaching and London) but 20% over the RAWP target.

FIG 1—St Thomas's inpatient services 1981-2.

The results of figure 1 mean that if the hospital were financed by activity as in the performance indicator it would have minimal financial problems. To put it another way: suppose the district had no resident population, then all its cases would be inflows and credited to its target at RAWP specialty costs, and, as the RAWP target allowances for total costs of teaching and London are similar to those of the performance indicator, its spending would be close to its target.

The crucial point is that the RAWP target cannot be lower than the performance indicator because of inadequate compensation in the target for treating residents of other districts: these gain credit either at RAWP specialty costs in general acute services or at estimated actual costs in multidistrict specialties. Thus most of the difference between the target and the performance indicator must be because the target implicitly allows the district less than RAWP specialty costs for treating its own residents (except in multidistrict specialties, for which actual costs are paid). This is because the

target is based on the national average rate of use of services but district residents use services at a higher rate.

The district can do little about its residents' use of services as most go outside the district for treatment. It is reasonable therefore to inquire what lower rate of RAWP specialty costs is implied by the hospital's target allowance in general acute services (excluding multidistrict specialties) for treating district residents. To estimate that allowance we have further analysed both the target and the performance indicator. The costs of multidistrict specialties and the allowances for London and teaching have been excluded from each at the relevant costs. These estimates are given in figure 2: column 1 gives the target; column 2 the target presented in a different form; and column 3 the performance indicator.

FIG 2—Costs and target allowances for general acute inpatients.

Column 1 shows the conventional presentation of the target (£13 million): the sum of allowances for the residential component (£11 million) and the cost of the net flow of cross boundary flows (£2 million). This net credit is the cost of admitting residents of other districts to West Lambeth hospitals minus the cost of admitting West Lambeth residents to hospitals in other districts; the costs are calculated as the sum across all specialties at RAWP specialty costs. (Regions sometimes use other methods of accounting for cross boundary flows based on estimates of catchment populations; these alternatives are discussed in the final paper in this series.⁷)

In the case of West Lambeth the net credit in the target is the difference between a large inflow (£10 million) and a large outflow (£8 million). Where cross boundary flows are small the convention of representing the target with the residential component as the core and the cross boundary flow figure as a minor addition is reasonable. But when cross boundary flows are as large as they are in West Lambeth, column 2's representation illustrates more clearly the interaction of the adjustment for cross boundary flows and the residential component of the target. In column 2 the core of the district's target is taken to be the credit it gets for the majority of its cases—inflows. To this core is added the residual sum available in the target for treating residents of the district in the district's hospitals—the residential component less the deduction for outflows of district residents.

Representing the target as in column 2 enables target allowances for general acute inpatients to be compared with the RAWP specialty costs of treating inflows and district residents of the performance indicator given in column 3. This has been split into two parts to show the costs of treating West Lambeth residents (£6 million) and inflows (£10 million). Comparing columns 2 and 3 shows that the target allows the district about half RAWP specialty costs for the treatment of its own residents. Thus a district resident treated within the district provides only half the credit in the target

that the same case would carry to another district when treated there.

Given the above analysis we can explain how West Lambeth residents' high use of services results in the district being allowed less than RAWP specialty costs for treating its own residents in its own hospital. The residents' RAWP capitation allowance (£11 million) is less than the total cost of residents' services (£14 million), which is the sum of costs of services at hospitals outside the district (£8 million) and within the district (£6 million). The excess use of services by district residents over their capitation component of the target (of £3 million) results in the district having this deducted from the costs of treating its own residents in its own hospitals. If residents used services at national average rates there would be no difference between the target allowance for residents and inflows.

It might appear that as West Lambeth residents use services mostly in other districts there is little the authority can do to bring their use down to the national average rate; so to achieve its target it must provide services at lower than RAWP specialty costs. But closer examination of subregional RAWP shows that there are other means of closing the gap between target and spending which capitalise on authorities' lack of control over outflows; such action is, however, opposite to that commonly taken by authorities in the position of West Lambeth.

Financial incentives for general acute inpatient services

A district whose residents make high use of general acute inpatient services, and whose spending is therefore well over its target, typically responds by reducing inpatient admissions from other districts and giving its residents priority. Given the basis on which targets are calculated, such action results in the district's target losing credit for the cases no longer admitted, which in turn will necessitate further reductions in spending.⁸

The net flow method of subregional RAWP (as described above) finances general acute inpatient services in different ways depending on whether the person treated lives within or outside the district. Residents of other districts are financed by activity: the more cases admitted the greater the credit in its target. Furthermore, because data have until this year been routinely collected only on inpatients, it is only inpatient admissions that have normally counted in targets; the report² by the National Health Service Management Board recommends that day cases be recognised in the national RAWP formula when these data begin to be used. The treatment of district residents is financed by both capitation (the residential component) and activity (by deductions made for residents treated at other hospitals).

For a district in West Lambeth's position subregional RAWP generates peculiar financial incentives, particularly when credit is given for only inpatient cross boundary flows. The district may be seen as an organisation trading at a massive loss where the terms of trade are set by subregional RAWP. For clinicians to close the gap between spending and target they need to follow the terms of trade and discriminate between district residents and others. Thus the district's clinicians need to ask each prospective patient "Do you live in this district?" If the answer to this question is no then this person should be admitted as an inpatient and not managed as a day patient or outpatient (because credit is gained in the target only for inpatients). If the answer is yes then the clinician should do everything possible to prevent treatment as an inpatient. But he must not refuse treatment because of the risk of this person being admitted as an inpatient in a hospital in another district and becoming a deduction from his district's target.

The objective of subregional RAWP is to make district populations' use of services more equitable. Yet the financial incentives, as outlined above, are for districts to increase inpatient admissions

of patients from other districts. Yet again, if clinicians were to respond to these incentives they could increase their own districts' targets only at the expense of those of their neighbouring districts, which would thus be left with even fewer resources for treating their own residents at their hospitals. This shows how absurd it is to use subregional RAWP as a means of devolving to districts responsibility for bringing their residents' use of services to national average levels, where there are massive cross boundary flows and when districts have no control over outflows.

Conclusions

RAWP methods aim to satisfy two criteria of fairness. One is that districts should be fairly reimbursed for cases treated from other districts. We have shown that the problem of accounting for a case mix of these patients is unlikely to be the main reason for districts' financial difficulties but more likely to be due to their own residents' high use of services. This relates to the second criterion of fairness—that money allocated to health authorities should be done fairly on the basis of population (capitation).

We have shown that by aiming to satisfy both criteria of fairness, subregional RAWP fails on a third and most important criterion: that of not generating appropriate financial incentives in overtargued districts. If such absurd practices as admitting patients from other districts as often as possible became widespread they would create the further absurdity of each district playing "beggar my neighbour" by leaving them no resources to treat their own residents in their own hospital.

The purpose of this analysis is not, of course, to advocate the absurd incentives that we have identified but to show the need for alternatives to subregional RAWP and identify problems that these have to solve. We therefore welcome the observation in the National Health Service Management Board report,² that a subregional RAWP formula is not an adequate guide for subregional allocations, and the emphasis on basing the pace of change on planning, rather than mechanistic use of a formula.

A fashionable alternative to subregional RAWP is, however, not planning but the market based approach of cross charging by contracts between districts. This we see as confronting rather than resolving the issues we have identified here, and it is discussed in the next paper in this series.⁹ This is followed by a paper¹⁰ exploring the implications for teaching districts that their financial problems are likely to be primarily due to the high use of services by their residents.

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