

**FACILITATOR'S NOTES ON:  
"Resource allocation to regions and districts in the Eastern Cape"**

**1. Objectives of case study:**

The main objective of this case study is to allow participants to grapple with the difficult and "politically charged" process of making resource allocation decisions. It presents participants with actual data highlighting the extent of existing resource allocation disparities in many low- and middle-income countries and asks them to decide on how best to promote equity. This case study attempts to:

- Demonstrate the process of resource allocation decision making;
- Develop a better understanding of equity in the geographic distribution of health care resources;
- Identify the indicators of relative need for health services that could be included in a resource allocation formula;
- Highlight the importance of identifying a realistic and appropriate time-frame for resource redistribution;
- Consider complementary actions needed to translate budgetary shifts into real redistribution of resources and health services on the ground.

**2. Key issues to cover before using case study:**

It is useful to provide a brief introduction to resource allocation and to the concept of equity, particularly in relation to geographic resource distribution. It is also helpful to provide a brief overview of needs-based resource allocation formulae. Some suggestions on issues that could be covered are contained in the lecture notes in Appendix A. However, one should not provide too much detail on different indicators of need (just present a few to get the concept across), as this is a key part of the discussion in the case study.

**3. Overview of case study:**

The case study takes approximately 2-2.5 hours for group work and plenary discussions. Additional time is required if participants have not had an opportunity to read the case study document prior to the session. Groups should consist of 4-5 people.

There are two phases to the case study. It is not necessary to have a plenary discussion after Phase 1, merely to point out that participants should discuss Phase 1 and reach consensus before moving on to Phase 2. Facilitators also need to clarify that the group should not only try to reach agreement on an explicit 'answer' for each question, but should also present reasons why a particular option was preferred. The "realism" of the case study is enhanced if the facilitator suggests that individuals within each group adopt different roles – e.g. provincial level decision makers, Director of Region A and Director of Region E.

A range of plenary report back mechanisms can be used. It may be helpful to ask one group to report back on their answer to the first question and then ask other groups if they reached the same decision or a different one and why. One can then have overall discussion of this question and the issues that it raises in relation to geographic resource allocation. The same approach can be adopted for each of the other

questions, rotating the group who provides the first input. The types of issues that may come up in discussion are as follows:

Phase 1:

- *Which of the alternative formulae would be most appropriate for guiding the resource allocation process in the Eastern Cape?*

There is no “correct” answer to this question. The most important aspect of this question is for participants to experience the process of trying to reach stakeholder agreement, or to reach a compromise, given the different perspectives of various stakeholders. It is useful to discuss this process, to highlight the fact that resource allocation is a political process. Given that the addition of various indicators of needs heightens the disparities in existing resources, areas that are relatively well-resourced are likely to argue that data on many of the indicators is unreliable and that it would be best to go for a simple ‘per capita’ formula (i.e. only use population data). In contrast, the worst-resourced areas are likely to argue for the inclusion of a wide range of indicators of need, as this will maximise the additional resources allocated to them. Some may argue that it is best to have a simple ‘per capita’ formula so that the resource re-allocation process does not seem overwhelming (because of the extent of the existing inequities). While there may be value in this approach, well-resourced areas may resist adding other indicators of need at a later stage. It would thus be important to ensure agreement at the outset that a wider range of need indicators will be included in the formula in the longer-term, and to initiate a process of collecting reliable data for these indicators at an early stage.

- *Should differences in local government own revenue contributions to district-level health services be taken into account when considering the allocation of the provincial health budget?*

Once again, there is no “correct” answer to this question. Arguments by the various stakeholders are likely to be similar to those presented above; well-resourced areas would prefer that this revenue not be taken into account, while poorly-resourced areas will argue that it should be taken into account. The key issue surrounding this question is that different areas will have vastly different abilities to generate local revenue (whether this is through local government rates and taxes, user fees, community pre-payment schemes or other mechanisms). If locally generated revenue is ignored, there may still be significant resource allocation differences between districts, despite an equitable distribution of provincial level resources. However, if districts are not allowed to obtain any benefit from locally generated revenue (i.e. if this revenue is completely off-set by reduced budget allocations from the provincial level), there will be no incentive to generate revenue locally. Local governments may cut their allocations to health services, and facilities may refuse to implement and collect user fees or other local cost-sharing mechanisms. So, it is important to balance equity objectives with incentives necessary to generate local revenue.

- *Are there other factors which should be taken into account when determining equity target allocations?*

Participants may come up with other potential indicators of relative need (e.g. differential costs of service delivery in low population density areas, accounting for cross-boundary flows, etc.). Note that the formula is for allocating *recurrent* budgets; capital budgets would require a different approach (such as evaluating the distribution of existing facilities). Indicators of supply and *demand* (as opposed to need) should be avoided in a needs-based formula for recurrent budget allocation (see Appendix A). This question thus provides an opportunity to reinforce messages about the potential composition of a needs-based formula.

- *Given that there is unlikely to be a real increase in the global provincial health budget in the foreseeable future, and given the Minister's dual concerns (i.e. to address backlogs rapidly but not to 'rob Peter to pay Paul'), what time-frame for achieving equity targets would be desirable and realistic?*

Again, there is no "correct" answer. It is important that the group is able to reach a compromise between the different stakeholders and has recognised the need to achieve a balance between promoting equity improvements as rapidly as possible while ensuring that existing services do not disintegrate. It is important to adopt a pace of change that matches the capacity of regions and districts to absorb budget increases and decreases. It is particularly important to explore the motivations for different groups' consensus positions – did they adopt a short-time frame for political reasons (e.g. want to achieve equity before the next elections) or did they adopt a long time frame because Region A's director was very persuasive in the group?

#### Phase 2:

- *What factors contributed to the inability of Region E to submit a detailed plan and budget, and are these factors likely to impact on the ability of this region to absorb budgetary increases?*

The main issue that comes up here is that of management capacity. It is worthwhile exploring the concept of capacity a bit, stressing that it is not only about having enough people with the right skills, but also having adequate information systems to get timely information for planning and budgeting, knowing how government systems function so that one is able to translate an increased budget into improved service delivery (e.g. knowledge of government staff appointment procedures and tendering systems for construction of new facilities and purchase of equipment).

- *Given the verbal (and in some cases written) submissions of the regional Directors, should the RATT reconsider their time-frame for, and hence the pace of, resource redistribution?*

This question usually promotes discussion about how the pace of change needs to be adapted (usually slowed) when the reality of management and absorptive capacity constraints become evident. It also provides a useful basis for emphasising that needs-based formulae are not a "decision-making" machine – one needs to take other factors, particularly capacity issues, into account when reaching a final decision on allocations.

- *As the major reason that the budgetary cuts in relatively over-resourced districts and regions are so large is that the provincial budget is not expected to increase in real terms, are there additional sources of finance for provincial health services to ease the burden of redistribution?*

This question highlights the constraints of being heavily dependent on inter-governmental transfers from the central level. It is considerably easier to redistribute resources *within* a province when allocations to that province from central government level are increasing in real terms. Thus, the pace of change in resource allocation is heavily dependent on whether the overall "cake" is increasing, staying constant or decreasing in real terms. Participants frequently raise the suggestion that user fees could be used to increase overall resource availability within the province. However, it should be noted that relatively "richer" districts and regions are likely to be able to raise user fee revenue more easily than relatively "poorer" districts and regions, and that fee revenue should in some way

be taken into account when determining budgetary allocations (see information on this issue in the second question in Phase 1).

- *Are there additional steps that the RATT should take to facilitate the implementation of the resource redistribution process, to ensure that financial and other resources are actually reallocated on a geographic basis without significantly disrupting existing health services (i.e. to assist regions and districts in overcoming absorptive capacity constraints)?*

The key issue here is that if the provincial managers are seriously committed to achieving equity in resource allocation, they will need to give preferential support in developing management capacity in Regions E and D. Merely changing budget allocations is not enough; additional steps need to be taken to develop capacity within currently under-resourced areas to efficiently use increased financial resources.

## **APPENDIX A: GEOGRAPHIC RESOURCE ALLOCATION MECHANISMS**

Lecture notes prepared by: Di McIntyre, Health Economics Unit, University of Cape Town

### **INTRODUCTION**

*Resource allocation* refers to the process of distributing health care resources, particularly financial resources, from a central (or regional) level to more peripheral levels. The *budgeting process* determines how these resources will be used at the peripheral level. Within the context of the planning process, resource allocation and budgeting are two sides of the same coin and are inextricably linked.

International experience has shown that the allocation of health care resources is frequently determined in an arbitrary manner and reflects historical inertia and/or the influence of powerful lobbies. Prevailing supply and demand patterns are the most common determinants of resource allocation decisions, where resources are allocated on the basis of the previous year's expenditure with an increase for inflation and sometimes adjusted for previous over- or under-spending.

There is a reliance on costly capital-intensive facilities for the provision of many health care services and once a pattern of supply of these facilities has been established, the future allocation of financial resources tends to perpetuate the historical position. This reliance on historical financing patterns restricts the ability of health care services to respond to demographic and other changes. The overriding concern is that sections of the population in some areas are prejudiced in their access to essential health care, merely by virtue of their place of residence.

Internationally, there have been a number of initiatives to address geographic health care resource allocation disparities. The goal of these initiatives is to find a mechanism for allocating resources from the central (or regional) level to the periphery which takes account of the *health needs* of the population (and is sufficiently sensitive to changes in these needs over time), and promotes *equity* in access to health services. An increasing number of countries are basing their geographic resource allocation decisions on *formulae* which include measures of *relative need* for health care within particular regions.

### **EQUITY**

There is considerable debate in the literature about the definition of health sector equity. However, there is consensus that equity implies that health care resources should be distributed in a *fair* or *just* way within a society.

Equity should be distinguished from equality. Equity is "a system of justice based on fairness" while equality is "the condition of being equal" (Chambers Dictionary). This distinction is important, as being unequal may be judged to be fair or equitable. In its strictest sense equality implies that all people should have the same health status, whereas equity implies that all people are treated fairly in relation to benefiting from health services.

Within the context of the geographic allocation of resources, equal access to health care services for equal *need*, has become a popular target for which to aim. However, 'access' is more difficult to define and hence measure than equal health care inputs for equal need (or equal 'capacity to benefit' from health services). Geographic allocation

mechanisms thus usually have the goal of achieving equity in the distribution of *resources* per capita adjusted for health care needs.

### **NEEDS-BASED RESOURCE ALLOCATION FORMULAE**

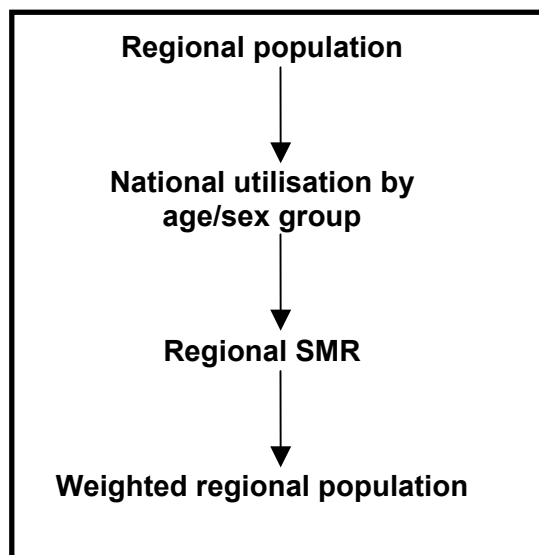
As indicated previously, a growing number of countries are using formulae to guide the resource allocation process. The best known of these formulae is that developed in England, known as the RAWP (Resource Allocation Working Party) formula.

The Resource Allocation Working Party identified certain indicators or proxy measures of the need for health services. The size of the population in each region was determined to be the primary indicator of need. Regional populations were then weighted by *national* utilisation of the respective services by each age/sex group. This was a means of accounting for the age and gender composition of each geographic region's population, thus also weighting for potential regional variations in patient mixes and associated variations in the need for resources rather than reflecting the provision of, or demand for, health services within each region.

A number of possible proxy measures for inter-regional morbidity differences were considered. Mortality data in the form of standardised mortality ratios (SMRs) were selected, primarily for reasons of data availability. In a later revision of the RAWP formula, the regional population was also weighted by a measure of social deprivation. This was in response to criticisms that SMRs do not adequately account for regional variations in the need for health services arising from differences in socio-economic conditions.

The major components of the RAWP formula are summarised in Figure 1.

**Figure 1: Primary components of RAWP's measure of need for health services**



In addition to the measures of need, RAWP accounted for cross-boundary movements to ensure that allocations were based on the populations *served* by a particular service and not simply those *residing* within a specified administrative boundary. Another refinement was a Service Increment For Teaching (SIFT) to compensate regions with academic hospitals for the costs of training medical and dental students.

Revenue allocation targets were calculated by distributing the total recurrent budget available for the provision of health services in England on a proportional basis according to each geographic region's share of the weighted population. Resources were gradually shifted away from those regions which were relatively 'over-resourced' compared to their need for health services, to those regions which were relatively 'under-resourced'.

Since 1976, the objectives set by RAWP have, for the most part, been met. The difference in expenditure per capita (of weighted population) between the poorest and wealthiest regions was approximately 30 percent when the RAWP report was published. This gap has now virtually been eliminated.

Due to the success of the RAWP formula in guiding the redistribution of health care resources in England, the basic principles and structure of the formula have been applied in many other countries, including both developed and developing countries. Certain factors which were not taken into account in the RAWP formula have been incorporated in the formulae developed in other countries. Firstly, the RAWP team argued that the private sector could be ignored, as it was relatively insignificant in England in the 1970s and 1980s. However, in countries with a substantial private sector, it is necessary to base resource allocation decisions on the size of the regional population *dependent on public sector services*.

The second issue is that of accounting for differential population density between geographic areas. Once again, this was not a significant problem within England. However, in countries where certain regions have extremely low population densities, it is necessary to compensate these areas for the relatively higher cost of providing accessible services.

Another factor that is of importance in many low- and middle-income country contexts is the need to take migration patterns into account. This is particularly important in countries which are experiencing rapid urbanisation. As urban areas tend to be better resourced than rural areas, it is likely that resources would be allocated away from urban areas. However, in future years, additional resources will be required in these areas as the population grows. Thus, to prevent services being down-scaled, only to be expanded some years later, a longer population size perspective should be adopted in the needs-based formula.

There are frequently problems (particularly in developing countries) in obtaining accurate data for all the possible proxy measures of health service need. When there is substantial inequity in the geographic distribution of resources, the emphasis should be on attempting to achieve equity in expenditure per *capita*. It is only necessary to refine the formula to include other measures of need for health care when actual resource allocations are considerably nearer the target amounts.

In summary, the following is a useful approach to adopt when using a needs-based formula for allocating health care resources between geographic areas:

1. Estimate the relative need for health services within each geographic area, based on the following indicators:
  - The population size (this is the single most important indicator of need) - this could be adjusted to reflect cross boundary flows (i.e. the population who use services in that *area*) and adjusted for private sector coverage (i.e. the population who use *public* sector services);
  - The demographic composition of the population (i.e. adjust for age and gender as it affects the relative need for health services);

- The morbidity or mortality profile; and
  - Socio-economic status of the population.
2. Do not use indicators of supply, demand and/or utilisation as a proxy for need for health services. Reliance on such indicators will tend to entrench historical inequities. For example, if there is a good supply of health services in a particular area (as a result of the historical pattern of service development), utilisation in this area will tend to be higher than in other areas with a lower supply of health facilities. If utilisation were used as a proxy for 'need', more resources would be allocated to the area which already has a relatively good supply of services.
  3. Estimate resource targets by allocating total available financial health care resources between areas in proportion to their share of the weighted population. These targets should be adjusted for *extraordinary* resource requirements (e.g. providing supra-regional services, training of health workers, and very low population densities).
  4. In determining resource targets, other sources of health care finance within each area should be taken into account. For example, the allocation of resources to districts should adjust for differential local government funding and user fee revenue (if fee revenue is retained) within districts.
  5. *Gradually* redistribute resources to bring the actual allocations for each area nearer their target amount. The *pace* of redistribution should be based on a realistic assessment of the capacity of health services to absorb resource cuts or increases.
  6. Monitor changes in population distribution between geographic areas, and estimate what the proportional distribution of resources should be in the longer term (e.g. in ten years time) based on population growth projections.
  7. Recalculate resource targets on a regular basis, refining the formula to include more indicators of need as more accurate data become available.

## **INTEGRATION OF RESOURCE ALLOCATION, BUDGETING AND PLANNING**

It is important that the relationship between resource allocation and budgeting, both of which are components of health sector planning, is clarified. In particular, the *responsibilities* of different levels of health care administration in these processes must be identified.

The Primary Health Care (PHC) approach suggests that detailed health service planning, and decisions about how resources are to be used, should be decentralised as far as possible. This will ensure that locally identified needs can be met optimally. The local/district health authority should thus be responsible for planning and budgeting for health services in its area.

If this planning and budgeting is to occur within the context of an *equity* framework, a strong central role is essential to ensure that resources are allocated according to need. Thus, the central (i.e. national or provincial) health authority should be responsible for resource allocation decision making, taking account of locally developed plans and budgets and with the explicit objective of improving intra-regional equity.

Focusing on the intra-provincial resource allocation process, there should be a gradual process of redistributing health care resources between districts, based on the difference between current expenditure levels and the resource allocation targets. This redistribution process should also be guided by the plans and budgets developed at district level, in that these proposals will inform the provincial health department of a particular district's capacity to absorb increased (or cope with decreased) allocations.

The resource allocation decision-making process, and the linkage with planning and budgeting, is summarised in Figure 2.

**Figure 2: Resource allocation decision-making process**

