

## Class 6. Resource allocation and budgeting

### *Objectives*

At the end of this class learners will know

- ◆ what is resource allocation
- ◆ what is budgeting
- ◆ what are the main approaches used in resource allocation
- ◆ what are the major types of budgeting
- ◆ what are the main approaches to budgeting and resource allocation
- ◆ how to deal with some financial management issues relevant to the planners

One of the highly important and sometimes strangely neglected steps of the planning process is *resource allocation and budgeting*.

*Resource allocation and budgeting* is the process whereby the objectives of a service can be translated into action through the medium of financial allocations and the authority to spend. Thus, the results of the earlier decisions (objectives) translate into actions/a series of programs, each with its individual budget and resources. Taking into account the special importance of resource allocation and budgeting in the planning process, some authors emphasize that financial considerations are at the heart of the planning process.

Allocation of resources and budgeting are two sides of the same coin.

***Allocation of resources is the distribution of resources (in particular finances), from the center to the peripheral levels. It is the true indicator of where priorities lie.***

***Budgeting is a detailed determination of how funds are to be used; it is a schedule of funding.***

### 1. Resource allocation

Resource allocation is the bottom line indicator of broad priority setting; a powerful tool for setting priorities when health sector reform is high on the agenda. For example, to correct imbalance/inequity problems (too many hospitals, etc.), resource allocation can be used. Often due to political realities, allocation patterns are changed not through the reallocation of existing resources, but via disproportionate allocation of new resources.

Two main approaches are used in resource allocation:

- (1) Epidemiologic (standard, disease-based) approach considers diseases as the main problem, prioritizes them for actions, develops programs against diseases, prepares budgets, counts resources; determines scope of a program, and uses resource allocation to fund disease-defined programs.
- (2) Primary Health Care (PHC) approach is based on understanding that the real problem is not a disease, but rather social deprivation. Resource allocation is driven by considerations of equity, based on need. The principles of PHC suggest that decisions on how resources are used should be decentralized as much as possible.

What is the optimal way to allocate resources within health care system? Resource allocation is a powerful tool at the center for achieving health sector reforms, and for guiding local programming. Broad resource allocation represents too much power for the center to relinquish. How can responsibilities related to resource allocation and budgeting be divided between center (e.g. MOH) and local health departments to achieve the set objectives and targets? One solution to this dilemma is to give districts and regions the responsibility for detailed budgeting within constraints with the center-to-periphery allocative decisions being based on population characteristics, such as age, sex, social class, mortality and morbidity. There is a need for a dialogue between the MOH and local health departments and a compromise established.

Based on the information collected in the situational analysis at the local levels, the MOH eventually sets broad resource allocation, national policies and guidelines. The local health departments, which are best suited to work with communities and other sectors at that level, develop the programs and the budgets. Further information collection and analysis works as a basis for reforming resource allocation.

## 2. Forms of budgeting

The main forms of budgeting are a) institutional budgeting, b) line-item or functional budgeting, c) program budgeting, d) performance budgeting.

A. *Institutional budgeting*. In this form the budget is set according to where expense is incurred (hospital A, outpatient clinic, rural health post, etc). This type of budgeting is administratively easy to organize; however the way budgets are structured within the institution becomes a separate issue.

The typical MOH budget structure is an example of institutional budgeting, and looks like the following Table 1.

**Table 1. Illustrative Institutional Budget (A. Green's "An introduction to health planning in developing countries").**

	Hospital A	Hospital B	Rural clinic	Health inspectorate	HQ	Total
Salaries	150	300	80	30	40	<b>600</b>
Transport	20	30	20	10	20	<b>100</b>
Medical supplies	50	110	30	10	0	<b>200</b>
Equipment	15	30	5	5	5	<b>60</b>
Maintenance	8	15	5	2	0	<b>30</b>
Other	2	3	0	0	5	<b>10</b>
<b>Total</b>	<b>245</b>	<b>488</b>	<b>140</b>	<b>57</b>	<b>70</b>	<b>1000</b>

B. *Line-item budgeting* is the type of budgeting that organizes planned cost along the lines of input categories such as personnel requirements, expenditures on supplies, types of equipment needed, etc. Thus, the budget is organized according to the nature of expense (personnel, supplies, maintenance, etc). See, for example the Table 2. Certainly, in real life it includes more detailed subcategories than our example.

**Table 2. Illustrative line-item budget (William A. Reinke "Health planning for effective management")**

<b>Line Item</b>	<b>Amount</b>
Professional staff	\$ 300,000
Non- professional staff	\$ 240,000
Total personnel	\$ 540,000
Expendables	\$150,000
Fixed capital and equipment	\$ 60,000
<b>Total</b>	<b>\$ 750,000</b>

C. *Program budgeting*. This form of budgeting organizes inputs programmatically, according to the purpose of the expense – it allocates line-items costs among programs. Thus, it decentralizes budgets on the basis of activity rather than resources. The rationale behind this method is that any health service to achieve program objectives in terms of health status *change*. Therefore plans are set in programs terms, and the resources (staff, supplies, transport, etc) are just means to achieve the objectives. This type of budgeting allows for post-implementation economic analysis (output/input) since it relates resources (input) to program objectives (output). But it is necessary to bear in mind that this method is analytically useful but managerially inconvenient.

To give you an idea of how a program budget may look, let us suppose that Table 3 illustrates the budget of a pediatric unit engaged in two basic programs: (1) well-child care and (2) treatment of sick children. By allocating line-item costs among those two programs we will arrive at a program budget (Table 3).

**Table 3. Illustrative program budget**

<b>Item</b>	<b>Illness-child care</b>	<b>Well-child care</b>
Professional staff	\$ 225,000	\$ 75,000
Non- professional staff	\$ 144,000	\$ 96,000
Total personnel	\$ 369,000	\$ 171,000
Expendables	\$105,000	\$ 45,000
Fixed capital and equipment	\$ 42,000	\$ 18,000
<b>Total</b>	<b>\$ 516,000</b>	<b>\$ 234,000</b>

#### D. *Performance budget*

Despite the programmatic *orientation* of program budgets, they still focus on resource inputs. Relating them to intended outputs will convert the presentation to a performance budget. So, it is one step beyond a program budget. A performance budget contains information regarding inputs (on a program basis), estimated outputs, and budgeted cost per unit of output.

To be illustrative let's go back to Table 3, and suppose that the illness-child-care budget presented there is based upon an expectation of 90,000 patient visits, and 75,000 well-child visits. Thus, the budgeted cost per unit of service is  $516,000 : 90,000 = \$5,73$  for illness care, and

234,000 : 75,000= \$3,12 for well-child care. Additional information concerning output and budgeted cost per unit of output transforms the program budget into a performance budget.

Experts in the field have found that performance budgeting is the most useful in the process of planning, implementation, monitoring and evaluation.

Based on the difference between items of expenditure as well as timing of program expenditures it is helpful to separate *capital and recurrent budgets, developmental and routine budgets*.

a) *Capital versus recurrent budgets*

*Capital budget* (“one-off cost” or “one-time expenditure” or “development cost”) usually includes one-off cost for onetime expenditures for building construction, purchasing of equipment, staff training cost.

It is necessary to say that while some items of expenditure can be easily considered as one-off (such as building construction), other items such as training, or furniture are less obvious. They are reoccurring, but at longer intervals than, for example, salary, or drugs. It becomes obvious also that even buildings eventually require replacement.

The items requiring replacement at intervals, usually less than a year, are considered as recurrent. Also there are small items of equipment (for example, stethoscopes) which may well last for several years but should be purchased from a *recurrent equipment budget* partially because of the value of the item and partially because throughout the year some of the items may need to be replaced.

At the same time it will be correct to say that there are no universal rules for the categorization between recurrent and capital budgets; different budgeting and accounting systems will have their own rules which need to be followed.

The need to make a distinction between capital and recurrent budgets is due to several reasons. One reason is that capital costs are an important budgetary concern at the time they are incurred, but amortized over several years, and thus become a relatively small items of annual cost. Inclusion of such one-off payments within budgets that deal with ongoing expenditure would distort projections of long term funding requirements, and therefore it is more correct to keep them separate. Also, one-off expenditures providing benefits in more than one year may be funded in a different way (such as through loans or aid) than those providing immediate benefits to the society.

Despite differences, it is important to remember that both of the budgets (capital as well as recurrent budgets) relate to planning, since both of them are the vehicles for altering directions, and making changes in the future (which is the role of planning). Capital and recurrent budgets should be fully and equally integrated into the overall planning process.

b) *Development versus routine budgets*

*Development budgets* are usually formulated in support of medium-term (usually five-year) plans, whereas *routine budgets* are prepared in connection with annual work plans. International donor agencies typically support capital expenditures and items included in development budgets.

c) *Cash-limited versus volume budgeting*

Some budgetary systems are based on agreed volume indicators i.e. the number of personnel and *supplementary budgets* for unexpected price-increase i.e. wage-increases during the financial year that are automatically approved. At the same time financial constraints have led to the adoption of *cash-limited budgets*, when a fixed budget is agreed upon and it is expected that it will be kept irrespective of any changes during the year. In such situations unanticipated changes in either prices i.e. because of inflation or in the level of activity i.e. because of an epidemic are expected to be included in compensatory reduction elsewhere in the level of activity and expenditure. It is true that in exceptional situations, supplementary budgets may be provided. Adoption of cash-limited budgets forces managers to be far more conscious of the financial implications of alterations in services.

### **3. Financial management and accounting (some financial management issues relevant to the planners)**

Once budgets are set, monitoring systems are required to provide managers with information throughout the financial year about the current and the likely end-of-year situation. Although such monitoring is primarily a management function, it has important implications for planning i.e. it reveals the need for actions deviating from a set plan then it is important that planners are aware of it. Systems of monitoring are a key means to detect deviation from the budget early enough, so that remedial actions can be taken not only to ensure that the budget is not exceeded, but to make sure that such action is taken in a measured way, consistent with the objectives of service plans. Late recognition can extremely limit the remedial options, and may lead to unplanned and undesirable shifts from the service objectives.

The variations from the set budget (over-or under-expenditure), which may be detected by the financial monitoring, are likely to be a result of

- ◆ poor initial estimation
- ◆ initial misallocation between budget items
- ◆ unplanned change in volume of activity (for example as a result of an epidemic)
- ◆ unexpected change in prices
- ◆ change in efficiency levels

There are a number of financial management techniques which can be used by a cash-limited manager in case of overexpenditure. The selection of a technique will depend on the cause of the deviation and the impact of the action on the plan objectives.

Corrective financial actions can be summarized as

- ◆ virement between different items
- ◆ a request for supplementary funds
- ◆ improvements in efficiency
- ◆ reduction in activity levels
- ◆ reduction in the quality of service

Let's briefly go through each of them.

*Virement between different items* is the process of transferring funds from one budget line to another (financial control systems usually have restrictions on the ability of a budget manager to make such shifts between *certain* items).

*A request for supplementary funds* may be seen as reasonable under some certain circumstances, i.e., unanticipated increases in the levels of activity (for example in case of an epidemic), and may be possible in form of a supplementary vote of funds from the higher level in the health service or from the central government.

*Improvements in efficiency* (provision of service at the same level and of the same quality for less resources) is the most attractive option for dealing with an overexpenditure. In general, efficiency may be improved in three ways: by using a completely different approach; by sharing some resources (for example, transport) and by negotiating a reduction in the price of inputs (for example, drugs). These methods take time, and thus may not provide a solution for short-term overexpenditure problems. Overexpendituring needs to be well documented to avoid worsening the situation.

*A reduction in activity levels* may lead to budget savings, but may also lower levels of efficiency. There may also be resistance to reduction in activity level from health professionals and the community. However, activity level reduction may in the end be preferable to other options, and may also be the only option available.

*A reduction in the quality of service* is understandably an unpopular step, however preferable to a reduction in service levels (for example, the quality of provided food may be changed). In any case, in carrying out this strategy it is extremely important to make sure that the quality of care does not drop to the point where service efficacy is lowered, jeopardizing service objectives.

As you have seen from the discussion resource allocation and budgeting is one of the highly important steps of the planning process and an integral part of the effective planning.

The next class will be devoted to *programming* – translating the results of the priority-setting process and the option appraisals into a set of workable programs of activity that form the basis for a plan which includes the budget and staffing requirements.

## Questions

1. An epidemiological approach used in resource allocation, considers diseases as the main problem, prioritizes them for actions; devises programs against diseases; costs programs; counts resources; determines programs' scope, and uses resource allocation as a constraint to fund disease-defined programs.

True

False

Answer: True. See page 1.

2. Which type of budgeting organizes inputs programmatically, according to purpose of expense – it allocates line-items costs among programs.

Please choose the correct answer to fill in a gap.

- a) performance budgeting
- b) line-item or functional budgeting
- c) institutional budgeting
- d) program budgeting

Answer: d). See page 3.

3. The table below is an example of what type of budget

<b>Line Item</b>	<b>Amount</b>
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Fixed capital and equipment	\$ 60,000
<b>Total</b>	<b>\$ 750,000</b>

- a) performance budgeting
- b) line-item or functional budgeting
- c) institutional budgeting
- d) program budgeting

Answer: b). See page 3.

**4. The variations from the set budget are likely to be a result of**

- (a) poor initial estimation
- (b) initial misallocation between budget items
- (c) unplanned change in volume of activity (for example as a result of an epidemic)
- (d) unexpected change in prices
- (e) change in efficiency levels
- (f) all of above

Answer: f). See page 5.