

Tool: Basic budget calculations to identify common problems in the use of public resources¹

Purpose of the tool: Basic budget calculations are an entry to applied budget analysis for budget advocates. The calculations can be used to test hypotheses of wastage, under-spending and under-funding and for identifying allocations and execution (at a basic level) of public budgets.

How to use the tool: This tool should first be used by facilitators as an introduction to budget analysis before asking participants to analyse data related to UHC. It is suggested that a full session be dedicated to this content with participants, as suggested below.

Content of the tool: Basic budget calculations that are not too technical and can be applied to basic budget data include: shares, averages, inflation, growth and per unit

Share

- A share is a part of one number represented by another; usually expressed as a percentage.
- Do not confuse with ratio, which is a way of comparing two numbers, such as the ratio of teachers to students of 1:25.
- Calculation of shares helps to analyse the overall composition of a government or subnational budget, such as the share of a total budget health budget that is allocated to reproductive rights or the share of a government budgeting in one sector as compared with another.

Average

- Important for understanding trends, i.e. over time or regions:
 - How much will the government spend this year in comparison with how much it spent in the past few years?
 - On average, how much did other governments spend on health in the past few years?
- Useful in exceptional years, e.g.

¹ The information in this section is from training materials developed by the IBP, including the health and budgets workshop and the training workshop for budget advocates in Ghana. It is also based on adaptations by COMETA of these materials for training.

- The government spent 10% of the budget on health in 2011, 11% in 2012, 10% in 2013, 5% in 2014 and 11% in 2015.
- Although the trend changed abruptly in 2014 for an exceptional reason, you might want to know what the government spends on health on average.

Inflation

- In very simple terms, inflation is a general rise in the prices of goods and services in the economy over time.
- The value of money changes.
- Inflation erodes the earnings of families but also the buying power of governments.
- To determine the impact of inflation, which would show the “real” increase in government spending over specific periods, you must adjust for inflation.

The consumer price index is necessary to adjust for inflation. Budget documents show budget data that are not yet adjusted for inflation. Adjustment for inflation reveals the “real value for money” or what the resources can actually purchase. For example, sometimes when inflation is adjusted for, the budget is seen not have increased over time.

- Inflation changes the value of money over time.
- By adjusting for inflation, we equalize the budget values to one year, and we can compare changes in the budget over time.

For a simple introduction to inflation, see the following video produced by IBP: A citizen’s guide to understanding and using inflation for budget analysis: https://youtu.be/r_ikGjR5pzE?list=PLQ1WGH8_cXF_qAuKAyD3FdXI1sRI0v7Bm.

Growth

The tool for comparing budget changes over time is **percentage growth**. The calculation is particularly relevant for measuring progressiveness in the budget. It tells us whether a budget has increased or decreased in percentage terms over time.

Unit cost

- Calculating unit costs indicates whether spending is efficient and fair.
- It may be difficult to determine unit costs, as, in some instances, it is difficult to define the “delivery unit” or a particular programme or sub-programme that is responsible for the provision of an output or service, as a service or delivery unit may be the result of work by many programmes.
- Depending on the service or output on which you are gathering evidence, you will arrive at the best possible indication of unit cost with the information available.

- The results may have several possible explanations. For example, if the government is spending twice as much on some students or patients than on others, this may be because, for example:
 - It is wasteful.
 - The two groups are different, and one needs more.
 - The two groups are different, and one is more politically influential.

The same logic applies to calculation of per capita budget expenditure. The only difference will be that a population number is required, such as the per capita budget executed for the **public health care** programme in any given year.