

The terms “cost” and “price” are often used loosely and mean different things to different professions. It is important to be clear on which term is meant. The terms are often differentiated as:

- The **total cost** is the total amount needed across all eligible beneficiaries to provide access to a defined package of benefits in a particular delivery setting.
- The **price** is the amount incurred by contributors to the system and may be set according to other criteria, like equity and affordability.
- The price charged by providers to funders in the health system will be referred to as the **reimbursement rate** and it may be determined in a variety of ways, from fee-for-service to per visit or capitation (a fixed amount per person pre-paid, typically on a monthly basis).

For National Health Insurance (NHI) contributions, there is a need to determine a table of amounts or an income-related formula. The sequence usually starts with a defined package of benefits, works up from the bottom of the costing part of Figure 1 and then across to determine the price to be charged.

Benefit package: the package of minimum benefits will influence the choice of data and the design of the costing study. Alternative benefit packages may be considered when affordability is assessed in the final step. Healthcare financing is a rationing problem; the form of rationing expected in the package has a large influence on the study design and must be articulated at the outset.

Raw price: a suitable source of data is identified, extracted and tested for reasonability. As healthcare has a strong seasonal pattern, data must cover at least one complete calendar year (three years is ideal). Data gathered from multiple sources requires a lot of effort to ensure that definitions are identical and that the results can be validly combined. While total cost is a function of utilisation and unit price, it is often better to combine them and use the total amount per beneficiary per month.

Margins and adjustments: the raw data may be adjusted, depending on quality and applicability. This requires considerable knowledge and judgement to ensure the adjusted data is valid. A common adjustment is to estimate the “incurred but not reported” claims (IBNR). Removing “outliers” (very large claims) is not advisable as the nature of healthcare data is some very expensive extreme events. The larger the data set, the more predictable and stable are these large cases and results.

Demographic correction: the demographic structure of the data is likely to differ to the population to which it is being applied. The data will be adapted accordingly for the group to be costed. Costing work should always be done by at least age and gender as these are the primary risk factors in cost.

New benefit package correction: converting data of a voluntary benefit to one that becomes mandatory requires experience and judgment. Typically, usage is higher once a benefit is included in a minimum package but the extent of the change is difficult to forecast. Even applied limits, deductibles or co-payments alter provider and beneficiary behaviour from that observed in past data.

Inflation to period of use: data extracted is inflated from the period for which it is known to the period of use in the future. Inflation is usually calculated and estimated separately for different components of the benefits, like hospitals, medicines and visits. It is crucial to isolate any demographic changes of the risk pool from the price effects when calculating the historic inflation.

Adjustments: the price of negotiated healthcare and administration contracts are explicitly loaded. These contracts must be finalised before completing the costing to be sure of the amount to charge. Other adjustments may include expected investment earnings, margins for liquidity or solvency, and an assumption of the achievable level of efficiency. This last assumption is the most critical as the perception is that the public sector can use the same funds more efficiently than the private sector. Without hard evidence, it is unwise to anticipate any improvement in efficiency.

Spread total cost as a price to be charged using allowable rating factors: Under NHI, who will contribute and who will be exempt must be tightly defined by age, income, employment etc. It is critical to know how contributions will be calculated and the definition of income to be used. In price setting, socially-engineering the table can provide relief for vulnerable, usually lower-income, groups.

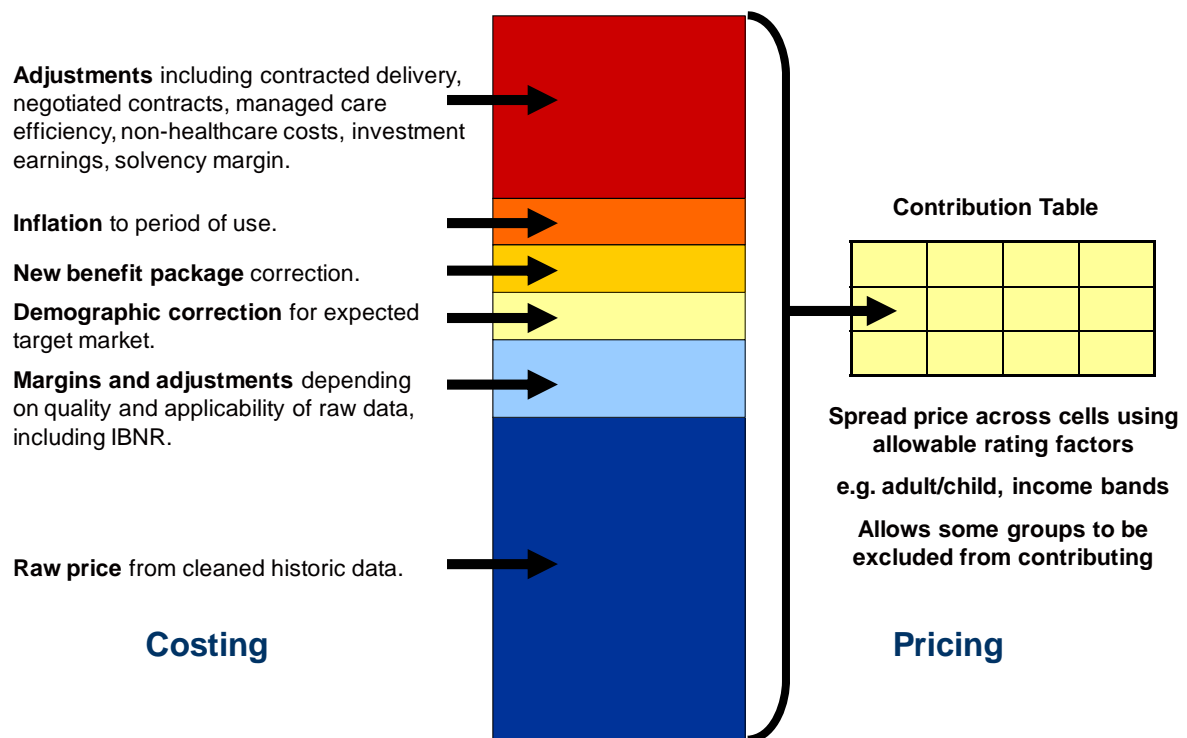


Figure 1: Generic Costing and Pricing of Healthcare

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Further resources on the IMSA NHI web-site

http://www.innovativemedicines.co.za/national_health_insurance.html

- The full policy brief, as well as the slides and tables used.

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