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## **Trace amounts? Assessing hospital costs in Zimbabwe**

Hospital costs are difficult to measure when there is limited or poor quality data. Current accounting methods may miss key aspects of inefficiency. Researchers from the London School of Hygiene and Tropical Medicine find that using 'tracer' illnesses is a more effective way to assess costs in Zimbabwe's hospitals.

Crude methods of hospital costing do not consider case mix or severity – both vital to understanding cost structures and differences between hospitals. They may miss unnecessary costs that stem from wasted staff time, over-prescription of drugs, needless diagnostic tests, inappropriate length of stay and other redundant activities. Using the tracer approach may resolve some of these problems. The ideal tracer would:

- reflect the activities of health professionals
- be well defined and easy to diagnose
- be common enough to provide sufficient numbers
- be sensitive to the quality and/or quantity of the services received by the patient
- have professional consensus on minimal standards for managing the condition.

The researchers compared costs at six provincial hospitals in Zimbabwe for three tracer conditions: pulmonary TB, simple and severe malaria. They recruited a total of 207 malaria cases (58 per cent severe) and 158 TB cases. Nearly half of all cases are self-referred, reflecting referral system problems. The study also showed that:

The average costs of inpatient care for malaria (US\$ 28) and TB (US\$ 33) are relatively high – annual per capita health expenditure is less than US\$ 20.

Hotel services form a large proportion of costs in most cases, at around 60 per cent.

The proportions of hotel, drug and diagnostic costs for malaria cases vary greatly between hospitals, suggesting different resource-use strategies. By contrast, the input cost pattern per TB case is similar across hospitals.

The proportion of costs allocated to staff is similar between hospitals. Staff costs are relatively low due to a reliance on technical and auxiliary staff and student nurses.

Diagnostic tests are a relatively small fraction of patient costs. There are often equipment breakdowns and shortages of laboratory supplies. Three of the hospitals have consistently high mean costs for comparable or lower quality services relative to the other three. This suggests sub-optimal use of resources or relative inefficiency.

The results of the tracer method can help hospital managers to identify cost components that should be targeted for improving efficiency. In this example, hotel and staff costs should be the key targets.

The researchers note several advantages of the tracer method over accounting approaches:

The process of estimating and costing inputs for an individual case brings us closer to the actual cost of a given service.

Clearly-defined tracers or sets of tracers avoid the problem of having different mixes of diseases in comparing costs.

Inefficiencies are easily exposed by comparing actual costs against costs derived from standard management protocols.

Source(s):

'Hospital costs of high-burden diseases: malaria and pulmonary tuberculosis in a high HIV prevalence context in Zimbabwe', *Tropical Medicine and International Health* 8 (3): 242-250, by C. Hongoro and B. McPake, 2003

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