**CASE STUDY ON UNDERSTANDING HEALTH COSTS**

Within the City of Lilliput, elective orthopaedic and trauma services are provided on two hospital sites. There is a specialist orthopaedic hospital which only undertakes elective orthopaedic surgery while the general hospital which is 15 kilometres away in the City Centre undertakes both trauma and elective surgery cases. The relevant costs associated with each hospital were as follows:-

|  |  |  |
| --- | --- | --- |
|  | **General hospital – orthopaedics and trauma costs only** | **Specialist orthopaedics hospital** |
|  | **euros** | **euros** |
| Medical staff | 700,000 | 780,000 |
| Nursing and other professional staff | 1,500,000 | 1,600,000 |
| Drugs | 260,000 | 150,000 |
| Catering consumables costs | 200,000 | 180,000 |
| Catering staff costs | 400,000 | 350,000 |
| (share of total hospital catering costs) |
| Buildings costs | 350,000 | 100,000 |
| (share of total hospital buildings costs) |
| Administrative costs | 250,000 | 150,000 |
| (share of total hospital admin costs) |
| Total costs | 3,660,000 | 3,310,000 |
|  |  |  |
| Total number of elective orthopaedic in-patients | 400 | 4000 |
| total number of trauma in-patients | 4000 | - |
| Total number of hospital in-patients | 60,000 | 4,000 |

A proposal was made and initiated for the all of the elective orthopaedic work at the general hospital to be transferred to the specialist hospital. The following points were made at the time of the proposal:-

         since elective orthopaedic patients at the general hospital represented 10% of total orthopaedic and trauma patients at the hospital it could be assumed that their transfer would result in a 10% saving in the total costs of orthopaedic and trauma services. Thus the savings would be: 10% x 3,660,000 = 366,000 euros.

         an additional 400 orthopaedic patients at the specialist hospital would imply a 10% increase in workload at that hospital. Thus it was assumed that their transfer would result in a 10% cost increase in the total costs of the specialist hospital. Thus the cost increase would be: 10% x 3,310,000 = 331,000 euros.

The transfer of orthopaedic patients from the general hospital to the specialist hospital was seen as having considerable clinical benefits and was projected to make an overall cost saving of 35,000 euros (366,000 - 331,000). However, a year after the change took place it was discovered that costs at the general hospital had reduced by less than 5% (even after all possible measures were taken to reduce costs) whereas costs at the specialist unit increased by more than 10% when a new operating theatre was built to cope with the extra case load.

**Required**

         Comment on the robustness of the costing exercise that was undertaken

         Identify what additional information would have been needed to make a more accurate costing

**POINTERS TO CASE STUDY**

         **Medical and nursing staff costs** – these costs do not necessarily behave in a linear manner. Changes of 10% in activity levels cannot be assumed to equate to 10% variations in costs

         **Drugs costs** – although these costs might be thought to vary in accordance with patient numbers, there may be differences in average drug consumption levels between trauma patients and elective orthopaedic patients. Thus will a 10% reduction in activity levels at the general hospital (mixed elective and trauma) mean a 10% saving in drugs costs?

         **Catering consumables costs** – same question as for drugs costs

         **Catering staff costs/buildings costs/administrative costs**. – can we just assume that a 10% increase in activity levels in the specialist hospital will generate a 10% increase in these costs. For example, what would be the impact on estates costs of the new operating theatre.

         **Catering staff costs/buildings costs/administrative costs –** the costs attributed to the orthopaedics and trauma department at the general hospital are just a share of the total costs of the hospital as a whole. It is unclear as to the basis by which these costs have been attributed to the orthopaedics and trauma department. Could we, therefore, just assume that a 10% reduction in activity levels in the department will result in a real 10% reduction in these costs.