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The Ratio Control System for Hospitals

BY WILLIAM A. DAWSON

HOSPITALS operate on a yearly budget. The budget is built up from the current financial experience of the institution as a whole, but too often little consideration is given to the specific services individual departments will be required to render within the budget allowance.

The budget does not set limits which should not be exceeded in controlling the expenditures of the several departments of operation in relation to the number of units of service to be rendered. This is because an unknown quantity prevails—how many units of service will a department be required to provide? The budget is worked out with the advice and approval of the department head. It is his promise to operate his department for a given sum, but the unknown quantity—service

units—is usually beyond his control. Frequently the expenses which are more or less constant, regardless of volume of service, are a small part of a department's total budget. However, within his control are the direct expenses, and for these he is responsible.

Increased expenditures may or may not mean inefficiency or waste. They may be occasioned by a larger volume of service. But in any event the increase must be explained.

The ratio control system is a means of measuring efficiency, justifying increased expenditures and unit costs, and establishing budgetary control. It is a simple method and can be used for any budget system. The following departmental expense statement suggests the procedure of operating the ratio-control system:

EXPENSES, MEN'S SURGICAL WARD

January, 1938

| Direct expenses | Budget | | Actual January |
|--------------------------------------|-------------|------------|-------------------|
| | Year | January | |
| Supervisors..... | \$ 1,230.00 | \$ 102.50 | \$ 100.00 |
| General duty nurses..... | 8,640.00 | 720.00 | 748.00 |
| Orderlies and attendants..... | 5,500.00 | 458.33 | 468.35 |
| Aides..... | 5,000.00 | 416.67 | 360.58 |
| Total salaries..... | \$20,370.00 | \$1,697.50 | \$1,676.93 |
| Stationery and supplies..... | \$ 240.00 | \$ 20.00 | \$ 20.01 |
| Materials and general supplies..... | 625.00 | 52.08 | 85.73 |
| Medical and surgical supplies..... | 1,100.00 | 91.67 | 110.55 |
| Hospitalization of employees..... | 203.70 | 16.98 | 10.00 |
| Total commodities..... | \$ 2,168.70 | \$ 180.73 | \$ 226.29 |
| Total expenses..... | \$22,538.70 | \$1,878.23 | \$1,903.22 |
| Units of service (patient days)..... | 17,155 | 1,430 | 1,375 |
| Direct unit ratio..... | 1.31 | 1.31 | 1.38 |

This statement should be accepted as a theoretical illustration and not inclu-

sive of all the costs which would enter into the operation of this departmental

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unit. However, it will be clear that the procedure could be used regardless of the number of detailed accounts which go to make up a total. The budget and related expenses should, of course, pertain only to the expenses directly under the control of the department head. For this reason food, housekeeping, and other indirect expenses are excluded from the illustration.

The budget is based upon the experience of the previous year. There are fifty beds in this ward. The occupancy expectancy is 94 per cent. The anticipated service units are therefore 17,155 patient-days.

To establish the unit ratio the total budget estimates of expenses were divided by 17,155. The result of this division is a ratio which, when multiplied by any given number of service units, gives the amount which represents what the expenses should be.

In the same manner, each month's actual expense, divided by each month's actual demand in service units, yields the ratio which is to be compared with the budget ratio.

In the expense statement is a list of accounts which covers the direct expenditures for the men's surgical ward. The first column shows the annual budget allowances on the basis of an anticipated 17,155 patient days. This establishes a ratio of 1.31 per patient-day.

Under actual expenses the items for January are brought down from the expense ledger. The actual patient-days are inserted, and a ratio of 1.38 is established against a budget ratio of 1.31.

A glance at the detail reveals fewer patient-days and a slight increase in expenses. Closer observation shows that the salary total remained the same but the increase appears in the commodity section, particularly in materials and general supplies, and medical and surgical supplies. Approximately one hundred dollars has been spent on these

two items over the amount indicated by the ratio 1.31. On this basis, both the administrator and the department head would be justified in asking for an accounting of supplies used.

This illustrates the advantage of the ratio system over straight budget accounting. The relatively small excess over the budget average in the month of January might easily have passed unnoticed.

The apparent overdraft is but \$24.99, the difference between the budget expense of \$1,876.23 and the actual expense of \$1,903.22. The actual overdraft is \$101.97. The budget-days are 1,430; the actual days 1,375; a decrease of 55 days. If 1,375 is multiplied by the budget ratio of 1.31, it is found that the department expense, on the basis of service rendered, should have been \$1,801.25 as against the actual expense of \$1,903.22.

It is important to notice that the ratio has called attention to a situation which might not have been noticed. The small drop in patient-days would not be sufficient to warn of this variance from the established standard. Neither the superintendent nor the department head would feel the effect of a decrease of less than two patient-days per day. Big differences announce themselves, but it is not the big differences which test the skill of the administrator. It is rather the ability to recognize and stop small leaks that drain away large sums over a period of time and wipe out that margin of safety on which successful administration depends. The ratio system gives the administrator a chance to control small losses.

A question that might be raised is that of the impossibility of varying expense proportionately to demand. Granting this, if the ratio is not used indiscriminately to find fault with a department's operations, but is used in connection with all other factors in a given situation, it will prove useful.