The role and needs of the nursing executive are changing. We are called upon to make and justify decisions that are increasingly more complex and critical. Decisions, even intuitive ones are only as good as the data available for formulating, analyzing and evaluating them; the control of information means power. Microcomputers provide a tool for inexpensive, flexible information retrieval and allow the executive to explore data, identify questions and test solutions as never before.

We have developed three administrative application programs which run on an IBM Personal Computer, for use in various nursing departments. In addition to meeting traditional needs for recordkeeping, reports are designed to facilitate decision making.

**Personnel budget projection and analysis of variance**

Based on nursing care hour standards, patient days or visits and ratio of staff by title, the program calculates required patient care and indirect care staff needed. Average salary by title yields anticipated expenditure. Available staff compared to required staff results in tabulation of variance, funding is then designated as salary for new hires or supplemental staffing.

Each month an analysis of variance can be performed to determine if over or under expenditure was based on a change in patient days, salary or hours of care per patient. A decision can then be made as to whether the variance was justified and whether action is indicated.

**Nursing care hour computation and analysis of staff distribution**

Input of days worked and patient days by shift and unit, yields calculations of nursing care hours by patient day or visit, as typically mandated by regulatory agencies. Input of patient days by acuity level yields average patient type and hours of care per patient by acuity level.

Graphic charts are used to help visualize problems. The adequacy of staffing is best displayed by comparing nursing days required to days actually worked. This adjusts for varying unit nursing care standards, acuity levels and workloads, and tells the executive at a glance, the presence and size of staffing inequities.

**Personnel data file and comparative profile**

Thirty three items of information are entered for each employee including demographics, education and employment data. Standard reports include personnel count by division and title, name list by cost center, salary expenditure by title and validation listing for license expiration check, C.P.R. update needed, annual evaluation, etc.

A unique feature is a flexible query which allows the user to compare selected groups of employees via a profile analysis. For example, how do employees hired during the past three years who remain on staff, compare to those hired who have resigned? Data needed for decision making.

The first two programs, budget projection and nursing care hours, are applications based on an electronic spreadsheet. The last is a newly written program. All are available from the authors.

Future applications will include; (1) tabulation of routine and critical incident audits for program and performance evaluation, (2) generation of nursing care plans based on nursing diagnosis, and (3) log book record keeping and standard note generation for delivery room, operating room, etc.

The major impact is not the saving of time, although time for file maintenance and report generation has been reduced by two-thirds. The major impact is the availability of information. Questions can be asked which would not have been considered significant enough to warrant the investment of time necessary to tabulate data manually. Studies undertaken reluctantly and infrequently in the past are now a matter of routine and provide the nursing executive with data for making and evaluating decisions.

