

tions about methods which would be effective in influencing doctors to change habits.

In the New York City study mentioned above, stability in prescribing choices over time was studied in an institution where doctors were young, group relationships of medical practice were strong, and most doctors were qualified in a specialty.¹³ The finding that 99 drugs accounted for about nine-tenths of the prescribing in two study periods one year apart, 1963 and 1964, may be considered indicative of considerable stability. In fact 13 drugs made up about half of the prescribing in each period studied. The biological variables—the incidence and prevalence of disease—appeared to influence doctors' choices strongly despite the pressure of advertising. One implication of high stability is that the institution's drug supply is more amenable to bulk purchase and standard specifications and handling if rapid turnover of prescribing style does not have to be accommodated. This subject might be studied as an aspect of cooperation toward institutional goals, or goals of the medical care system.

Forsyth also found an index of stability in the fact that only 13 per cent of the prescriptions studied were for drugs less than two years old (in 1960-1961).⁶

Variation in prescribing choices between institutions and areas must be approached with caution because of differences in the composition of patient diagnoses, in age, and other pertinent variables. A current study of utilization of drugs at four different types of hospitals (public and voluntary, teaching and nonteaching) attempts some comparisons. Fewer than 20 per cent of the drugs which turned up at least once were used at all four hospitals studied; 45 per cent of the drugs actually prescribed were used at a single institution. The hospital with the longest list of different prescribed drugs was the smallest

hospital (a voluntary one) and did not take on the most complex medical problems.⁵ A measure of interhospital consensus might be an interesting index of evolution toward a rational hospital and medical system (given the necessary scientific base). One must give weight to frequency of appearance of a drug as well as to its ever having appeared in order to avoid overemphasizing the occasional idiosyncrasy of a physician or the patient with a bizarre problem.

Therapeutic Probabilities of Drugs

Studies which identify the therapeutic probabilities attached to the various drugs prescribed by physicians illuminate another aspect of performance in the health services. The prescription or chart is the source of information on what was prescribed; interview or questionnaire methods are used to classify the therapeutic intent, although available listings of therapeutic classes of drugs could be drawn on up to a point. In the Forsyth study, the prescriber himself was asked about intent. A surprisingly low proportion of "specific" drugs, such as digitalis in heart disease, were prescribed. Use of drugs with low probability of success reflects a combination of doctor-patient situations where the need of the patient for reassurance, validation of the sick role and so on, is most easily met by prescribing drugs which had no strong likelihood of therapeutic effect and drugs which provide a placebo effect; types of disease where symptomatic treatment is all that can rationally be offered; inadequacy of diagnosis; and lack of knowledge on the part of the physician. Analysis of these diverse situations leads off into several directions in interpreting strong and weak areas in medical care—medical education, unsolved problems in medical research, social provision for diagnostic facilities, and supportive social and psychological services for the population. In