

PIFTY-EIGHT YEARS after Abraham Flexner's revolutionary report, there is, according to the National Advisory Commission on Health Manpower, another "crisis in American health care." In 1910 Flexner found that there were too many physicians too poorly trained. In November, 1967, the commission found that there are too few physicians, most of whom are trained for the specialties.

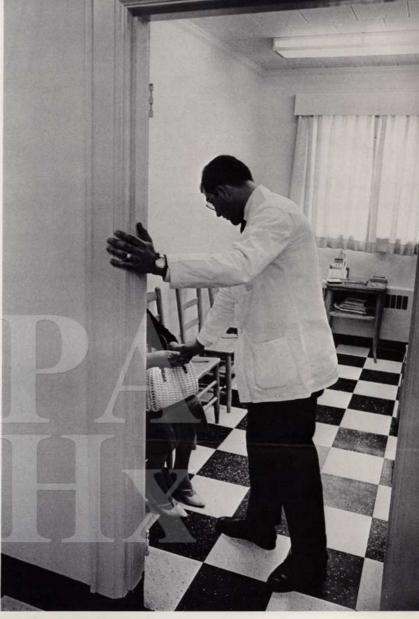
Since less than 2 per cent of the physicians who graduate from U.S. medical schools go into general practice, large sections of the country, says the manpower report, are left without convenient access to a general practitioner. Even allowing for the anticipated increase in the number of physicians who will have graduated by 1976, the need for direct consultations between physicians and patients will exceed by far the practitioner hours available.

The pressures that create a constantly widening gap in the personal relation between physician and patient are many. On the one hand there is the rising tide of supervisory, clerical and nonmedical chores every practitioner must face. On the other hand, he feels compelled to keep up with the increasingly complex techniques and new procedures of modern practice. These encroachments on his office consultation hours come, ironically, at a time when physician-directed services at clinics, laboratories and hospitals are at an all-time high. It is the depersonalization of this care, the absence of continuous relationship with a trusted physician that most disturbs the patient.

In a much-heralded first step toward closing this gap—or, at least, "narrowing it a little"—Dr. Eugene A. Stead, Jr., former chairman of the Department of Medicine at Duke University Medical Center, Durham, N.C., met in 1965 with a group of medical educators to consider the problems of health manpower and to propose innovations in health services that might ease the crisis.

For tapping a whole new source of personnel, Dr. Stead proposed that Duke University recruit for further training the many U.S. Army and Navy medical corpsmen who annually get their discharges from the Armed Services. With two years of medical education, these men, already familiar with some

INTRODUCING HIMSELF, Edward L. Panepento explains physician's assistant role to patient at Plymouth Clinic in North Carolina.





PHYSICIAN'S ASSISTANT:

aide to harassed doctors

FIRST FULL-TIME CLINICAL ASSISTANT, Craig Bruno (right) confers with Dr. Allen Taylor, radiologist at Washington County Hospital in Plymouth, Reading x-rays is part of training. aspects of patient care, could supply additional personnel in those areas where the manpower shortage was particularly acute. As originally conceived, the proposed program would train a group of aides—persons who held a position "somewhere between technician and nurse, or a sort of supertechnician." Since then, however, the plan has developed into a curriculum conferring the title of physician's assistant—a classification new to American medicine, but one with an honored tradition in Europe, the Soviet Union and North Africa.

Four ex-Navy corpsmen, selected from many applicants, composed Duke's first graduating class in 1967. They promptly found posts in the Duke University Medical Center's endocrine laboratory and in the renal dialysis, cardiac care and hyperbaric chamber units. The 12 graduates of the 1968 class broke further ground by spending their eightweek period of clinical rotation in hospitals and clinics other than Duke's.

Helping to restore the personal touch to medicine is only one of the tasks performed for the busy physician by these most recent recruits to health services. Keeping doctor's hours from sunup to sundown—and through the night, when necessary—they are equipped to stand in for their physician employers everywhere except during diagnosis and determination of treatment. Debugging sensitive electronic equipment, taking histories and doing preliminary physicals, suturing minor wounds, giving injections to housebound patients and manning a dialysis unit are all in a day's work.

"I want to help restore the personal touch to the practice of medicine," says Craig Bruno, an ex-Navy corpsman who is the program's first graduate to be hired on a oneyear trial basis at a community clinic. When he began his two months of clinical rotation at the Plymouth (N.C.) Clinic, there was some misgiving on all sides. "Initially, I had reservations about how an assistant like Mr. Bruno would fit into our scheme of things here," says Dr. Ernest W. Furgurson, codirector. "After all, we have nurses who have been with us for 10 years or more. We were also worried about our technicians. How would they respond to a stranger who, with only two years of training, steps in as "the physician's assistant"?"

So smooth was this transition, however, that when Mr. Bruno left Plymouth to complete his training at Duke, the Washington County Hospital nurses gave him a farewell party and the entire clinic staff agreed to having him return for a year's trial. "We found him well trained and competent to take over, not only in routine matters, but in emergencies as well," says Dr. Furgurson. "If the trial year works out as well as we anticipate, we'll offer him another contract."

Concern over status

Despite the success of physician's assistant Bruno, however, there still remains the unsolved, complex problem of status. "In a close-knit community like Plymouth, this can be a serious matter," says Dr. Alban Papineau, clinic codirector. "As long as the assistant is aware of the limitations, as well as the potential, of his role, he can anticipate a secure future." That the more ambitious among the assistants may in time chafe at these limitations is an eventuality all participants foresee. One solution, where financing can be arranged, is for the P.A. to accumulate credits toward a doctorate, a possibility still in the discussion stages at Duke.

Determining what and how much the P.A.s would need to know, and how to provide it effectively, is a question not yet fully decided. "Originally, we needed a curriculum that provided tools for understanding health problems in depth, but within a limited clinical

area," says Dr. Stead, who is now Visiting Professor of Medicine at Cornell University Medical College, New York. "This meant intensive training that complemented but did not replace available health teams. We were not attempting to provide a medical education in two years to high school graduates."

What has evolved from the initial plan is a two-year preclinical and clinical program designed to teach the student the rudiments of anatomy, physiology, pathophysiology, pharmacology and animal surgery and to orient him to biologic systems, laboratory techniques and patient care. Because familiarity with medical instrumentation is essential, the student P.A.s spend a month in the electronic instrument laboratory acquiring skills that will be useful to them in the administration and repair of oxygen-therapy, ECG, and respiration machines and other electronic equipment.

"During his training period, the student observes surgery, autopsies, hyperbaric treatment and the taking of x-rays," says Dr. Harvey Estes, Jr., chairman of the Department of Community Health Sciences, who assumed charge of P.A. education when, in 1967, Dr. Stead took a year's leave. "Coupled with his nursing studies, this observation helps the students develop basic skills through direct patient contact. Under close medical and nursing supervision, they learn how to measure vital signs and to administer nursing treatment."

Unlike medical students and interns, whose common background, prolonged years of education and shared experience tend to make them a homogeneous group, the P.A. candidates are noteworthy for the diversity of their backgrounds, experience, and education. "These young men have been out in the world a while with time to think about their goals," says Dr. Estes. "This makes them more flexible and diversified in their outlook,

REMOVAL OF CLAVICULAR FIGURE-8 CAST by Dr. Alban Papineau is observed by ex-corpsman Bruno, whose Navy specialty was casting. On rounds with Dr. Ernest Furgurson (right), he visits patient hospitalized with diabetic gangrene. Drs. Papineau and Furgurson, codirectors of clinic, requested a physi-

cian's assistant on a one-year trial basis when their search for a third clinic partner failed. Both men praise the P.A.'s rapport with patients and personnel,







PRE-EMPLOYMENT PHYSICAL for pulp mill worker is completed by Mr. Bruno, who will present findings to Drs. Papineau and Furgurson for follow-up and

diagnosis. Patients in this small industrial town have accepted these aides and find the more leisurely examinations and listening time reassuring.

and hence more adaptable to a program that is still relatively unstructured."

Screening the hundreds of applications that flow into Duke's Department of Community Health Sciences for the 12 annual openings is the job of Drs. Estes and D. Robert Howard, the program's medical director. In addition to having a high school education and some nursing or military medical experience, candidates must make a good showing in the Otis I.Q. tests and the Minnesota Multiphasic Personality Inventory. When they are placed, beginning salaries for P.A.s run from \$8000 to \$10,000 a year.

The program is not without its critics, who see in its presently unformed stage many medical, legal and ethical hazards. "Some critics fear that we are merely turning out second-class doctors whom we will not be able to control once they are in a clinical situation removed from the university," says Dr. Estes. "They foresee the temptation for a P.A. to play doctor in a remote rural area that may not be carefully monitored by the equivalent of a county medical society. Possible solutions lie in registry and professional organization under A.M.A. auspices and supervision."

The Duke group is the first to admit that these knotty problems have not yet been solved, but in the response to the program they see an opportunity for expanding the present legal definitions concerning who may be entrusted with the care of the ill.

While physicians regard medicine as an art as well as a science, the law regards it as "a business or trade" and construes "all manpower use patterns in that context in determining whether they are legitimate," according to Dr. Edward H. Forgotson, Associate Professor at the School of Public Health, University of California, Los Angeles. Following a seminar held at Duke last spring, a committee was formed under Dr. Forgotson's direction to study the legal and ethical implications of such manpower innovations in medicine as the advent of the physician's assistant. As an important participant in the report of the National Advisory Commission on Health Manpower, Dr. Forgotson and his committee will help draft model legislation that will "permit and encourage innovations while concurrently protecting the public against any dangers and abuses."

Despite critics, growing pains and unsolved questions of registry, licensing and legal revision, the Duke University group considers the prospects for their training program encouraging. "Some conservative members of the medical and paramedical professions tend to regard the P.A.s as a startling innovation," says Dr. Howard. "But those who personally witnessed the usefulness of the assistants in a clinical setting have done a complete turnabout." In the flexibility of the Duke program Dr. Howard finds one of its most positive aspects. For the future he sees in the collaboration of physician, nurse and physician's assistant the nucleus of a new medical team.







