riculum as a basic science when it really is a clinical science as well. As a result, the clinical uses of drugs do not receive the attention they deserve.

The situation was very well stated by the President of the American Medical Association in a recent address:

"Certainly there needs to be a recognition by all elements concerned with medical education that pharmacological principles should not and cannot be limited to a single or conservative series of courses given fairly early in the curriculum of the modern medical student, which almost universally now includes 4 years of medical school and 4 more years of internship and residency.

"The goal of pharmacologic teaching is not a theoretical one. It is not limited to action at the molecular level. It must in part be practical and it should include information concerning safe and effective use of drugs. A key principle is that all drugs are potentially toxic. The student as well as the practicing physician must remain continually aware of the possibility that any drug may do harm as well as good. Such continual awareness comes only from repeated exposure to pharmacologic education."

And he stated: "It is my belief, which I share with many other people who are concerned with this problem, that ideally students should be educated in pharmacology in such a way that as physicians they will have the basic tools for continued learning about new drugs and new developments in therapeutics that will appear during their years of active practice. Furthermore, they should be educated so that during the years of practice they will be oriented to the continuing education of pharmacologic experts in medical schools and not to the advertising of pharmaceutical manufacturers." [6]

In its background paper, "The Drug Prescribers," the Task Force reported on steps taken at a number of medical schools to bridge the gap between pharmacology as a basic and clinical science.

At Harvard University, for example, students are offered an elective seminar on advanced pharmacology in the fourth year which employs a case history approach to drug therapy in which emphasis is placed on problems of drug interaction and adverse drug reactions. I understand that twice as many students apply for admission to this course as can be accepted.

At Columbia University and the University of Florida, clinical pharmacology is now being taught in the third and fourth years in addition to the basic science course.

A number of other schools have begun or are planning to offer similar courses. The Task Force has recommended that a course in clinical pharmacology be included as part of the regular medical curriculum in all schools and that Federal support be provided where the need is apparent.

Perhaps even more important than the urgent need to improve the educational opportunities in our schools of the health professions is the need to improve educational programs and sources of drug information for interns, residents, and practicing physicians, for unless the physician is prepared to go on learning for as long as he practices medicine, there is little hope that he will be able to deal effectively with the obstacles to rational prescribing.

Information on prescription drugs reaches the physician from many sources: medical journals; journals of prescribing such as *The Medical Letter* and *Pharmacology for Physicians;* drug compendia; formularies; textbooks; industry advertising; drug samples; detail men; and postgraduate education.

Surprisingly few of these sources, however, provide the objective, current, and comparative data that the physician needs in order to make sound therapeutic judgments. You may recall, Mr. Chairman, that when I last appeared before the Subcommittee, I spoke of the need to support the efforts of State and local medical societies, in cooperation with medical schools and other health institutions, to provide regularly scheduled postgraduate seminars of current developments in drug therapy. I also discussed the Task Force recommendations about establishments of a comprehensive drug compendium and support for a journal of prescribing.

These are recommendations which I felt should be of tremendous interest to the medical profession, and so on November 7, 1968 I sent a letter to all of the Nation's 306,000 physicians describing our recommendations to provide better drug information and asking for their comments. I am pleased to submit a copy of my letter for the record.

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[6] Wilbur, Dwight L.: "Pharmacology and the Practicing Physician," Proceedings of the Western Pharmacology Society 10:5–11 (1968).