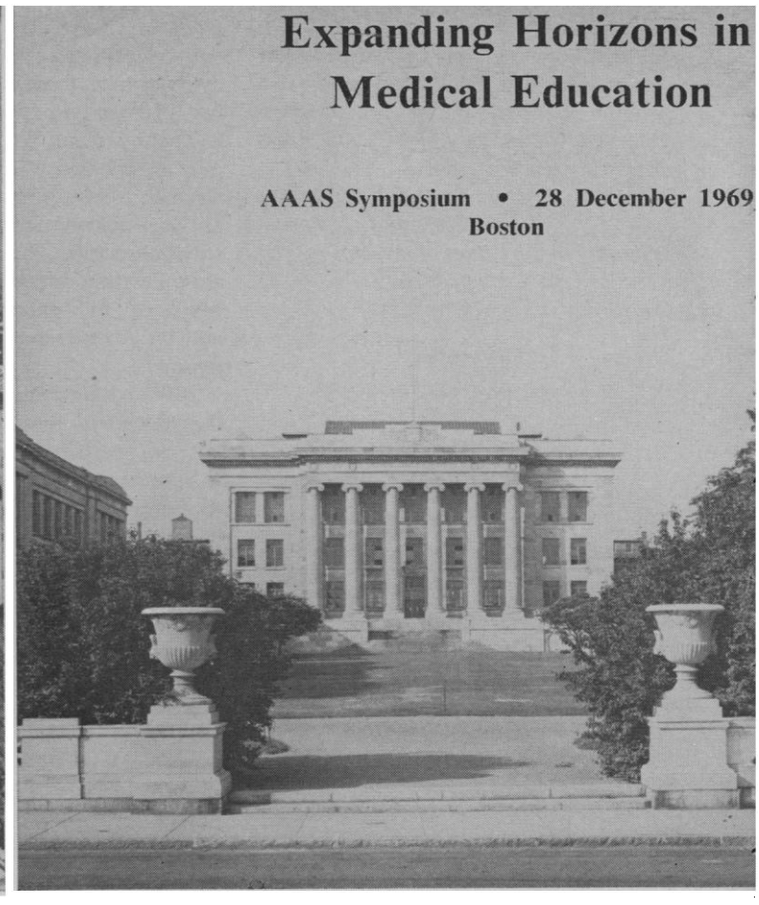

Expanding Horizons in Medical Education

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Boston

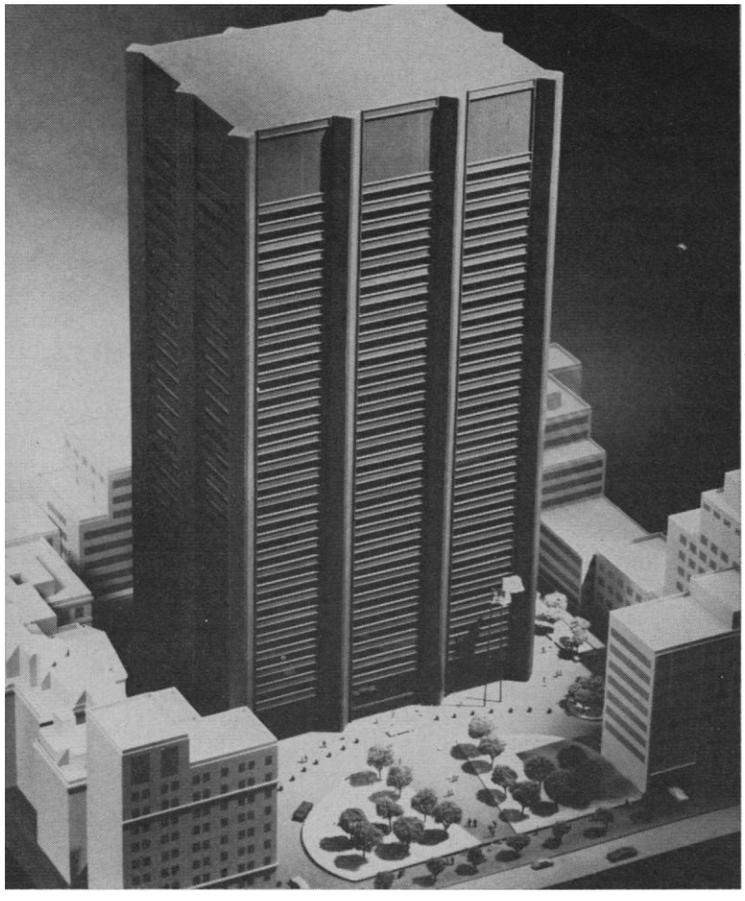
Medical care has become a major industry, accounting for about 6 percent of the gross national product of many advanced nations. The delivery system of medical care is an anachronism; David Rutstein is fond of calling it the last of the cottage industries. Present expectations of society have strained our medical care system and the system seems entirely unequal to the task of coping with unprecedented new demands which clearly are on the horizon. Large increases in money and manpower to meet these demands are not likely to be available. Educational institutions responsive to the needs of society represent potent devices for bringing about change in an intelligent and orderly manner. They are particularly suited to engage in long-range planning; to develop new formats better able to satisfy the requirements of society; and to train the new academic, professional, and paraprofessional personnel that will be required. The symposium, Expanding Horizons in Medical Education, to be held at the AAAS Meeting in Boston, 28 December 1969, is a timely opportunity to examine the challenges to the practice of medicine and the responses which the medical schools can and should make.

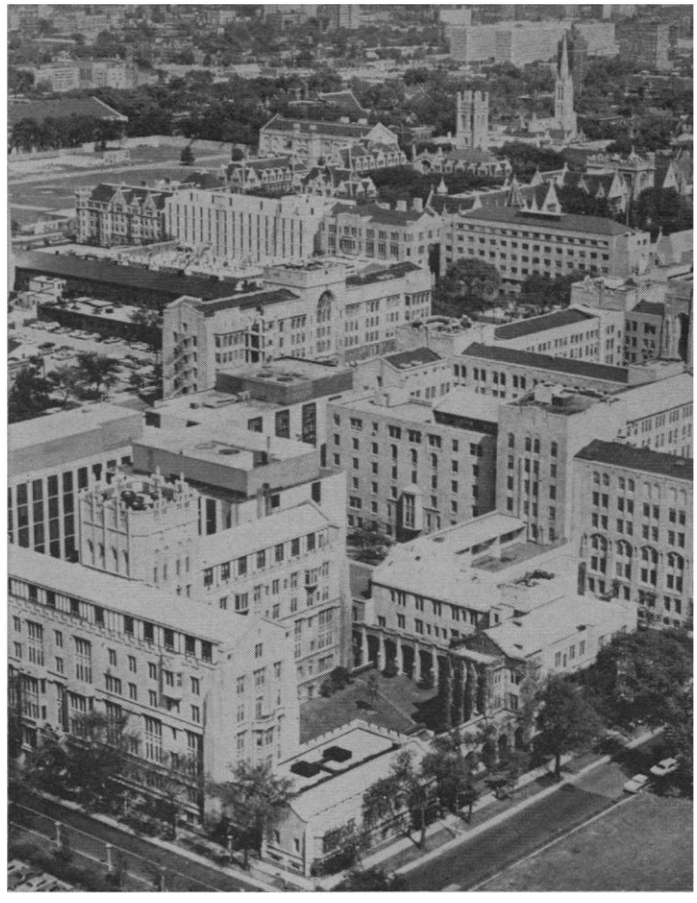
Photos: (Left to Right) New York Hospital–Cornell Medical Center; Harvard Medical School; Mt. Sinai School of Medicine (proposed); University of Chicago Medical School.

The inadequacies of our present system can be seen in the double standard of care which the aged, urban poor, and rural citizens receive on the one hand, and which the relatively affluent urban population receives on the other. The contrast is evident, for example, in the differences in infant mortality and life expectancy. Even middle-class suburbanites appear to find continuing care for their ordinary but pressing day-to-day health problems inadequate: witness the increasing use of hospital emergency rooms as a source of primary health care. The situation has been aggravated by dislocations because of urbanization and an increasingly mobile population; deteriorating physical plants of hospitals; and a rapidly changing information base for the practice of medicine resulting from the rapidly expanding fund of biological knowledge and the impact of contemporary technology. In addition, medicine will be required to cope with public health problems of enormous proportions created by the worldwide population explosion, dwindling food supply, industrial hazards, and pollution of the environment.

Although only a few bits and pieces of modern technology have thus far penetrated modern medical practice, the impact has been enormous. The engineers view biology and medicine as virgin territory for development by application of engineering principles, automation, advanced instrumentation techniques, computers, advanced data storage and retrieval, and a systems approach to the organization and delivery of medical care. What challenges and what rewards will modern technology bring to the practice of medicine?

Despite increases in the area and scope of the interfaces between doctor and basic scientist, or doctor and engineer, a kind of unscientific scholasticism (sometimes called the "art" of medicine) pervades the actual practice of medicine. In a sense, every encounter between physican and patient is an experiment. In diagnosis and treatment, physicians engage in very complicated problem solving starting with a fragmentary data base about complex, multivarant systems which are imperfectly understood and which display enormous individual variations. Can the scientific method be applied more effectively to physician-patient encoun-





ters, improving the outcome in terms of benefit to the patient? Can the depth of our culture also be brought to bear on these encounters so that the human condition of the patient is bettered?

Educational institutions are equipped to conduct the scholarly inquiry and planning required to meet the challenges, and by changing the goals and content of training programs, to alter the organization of medical practice and delivery of medical care in a sound and orderly manner. To meet the needs of the future, medical schools must train a broad range of scientific physicians—from medical administrators on the one hand to psychiatrists on the other—from physicians who will practice as individuals in rural communities to medical school professors and research institute scientists. Students are arriving at medical school better prepared than ever before. What is and can be done to provide a catholic, thoughtful, provocative, sympathetic, and rigorous education for the wide range of future physicians?

Owing to high costs, lack of qualified faculty and students, and other obligations of medical schools, it seems unlikely that the number of graduating physicians will be increased dramatically in the foreseeable future. Such expansion as will occur will be incremental. A wide variety of paramedical personnel will be required to undertake many aspects of medical care. Ideally, the medical schools should undertake the training of these paramedical personnel, not only to ensure a high level of technical competence, but to order a team approach which involves the physician, and to institutionalize professional values in paramedical personnel as a group. The professional values of high standards, ethical principles, self-discipline, and service (which transcend mere economic considerations) are important if high social responsibility of the medical care system is to be maintained.

Because of their resources, medical schools are under enormous pressures to become increasingly engaged in the delivery of medical care. Medical school hospitals frequently are an easily accessible resource for stop-gap solutions of serious community needs in medical care. The changing role of medical schools in the health care delivery system will undoubtedly affect medical education—in some ways for the better, but in some ways detrimentally. To what extent can medical schools fulfill their responsibilities to the community by delivering medical services without jeopardizing their responsibilities to the community in the area of scholarly research, long-range planning, and the training of medical and paramedical professionals?

Change is already underway. Curriculum change has been a topic of active discussion and some action in medical schools for two decades. But we have seen only a bare beginning. Public demands for rapid change are mounting as dissatisfaction and frustration increase. Furthermore, there is no reason to believe that medical schools will avoid the ferment in other parts of the universities. Unlike their docile predecessors, contemporary medical students are activists concerned with justice and social revelance. They will demand that the medical curriculum move more rapidly in the direction of satisfying the expectations of society.

The symposium participants will address themselves to these topics. Hopefully new things will be said. Both morning and afternoon sessions will end with round-table discussions of questions submitted by the audience.

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