

SECOND GENERATION MEDICINE

By Michael Schwartz

Second generation medicine is based on prevention instead of curing. Whereas first generation medicine began with the writings of Hippocrates and was allowed to develop over generations, second generation medicine has come quickly as a response to system overload and thus must be complete with first generation prejudices which insist on more hardware to patch up a crumbling system (more doctors, hospitals, better drugs, heart lung machines, etc.).

First generation medicine is heavily print-oriented. Printed matter is arranged hierarchically and facilitates centralized control. The feedback system is very slow, and although the quantity of information known may be enormous, retrieval of this information (access) is a very tedious process which requires pyramiding of knowledge into high specialization. As a result of print technology, we have a very highly centralized and specialized structure (hospitals and medical centers staffed with very highly skilled specialists). The result of the slow print feedback process has biased medicine in that knowledge can only be applied after something has gone wrong. Careful study of intervention-after-crisis is then written up in journals and later compiled into textbooks.

The acceleration and expansion of medical information has resulted not only in throw-away journals, but throw-away textbooks (try to sell a used medical textbook sometime!) Doctors now cluster in centralized structures so that they can "keep up" with their own specialties and have their flanks protected by other specialists. Urban ghettos and rural areas suffer most because of the former's overwhelming needs and the latter's decentralized locations. These groups have tried to obtain traditional medicine by the use of financial incentives and by outright takeover of medical facilities such as occurred at the Lincoln Hospital in the South Bronx, New York. This overlooked the fact that what is needed is access to health information pertaining to the South Bronx and not merely control of an institution which treats disease. Through the use of newer communications technology, systems which meet the demands for comprehensive, equitably controlled health care can be established.

Therefore, prior to 1970, there were two basic strategies to meet the health needs of America. One was to beef up the present system and the other was the medical radicals' attempt to take over the system.

In 1970, however, E. Grey Diamond drafted: "The open medical school, a community of scholars—the academic plan for the school of medicine, University of Missouri at Kansas City." In it, he correctly viewed the present crisis as one not of hardware or political control. The result is a plan for a new medical system which will stress decentralizing communications tools (newer technologies, such as computers and video).

What is the Kansas City Plan?

In 1969, the Missouri State Legislature appropriated initial planning funds for a new medical school in Kansas City, Missouri, in association with the University of Missouri at Kansas City. The location is on a 135 acre hospital hill which will con-

tain the buildings of the University of Missouri at Kansas City Dental School, Children's Mercy Hospital, the existing Kansas City General Hospital, a major acute psychiatric center, a mental retardation center, and a model extended care facility. The first-year class, which began in September, 1971, includes 40 first-year students, 18 second-year students, and 30 students in the third and advanced years. The curriculum is designed to achieve a number of goals: a) to individualize the education process for medical students by providing continual contact between scholars at all levels and by facilitating the access of these scholars to all necessary sources of information; b) to educate the students in a prototype setting of future offices and practice relationships; c) to develop a model university-community cooperation, where each component provides both programs of special concern and interest to it; and d) to provide the student with a relevant clinical and basic science model with which he can identify and to which he can aspire.

The educational plan consists of a six-year program coordinating two pre-medical and four medical years. The first two years consist of about 75% of the course work in the arts and sciences and the remainder in medical studies. During the final four years, the student will devote about 75% of his time to medicine and patient care, with the remainder set aside for liberal arts courses. Beginning with the third year, the students are divided into docent units. Each docent, a practicing physician who serves as teacher and counselor throughout the student's remaining four years, will be responsible for 12 students—three from each of the last four classes. At the end of the student's sixth year, he will receive an M.D. degree. The basic sciences will be available from all university disciplines with few, if any, departments created. The clinical specialty disciplines as such, will be available in the ten affiliated hospitals but their departmental organization will be responsible to that hospital, rather than to the curriculum per se. The student's space for operations will be in the medical school setting containing his office, those of his fellow students and a docent team. He will constantly operate out of this area, but it will remain his base of operations. Student clinical experience will be accomplished by a twelve-week rotation each year on a 20-bed general medical service, plus a continuing year round,

Aspirin can cause stomach upset!

