

TALK BY DR. FRANK GERBODE TO THE CHIT-CHAT CLUB, SAN FRANCISCO

Medical Manpower in Our Changing Times

May 11, 1970

Health is one of the major crises in America. The problem has many aspects and can't be separated from the "environmental crisis" as a whole. Health--or ill health--is an integral part of poverty conditions in our ghettos. It is associated with the issues of population overgrowth, pollution and the demands for equality of America's minorities. In addition to these spreading social implications, there are problems within the health care system itself: inefficiency in the delivery of care, the uneven quality and distribution of care, and of course its rising costs. I would like to isolate one crucial aspect of the health crisis and then discuss possible solutions to the problem: the growing shortage of medical doctors.

According to the Department of Health, Education and Welfare's Division of Physician Manpower there were 318,000 active physicians in this country in 1969. It is estimated that at least 50,000 additional doctors are needed now to provide adequate health care to the public. Our medical schools clearly cannot graduate 50,000 M.D.'s this June. In fact in 1969 we graduated only about 8,000 doctors from 89 medical schools. This represents 3.9 new doctors per 100,000 people; the ratio in 1955 was 4.2. To increase the present ratio as soon as possible it is conservatively estimated that we should produce 11,000 doctors per year by 1975. Considering current plans for new medical schools and increased student enrollment, we don't foresee graduating more than 9,500 doctors

annually by 1975. Some believe that with the advent of expanded health care coverage at least 15,000 graduates annually will be required to meet the demand in 1980. In contrast, I might note parenthetically that the Soviet Union had 35,000 graduates from its medical schools last year.

In light of our shortage, it is not surprising that in 1967, 8,500 graduates of foreign medical schools--and this includes some Americans--entered the United States to practice. It is a sad commentary that this country, which is probably the most able to afford the cost of its medical manpower needs, must import large numbers of doctors from countries that have invested precious time and money to educate them, and furthermore, need them more than we do.

The number of applicants from foreign medical schools to the American Board of Surgery increased 300% from 1960 to 1969. In 1960 the number of foreign graduates certified by the Board was 37 or 6% of the total, and in 1969 it was 191 or 27.2%. Each year between 50 and 100 foreign physicians in all fields are licensed in California alone.

United Nations statistics show that between 30 and 50% of the annual output of medical schools in Greece, the Philippines, Iran, Turkey, Korea and several Central American countries emigrate to the United States. These countries have health services that are still in the process of developing. There is no doubt that the so-called "Brain Drain" retards this development. It not only reduces the number of practitioners but also deprives the countries' training facilities of promising researchers who often prefer to take advance training in the United

States. Furthermore those same students are potential teachers of the badly needed doctors of the future.

With regard to our own citizens, American medical schools are so crowded that at present 3,000 students from the United States, or the equivalent of seven average student bodies in medical schools here, attend foreign institutions. Many of them study in Rome or Bologna or in Guadalajara, Mexico. Though the quality of these graduates is improving, the director of the Educational Council for Foreign Medical Graduates has admitted that Americans with foreign degrees in certain respects "have not been outstanding, shining examples." This may only reflect the difference in curricula between our schools and foreign schools, but it is a weakness that must be considered.

Unfortunately developments in this country don't seem to favor rapid expansion of medical schools. Financial pressures are so severe that approximately 15 medical schools must consider closing within the next three years unless they receive emergency funds. Furthermore, many schools are currently meeting expenses only by spending endowment funds or by reallocating grants for medical research to support medical training.

The most obvious solution to these problems is to drastically increase the number of medical schools in this country. The desired effects would be augmented health care for the public and decreased costs for services. The question is: where do we get the money to finance the much needed expansion?

The blunt truth is that private and state funds are no longer able to build and support the major burden of medical research and education. When it was made clear that industry and private sources could not carry the costly burden of medical research, it became a matter of national concern, and then of legislative support. The important quality control of this effort came through the principle of establishing peer committees to judge the scientific merit of the proposed research. This has proven to be an excellent method of getting the best from our research dollar, and a similar quality control could be arranged for overt federal support of medical education.

The fact is that the federal government is already supporting much of medical education. During the last fiscal year the Department of Health, Education and Welfare paid for more than half of the total expenditures of medical schools. \$686 million went to 102 schools for research, training and construction. Half of this amount, however, was awarded for research and development, 25% for actual classroom training of medical students, and the other 25% for construction and various public health programs (not Medicare or Medicaid). The distribution of the total was uneven and favored the big established schools: about 50% of the support was received by 20 of the largest medical schools. Though it is wise to invest in reputable institutions, it also seems vital to build new schools that might grow more rapidly than the older ones. Under past policy, one augmentation program allocated ten million dollars but only produced 400 additional M. D. 's.

For the next fiscal year the Nixon administration has asked Congress for a \$20 million increase in institutional support grants as part of the "physician augmentation program." There has also been an increase in the appropriations for construction of teaching facilities, but this is hardly more than a token appropriation. The amount requested for student loans, however, has decreased since last year. We need federal support and the long-range product of the aid will be better doctors and medical care. Should we not recognize the provision of federal subsidy as a serious national responsibility and make the support overt?

Government grants must not only be larger but should also be awarded in an efficient manner. A brief look at the federal health budget demonstrates how piecemeal the grants have been. As I said before, almost \$700 million was awarded to medical schools last year, but the budget shows only \$170 million awarded to Health Manpower Education. The balance is scattered and buried in diverse departments such as health education, research and library facility construction. The task of winning these funds has become a time-consuming ritual. So much effort would be saved by consolidating the many departments under one simple heading like "medical education." This would eliminate one institution's applying and competing for numerous grants, and different divisions within the same university would not have to compete against each other. Both the school and the government would save time and money by processing one grant application rather than a dozen for various aspects of medical education.

This organizational change might clear the way for increased aid. Much as we dislike government participation in education, it should also lead to a vitally necessary understanding by the government and the public that medical education requires large federal subsidies.

It would be naive to think that money alone would make the crisis in health disappear. According to a Harvard economist, "the very hard fact is that simply pouring money into training people. . . does not really get us very far." There must also be changes within the institutions that train people and within the system that delivers medical care to the public.

Educators should review and perhaps revise the present format of medical education in order to increase their schools' output and to improve the quality of education at the same time. They might question features of their own institutions such as length of schooling and partial use of facilities.

A small percentage of medical schools have initiated experimental programs that shorten the period of training to acquire a medical degree. One of these schools is Pennsylvania State University which has, in its own view, a successful and expanding accelerated program. It combines the undergraduate college curriculum with medical training at Jefferson Medical College, allowing the student to graduate in five years with both a bachelor's degree and an M. D. (The program normally takes eight years.) The shortened program has several good effects: it gets doctors into practice sooner than would a regular program; it attracts superior students who might not have considered medicine because of the lengthy

training period; it avoids duplication of courses in college and in medical school; and it allows more years for actual service or for graduate and postgraduate work.

The program initiators recognize that there are disadvantages as well: the student might have difficulty socially since he is three to four years younger than the regular medical student; the student doesn't experience college as a period for growth and maturation; and the program is restricted to very few students.

(Some educators--particularly European--say that accelerated students have no cultural foundation. Their energies are channeled too early and too narrowly. One could say though that this has nothing to do with whether the students make good doctors; it only influences what type of citizen-physicians they will be.)

In the context of existing medical schools--accelerated or not--there is the suggestion to utilize present facilities more fully. This would probably involve expanding teachers' obligations, but it could be done without building more facilities. The basic idea is to increase efficiency in the same way a manufacturer might, by maximal use of the plant. In this case the laboratories should not be idle for hours at a time but should be used as often as possible. Students engaged in independent research could use them outside of regularly scheduled sessions without constant faculty supervision.

There have also been modifications in methods of teaching and in curriculum. Aiming again for efficiency, some schools have introduced supplementary learning aids, such as programmed machines for self-

instruction. These units are intended to save both the students' and teachers' time and are especially suited to courses like anatomy in which there are a great many bits of factual data to be absorbed. Medical faculties are also expanding their use of audio-visual aids, particularly closed circuit television.

Just as there have been necessary changes in the schools, there will also be changes in the delivery of medical care. Providing care, like training doctors, is not just a problem of numbers. It too is a question of making maximal use of existing personnel.

One group of professionals who will probably be better utilized and increasingly responsible for patient care are the nurses. Both doctors and nurses feel that they will eventually have to assume a larger role. Despite "ideological" disagreements as to professional spheres of influence, some institutions have programs underway that already expand the nurses' duties. U. C. at Berkeley has an 18-month training program for "family health practitioners" who are comparable to public health nurses but enjoy more independence.

Since 1963 nurses in hospitals in Memphis, Tennessee have handled 25,000 visits of ambulant patients with chronic diseases (diabetes mellitus, hypertension, heart disease). According to the program director, Dr. John W. Runyan, Jr., patients have accepted the innovation easily, and the nurses are willing to accept the new responsibilities. He has also suggested a fee-for-service policy to avoid problems requiring additional public funding.

Another plan directed at freeing some of the physicians' valuable

time adds a new segment to health manpower. The "physicians' assistants" at Duke University in North Carolina take a two-year course incorporating classroom and clinical training. Many of the students are former Vietnam medics, and Duke's medical school faculty are the teachers. Problems stemming from the program are licensing, legal responsibility and control over what duties the assistants may perform. These difficulties do not overshadow the value of having assistants, and similar programs will most likely grow nationwide.

Other innovative programs are designed to employ paramedicals. One example is New York's New Health Careers program which aims to alleviate the doctor shortage at the same time that it reduces unemployment among the poor. It engages health-service consumers themselves to provide services within their own communities. Their tasks include acting as liaison between local clinic and patient, collecting data and providing services such as blood tests. The initiators of the program say it is too soon to evaluate its effect on the poor who receive the services and on the new workers themselves, but the idea seems worth implementing.

With respect to broader programs, the probable expansion of national health insurance benefits will lead to an increasing number of prospective patients. The Department of Health, Education and Welfare has presented a plan to expand services to Medicare eligibles, and New York Senator Javits has introduced a bill for prepaid mandatory

There are at least five other national programs under consideration, including one from the A.M.A.

national health insurance for all Americans.

To handle the additional demand for services the Kaiser-Permanente group suggest (and use) a screening process to reduce the "entry mix" of sick and well into the doctor's office. This is an attempt to apply technology to a human problem. The aim is better health care for those who need it by using the physicians' limited time more efficiently.

The basis of the Kaiser-Permanente plan is computerized multi-phasic health-testing. Screening divides patients into four groups: well, worried well, early sick and sick. Only the last group is sent directly to the doctor's office. The healthy are referred to health education clinics which teach them how to stay well. This kind of "patient-sorting" does not increase the current number of physicians, but it does help use the manpower supply more effectively.

No one program (for example, national health insurance or the Kaiser-Permanente system) will cure the problems we have in health or make the doctor shortage vanish. Changes that will diminish the health care crisis will come as a result of "a large number of small, day-by-day pieces of hard work." In conclusion, let me repeat that these "small pieces" cannot develop without one necessary ingredient: federal aid. Everyone admits that the shortage of physicians and medical care is a national crisis. Everyone must also admit that it cannot be eased without a large amount of federal support. I've already noted that last year the United States government paid for from 50 to 65% of our medical schools' expenditures. This should show us that large government subsidies are already a reality. They are not a step toward

"creeping socialism"; they are indispensable to maintain quality education both now and in the future.

The means to obtain subsidies must be streamlined. Physicians should not have to devote a considerable segment of their time to win money for their medical schools. Those of us in medical education must stop being part-time bureaucrats so that we will be free to be full-time physicians and teachers. We must accept the fact that our schools have not been and will not be able to maintain themselves with their own funds. And the public and federal government must realize this now so that this vital national problem can be solved by national means, that is by increased federal aid. It should continue to be governed and monitored by non-government peer committees, established on a similar basis as those currently being used in research.

References

1. The blight and the plight. JAMA 212: 312-313, April 1970 (editorial).
2. Doster, Daphne D. : Utilization of available "nurse power" in public health. Amer J Public Health 60:25-37, January 1970.
3. Dunlop, John T. : Economic facets of health care. J Med Ed 45:135 March 1970.
4. Expanded nursing role "inevitable." Amer Med News p. 3, April 20, 1970.
5. Garfield, Sidney R. : The delivery of medical care. Sci Amer April, 1970 pp. 15-23.
6. The great exodus for medical training. Med World News February 20, 1970 pp. 31-38.
7. Lenzer, Anthony: New health careers for the poor. Amer J Public Health 45:45-49 January 1970.
8. Loss of medical manpower in a developing country. J Med Ed 44:1144-1149 December 1969.
9. Medical schools: HEW funded half of '68 expenses. Med Trib April 13, 1970 p. 8.
10. Moving ahead in health statistics. Amer J Public Health 44:1820-1826 October 1969.
11. New teaching methods enliven new--and old--courses. Hosp Physic March 1970 pp. 68-77.
12. Physician aids expected to improve care. Med Trib February 2, 1970 p. 20.
13. A program for the care of patients with chronic diseases. JAMA 211:476-479, January, 1970.
14. U. S. Dept. of Health, Education and Welfare: Division of Physician Manpower: Its mission and organization. 1969.