

REMARKS OF U. S. REPRESENTATIVE JOHN E. FOGARTY, SECOND
CONGRESSIONAL DISTRICT OF RHODE ISLAND AT SECOND NORTH
AMERICAN CONFERENCE OF MEDICAL LABORATORY TECHNOLOGISTS,
SHERATON PARK HOTEL, WASHINGTON, D.C. WEDNESDAY, JUNE 20,
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The invitation you have extended me to discuss
the problems and opportunities of medicine -- as a
Congressman views them -- is deeply appreciated.

Like many other things in medical practice today,
you represent something relatively new: a craft and
skill forged from the advances of scientific medicine --
advances which in the past 15 years have made this
Nation a world leader in medical research.

This is something in which we all take considerable
pride. We know that American medicine is helping to
bring better health to people everywhere; and we know
that in this task American physicians and scientists
have the strongest backing in the world: the medical
technologists whose skills and careful training make
possible the practice of scientific medicine.

As a group you medical technologists scarcely
existed a generation ago. Your real growth and development
came in the postwar period and has closely paralleled the
advance of scientific knowledge and its application to
medical practice.

This has been a heartening development. In my view, it means that broad support of research eventually pays dividends, and in a form we can all understand: better medical care and improved health for all our citizens.

The acceleration of progress in all fields of science has been so rapid in our lifetime that many of us have difficulty grasping its meaning and assessing its impact on our lives. In a recent address before the National Health Forum in New York, General David Sarnoff, Chairman of the Board, Radio Corporation of America made this illuminating observation of science and where it is taking us:

"Science 1900," Sarnoff declared, "there has been more scientific and technological progress than in all the previous centuries of recorded history and this progress is proceeding at an ever accelerating pace. Developments that once would have required many scientific lifetimes are now compressed into a few months. It took half a century to move from mechanical office machines to modern computers; but it took less than a decade to increase the speed of these computers a thousandfold. It took 40 years --

from the Wright brothers to the Second World War -- to push flying speeds up to 500 miles an hour; but less than 15 years to go from 500 miles to 18,000 miles an hour at which manmade satellites now circle the globe.

"How profoundly the world has altered in these 15 years. A hermit emerging today from a 1946 refuge would never have heard of earth and solar satellites or atomic reactors. Automation would be an alien word. He would never have flown in a jet plane or seen the inside of a glass-walled building. He would never have watched color television or listened to stereophonic music."

Yes, the world is indeed changing. And the practice of medicine with it.

When I was a boy a physician had pitifully few weapons with which to combat a serious illness. A fulminating infection frequently brought swift death in those pre-penicillin days. Cancer diagnosis and treatment were crude, primitive, and often too late to benefit the patient; heart disease was so poorly understood that cases of heart attack were often passed off as "acute indigestion." Not infrequently, a physician could best serve his patient by leaving him alone and by making sure no obstacles were placed in Nature's way.

And today? Well, the odds have changed -- rather spectacularly. The life span of the average American has increased to slightly more than 70 years. At the turn of the century it was only 47. Largely by reducing the high death rate from infections in infancy and early childhood, we have added almost a quarter-century to the lifespan of our people.

With the development of new laboratory techniques, the practice of medicine in recent years has undergone steady change. Physicians formerly dependent on the gross impressions of the five senses could now turn to the precision tools of the laboratory for help in diagnosing and treating disease. More than ever, the practicing physician has become dependent on the highly skilled services of the scientists and supporting technologists.

The gains we have made in the postwar period are only the beginning. We stand at the threshold of a new age in which medicine's scientific base will provide the underpinnings for all the health professions.

I am confident that the broad support we have given science will lead to increasingly effective control over

maintenance of health. What we have accomplished in the first half of the century in safeguarding the lives of children will be matched in the second half by equally impressive gains on the other end of the age spectrum.

As we learn more about the chemical and physical basis of life, we will be able to predict changes in health and to alter or prevent such changes. The medicine of the future will truly be preventive medicine. We will learn how to attenuate the aging process and how to support man against the encroachment of his environment.

To accomplish these objectives we will require in the practice of medicine a high degree of sophistication and an increasing reliance on supportive skills such as you who are gathered here today represent.

I think we can all take satisfaction in the knowledge that the field of medical technology has reached its high level in the United States and its sister nations in the western hemisphere. Much of the credit for this belongs with the American Society of Medical Technologists and the Canadian Society of Laboratory Technologists. These groups, together with sister organizations in Latin America, have done much to improve standards of education and training in this area of clinical medicine.

We hear much these days about automation and the changes it is producing in our economy. Many of you are wondering, no doubt, how automatic data processing will affect your field and whether your careers will be adversely influenced.

On this score I think you have nothing to fear. Automatic data-processing will relieve many of you of the drudgery of routine, repetitive tasks, thus enabling you to turn your attention to more creative aspects of laboratory work. Total output in an automated laboratory will increase markedly, and this expansion will require more people, not less. In short, automation will serve to increase the availability of your services and to enhance your value to clinical medicine.

I should like to turn now to some of the broader problems of medicine which vitally affect all of you. As members of a health profession, I need not tell you America needs more physicians and more people in all the ancillary services of medicine. The population of the United States is growing rapidly. The output of health professionals will have to rise more rapidly than it has since World War II simply to avoid a drop in the number of physicians per 100,000 population.

The Bane Report, Physicians for a Growing America, has pointed out that "over the next decade the population is expected to increase by more than 3.5 million a year, with growth proportionately greater among old people and children who require more medical care Aside from the need of our people for personal medical services, a continuing and increasing supply of physicians must also be assured for research, teaching, industry, public health, and other essential functions."

". . . . To maintain the present ratio of physicians to population," the report states, "will require an increase in the graduates of schools of medicine and osteopathy from the present 7,400 to about 11,000 by 1975. This means a needed additional production of 3,600 graduates annually.

Well, who will supply the money to build and operate the equivalent of 20 new medical schools to turn out these physicians? I think the answer is clear. Unless Federal funds are provided, the job will not get done. There is in truth no practical possibility that the output of physicians can be substantially increased without extensive Federal aid.

To this end, I have introduced in Congress three bills to deal with each of the three categories of need: grants for construction of new facilities, grants for general operating expenses, and funds for scholarships to attract and to aid students. The general features of the three bills have been consolidated in a single bill -- H.R. 4999 -- introduced by Congressman Harris and supported by the Administration. The bill would make available a total of \$750 million in Federal funds over the next decade for construction of new, and for rehabilitation of old, professional schools. It would ultimately provide about \$17 million per year for scholarships amounting to a maximum of \$2,000 per year to qualified and needy students. It would provide \$1,000 per year per student receiving a scholarship to each school for general operating expenses.

Closely related to the urgent problem to training more physicians is the need for realistic measures to meet the research manpower shortage in the decade ahead.

In a report prepared for Congress, the National Institutes of Health estimates that total national expenditures for medical research will rise to \$3 billion a year in 1970. This is about three times the current effort.

Obviously, a national program of this size will involve not only a rapid expansion of facilities and equipment for health research, but also an unprecedented increase in the output of trained investigators -- physicians and Ph.D.'s in the sciences, plus supporting personnel.

The report states that the number of competent personnel must double over the coming decade in order to staff a program three times the size of the current effort. This calls for an increase in medical research manpower from the current level of about 40,000 to about 80,000 in 1970.

This anticipated increase seems altogether reasonable in view of the facts that the number of professional workers engaged full or part-time in medical research jumped from 19,000 in 1954 to almost 40,000 in 1960 -- more than a

100 percent increase. During this period, more and more M.D.'s sought to combine research with teaching or service responsibilities. Participation of Ph.D.-trained manpower also rose rapidly, accompanied by the growing involvement of the physical and social and behavioral sciences in medical research.

If the needed manpower for medical research in the decade ahead is to be produced, the report states, we must retain all of the existing mechanisms, modifying them where such action is appropriate. Additional measures, directed mainly at expanding the total pool of trained manpower, are indicated if we are to enlarge the manpower supply for the long run. These are:

1. Expand college matriculation, especially among more talented, less privileged youth.
2. Enlarge graduate enrollment in all fields, but especially in fields most directly relevant to medical research.
3. Increase the number of medical students as rapidly as possible to meet all the health needs of the Nation.

4. Accelerate the output of Ph.D.'s
5. Orient the Nation's youth toward the exciting challenges and rewarding career opportunities in biology and medicine.

I need not point out to this audience that the manpower requirements outlined here will have a vital bearing on clinical medicine in the 1960's and on the increasing important role which medical technologists will play in bringing to all Americans the higher standards of health and medical care which are their just due. I wish you well in this important task.