Convocation Address

Michigan State University

29 November 1984

I am honored by the invitation to participate with you today in the 14th Convocation Exercises of the College of Osteopathic Medicine - to welcome a new class embarking on a course of study which in due course will accord you the title of Doctor with all the rights, privileges and responsibilities which that implies. The next few years are, for most of you, the most important years of your life, for it is this period that will decide for many, your careers and your goals.

It is traditional at Convocation to honor someone with the opportunity to offer words of guidance - words which in some manner may offer insight or stimulate reflection and so enrich your educational experience. It is a daunting task which I approach with humility, recognizing only too well from personal experience that it is difficult at this time for you to give thought to any subject which does not directly bear on that moment four years from now when you become full-fledged members of the ancient guild of physicians and surgeons. However, you will be relieved to know that I have borne in mind the advice given to the young Dean of Canterbury when he was approached by the Lord Chamberlain prior to giving his inaugural sermon. The Lord Chamberlain explained that the Queen would be attending and wished to know something about the sermon. The Dean anxiously queried if there was some subject about which the Queen would like him to speak.

The Chamberlain replied that, in fact, the Queen hadn't the slightest interest in the subject matter - only the length of the sermon - which had best be brief.

For nearly 11 years, I had the opportunity to work as part of the World Health Organization in the campaign which for the first time succeeded in eradicating a disease. On return, I was asked by many as to what was the most important thing I learned from that experience. The unanswerable question, I finally decided, deserved an appropriate answer. "Choose your specialty in medicine with care." It is really quite an awkward problem when, upon reaching the preeminent position of being an international authority on a disease, one finds that the disease has vanished. It is akin to pulling the rug out from under one's own feet. Amongst such circumstances and persons, deans are made!

Medical education, as it did when I went to school, continues its focus primarily, and perhaps necessarily, on developing the skills necessary for the understanding and diagnosis of individual illnesses and the therapeutic measures which should be applied. With the now immense body of medical knowledge, most of you will be all but totally preoccupied with absorbing at least part of the vast library of information available, and with developing a host of technical skills. There will be anxiety, an understandable anxiety, that in only months or years, the decisions which you personally may make could mean life or death to another human being. Under such circumstances, it is difficult to think of the individual except as a case - difficult to think of the individual as part of a family, let alone a community or to contemplate

what might have been done to prevent the illness. In the milieu of a medical school, future aspirations focus on the care of illnesses and the classic specialties of clinical medicine, for these comprise most of the curriculum.

As one moves through residency training, confidence accrues through experience, that illnesses in a large proportion of patients resolve without specific diagnosis, or indeed therapy, and that most emergencies can be readily handled - comparatively simply. Only a small proportion of the illnesses which you will see will prove to be intellectually demanding. Often, not until this time do many begin to reflect on the art and purpose of medicine which extend beyond its science - on the case as a human being and the meaning of the illness to him and his family - on the root cause of diseases and possibly their prevention - on the challenge and excitement of research in probing that which is yet unknown - and perhaps - on the formidable challenges to ourselves as a global society and the role which health professionals may play in meeting such challenges.

My own career began in the field of internal medicine. My focus, however, abruptly changed during an interrupted residency when I was sent by the Communicable Disease Center on trips to Asia and to Central and South America to help deal with outbreaks of cholera, botulism and poliomyelitis. On visits to hospitals in these countires, I was startled to find entire wards given over to tetanus, typhoid, poliomyelitis, diphtheria and malnutrition. It was difficult to believe that so many beds could be devoted to illnesses, all entirely

preventable, even a single case of which would have been a subject for grand rounds in the United States. At the same time, I could not help but ponder what possible hopes for a better life could be contemplated by the teeming masses of people one encountered everywhere in Calcutta and Mexico City. Perhaps, more jarring to conscience and comprehension was to return to the United States and to luxuriate in drawing a potable glass of water water from a tap, to view the cornucopia of a modern supermarket and to contemplate a society which regards a telephone, a washing machine and a television set as virtual necessities - necessities which 90% of the world's population regard as unattainable luxuries. Yet, it was surprising to talk with colleagues and friends, and to find that they only dimly perceived where one had been and that they were, at best, polite, but more often bored, by what might be occurring beyond their immediate environment.

It was disturbing to return in 1977, after 11 years with the World Health Organization, to find acquaintances less interested in the world beyond our shores than they were when we had left the United States. During this same period, our dependency as a nation on other countries for <u>their</u> natural resources and as markets for <u>our</u> exports had grown exponentially. Today 40% of our exports go to and more than 40% of our imports come from developing countries. Indeed what happens today in Iran or Brazil, for example, has immediate and profound repercussions on <u>our</u> costs for energy and to the stability of <u>our</u> banking system. This represents profound change. Let us not forget that little more than a generation ago, such countries were primarily of interest to tourists, readers of the <u>National Geographic</u> and to a prescient few who, like those long ago, looked beyond the boundaries of a comfortable Roman

Empire and wondered and worried about other peoples and their concerns and their aspirations.

The world of man has grown more interdependent than ever in history; but can we much longer live so comfortably and apart from other nation-states and other peoples less well endowed than we? Lewis Thomas trenchantly noted in a recent paper in Foreign Affairs that man is genetically programmed for social living - a solitary, lone human, being as much of an anachronism as a lone termite or a hermit honey bee. As he points out, we succeeded in surviving for long periods as tribal units. However, with the historically recent invention of nation-states, we began to endanger our place in nature, splitting off into colonies of adversarial groups. Some, by luck or geography or perseverance, have become rich and powerful, others dirt-poor and weak. If there is not a moral obligation to provide assistance to them on the grounds that we are, after all, members of the same social species, more powerful arguments intrude, relating to our own self-interest in having a more stable, predictable world.

Many focus today on the dangers of nuclear proliferation - and what some have called "the final epidemic." There is no question but that this is an issue of overriding concern. Physicians have played an important role in defining the magnitude of the prospective disaster but, as physicians are too often prone to do, they have failed to look beyond the symptoms and the illness to its cause and its prevention. The genesis of the hostilities we fear, originate in a lack of common understanding and shared goals between nation-states. It breeds in a

milieu of hunger, disease and ignorance. It can be translated more specifically into an equation of too many people and too few resources.

It doesn't take a genius to appreciate the futility of periodically sending in the militia to restore order amongst hungry, illiterate masses of people. It's comparable to applying a bandaid to a broken leg. Emergency air shipments of food to those starving in the African Sahel and Ethiopia are palliatives to our collective consciences. Few will bother to point out, however, that this is the 17th year of drought in the Sahel and only 10 years ago, pictures of starving Ethiopians from the very same areas affected today appeared regularly on television, and emergency shipments of food provided the same evanescent bandaid that is being applied today. I know the agony of those people, their desperate struggle simply to live, the hopeless future which they see before them. I was there 10 years ago.

We are prepared to respond, and respond generously, so long as the moguls of the television industry present us each night their 30-second capsules of agony. But once we have applied the bandaids and the television crews return home, the problem is all but forgotten until the next catastrophe occurs. And yet, the whole of history documents only too clearly that basic changes in agricultural - or health - demand substantial and sustained efforts. I am indebted to Ralph Smuckler for my education in the potentials of agriculture - miracles indeed to which your own University - has made extraordinary contributions. But, in this society of expected, instantaneous miracles, we are ill-prepared to devote necessary energies to essential long-term change, changes to

which we as a nation can make unique contributions. And we are even less inclined to address seriously the other part of the equation - the denominator - the numbers of people who seek access to those resources.

In our inward-looking nationalism and materialism, we still have not grasped the importance of this side of the equation. For example, in Central America and Mexico, in just one generation, the population of those countries alone will exceed that of the entire United States today. In less than 20 years, Mexico City itself is forecast to have a population of more than 27 million people, nearly four times the population of metropolitan Los Angeles today. Can the hopes and aspirations of these people be so ignored as they have been over past centuries?

These countries and others require development assistance if their own economies are to grow, if they are to realize the objective of healthy, wanted children. Regrettably, the response of our government has been to steadily diminish such support. Where once we contributed 2.7% of our gross national product, we now contribute one-tenth that amount. As a former AID administrator has observed, we spend more money on dog food than we do on the 600 million people in the world who are malnourished. More important, an ever increasing proportion of the assistance we do provide is for "security assistance," most of which is armament.

What has all this to do with health and medicine? A very great deal. Unrestrained population growth is the most important underlying problem of every developing country. In the less developed countries, 40% are

now unemployed or underemployed. In the next 20 years, 700 million new jobs will need to be created to employ them and the children already born who will be entering the work force. This is more jobs than exist in the whole of the entire western world. Yet, even today, contraception is available and used by only one in five married couples in the developing world - in major part because such contraceptives are unavailable to them. At the same time, a host of parasitic diseases imposes on entire populations a burden of unprecedented magnitude, important enough in terms of death, even more important because most are chronic, debilitating, often incapacitating in character. For those afflicted, productivity is seriously compromised. How effectively do you function with a temperature of 40°C. or with protracted diarrhea? Because most of the diseases are of little consequence to the industrialized countries, little support is given for research on what numerically are the world's most serious illnesses.

The problems are forbidding - indeed so overwhelming that you must wonder what possible contribution you as an individual, or even a group of you could make. I would submit, a very great deal. The practice of medicine, in this country as in other countries, has traditionally concerned itself with healing the sick. Its base has been the hospital and the clinic. Few resources and fewer still of our best physicians have been concerned with the community at large - in applying our best skills to the prevention of illness. Physicians concerned with the traditional practice of medicine are in growing supply in this country. Surprisingly, some developing countries - Mexico and India, to cite two - actually have a surplus of physicians engaged in the practice of therapeutic medicine.

What is lacking in this country, and in developing countries as well, are physicians capable of and oriented to providing care to a community at large - to organize and to administer the application of preventive services whether they be prevention of illnesses or prevention of unwanted births. To do so well requires the best skills of medicine but, in particular, physicians who have some understanding of agriculture and food production and a knowledge of politics, management and behavioral science as well. It's a different kind of medical practice than that to which you will be exposed in a traditional educational setting, but it is no less challenging and exciting.

To illustrate for you the difference which a few people can make, I cite the smallpox eradication program. In just over 10 years, a disease which afflicted 10 to 15 million persons each year and killed more than two million was eradicated. A prevalent belief is that this was achieved with all but unlimited resources and thousands, if not tens of thousands, of international staff. Not at all. Our headquarters staff, at its peak, numbered four physicians, two administrators and three secretaries. In the field, at any given time, we never had more than 100 international staff. The achievement belonged to national health personnel - the <u>total</u> cost was less than the annual budget of the Johns Hopkins Hospital.

Truly, the international challenge is formidable and increasing logarithmically. The developing countries, lacking physical resources and research capacity, cannot solve them alone; nor will they be solved by a few shiploads of armaments or the airlift of a few hundred thousand

tons of food; nor will a handful of narrowly focused experts accomplish much whether assigned for a few months or a few years. Rather, it will require patience, cooperation among all of us, a sustained commitment and an appreciation that we are all of one species inhabiting one globe which has finite resources. The greatest and most urgent challenges are in the developing world, but there are parallels here as well - care of the elderly, the provision of affordable health care, problems in preventing as contrasted to curing disease. A new era is ahead which requires a new generation of physicians whose concerns are as much the community as the individual, whose skills and interests extend beyond the diagnosis and reparative procedures necessary to deal with an illness or defect already acquired.

Charles Schultz, in his inimicable cartoon strip, summed up the situation succinctly when Lucy in her role as psychiatrist pointed out to Charlie Brown that life is like a great ocean liner. Some passengers place their deck chairs so as to look ahead to see where they are going and some so that they can view where they have been. She asked Charlie which type he was. He said that he hadn't managed to get his chair untangled yet. The next few years for you provide that time. Will you be looking to the past for your model, endeavoring to practice medicine as it was practiced in the earlier years of this century or looking to a future in which the community, both domestic and global, is the provenance of the modern physician?

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