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Reflections on the Relevance of Graduate Medical Education in the U.S. to Developing Countries

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As you will note from my title, I am not now in medical school administration nor have I been, except for four years as a consumer. However, from the Johns Hopkins School of Hygiene and Public Health, we annually grant graduate degrees to 130 to 140 physicians of whom about one-third are foreign medical graduates. Parenthetically, more than 90% of them return to their home countries. Moreover, I devoted the best part of 11 years to the World Health Organization endeavoring to implement projects in some 50 countries. My staff was comprised of physicians from more than 70 countries - many from the United States. Although based in Geneva, some two-thirds of my time was spent outside of Geneva, almost all of that time in developing countries. There was yet another interesting phenomenon which occurred over time which permitted me to obtain a somewhat different perspective than most. Because I was with WHO and paid a salary to which all countries contributed a part, I gradually ceased to bear the label "American" and so was party to many discussions that my more transient colleagues were not - about America, Americans and American programs.

It is important to note at the outset that the physician in the developing countries plays a far more important role in the shaping of health policy - indeed all government policy - than do the physicians in the industrialized countries. As in the United States, say 50 or 100 years ago, physicians constitute a disproportionately large percentage of those with any post-secondary education. Not surprisingly, the proportionate influence of those who are physicians is generally inversely related to the degree of development in the country concerned. Those in sub-Saharan Africa, for example, are scattered through many branches of government and some indeed are heads of state. Less recognized is the fact that personal physicians to the heads of state not infrequently play a less visible, but very key role in shaping health policy, indeed all government policy. In the so-called Middle Tier countries, such as the Philippines or Brazil, for example, the role of the physicians tends to be more that for which he has been trained but even in these countries, those who are physicians are generally more prominent and influential in shaping policy than in the United States.

Among the physicians in these countries, those who have had graduate study in respected institutions in the developed countries are notably more prominent and more influential. In part, but only in part, this reflects a selection process which identifies the more competent to undertake such study. Many, however, are selected because of nepotism or political favor. The importance ascribed to such training is apparent in calling cards and in signs over office doors in which the degree

is shown and the university after it in parentheses, say M.B.B.S., Oxford, or M.P.H., Johns Hopkins. Resumes prominently identify participation in courses, however brief, in the industrialized world and a certificate from such an institution for whatever course, however inconsequential, is almost invariably affixed prominently to an office wall. Graduate medical or health training in America is especially valued. I sense that few American medical educators even begin to comprehend just how greatly valued (indeed perhaps overvalued) is the commodity of American medical and health education. A curious and surprising episode for me occurred just five years ago as we were leaving Switzerland. A Swiss colleague joyously informed me that her son had been accepted to get his B.T.A. I hadn't the vaguest notion what a B.T.A. was and bluntly expressed my surprise. She was equally taken aback that after 10 years in Switzerland, I didn't know the term. Quite simply, it stood for "Been to America." The credentials of having had some American graduate training in medicine, even among Swiss, is viewed as important to the advancement of a career. I would remind you that in the hey day of French and German medicine, Americans did the same.

I have perhaps belabored a point unduly. However, I know only too well that few American medical educators comprehend the importance attached to graduate medical training in America. But this perhaps is not surprising because those concerned with shaping our foreign policy, by their deeds at least, don't appreciate this either. Conversely, Eastern European countries annually provide many thousands of scholarships with stipends for medical education to those from developing countries. They seem to appreciate better than we that in terms of the crass application of political influence and power, this program could be of important long-term value in fostering their interests.

Of those educated in America, what can be said of the impact on the health care system? The results are highly variable. One must differentiate between those who have received clinical training, those who have received training in research methodology and those who have received training in public health. The first two groups constitute the vast majority. In some aspects of medicine and medical practice, their impact on health care has been positive. Medical schools have proliferated in the developing world over recent years and the number of secondary and tertiary care centers likewise. There is no question but that many have endeavored to teach and to practice a standard of medicine comparable to that to which they have been exposed - and the standard may be high. For the comparative few in the developing world who have access to curative care/and the even fewer who have access to such care in a tertiary care setting which is even modestly equipped with drugs and instrumentation, the standard of health of those few individuals is good. However, there is a substantial gap between the quality, quantity and diversity of drugs and instrumentation available in the industrialized world in which they have been and are being educated and that available to them in their own developing countries. The acute and increasing shortages of foreign exchange being experienced throughout the developing world and the necessary preferential use of such funds to support production of exportable commodities is resulting, in most countries, in a gap progressing to a gulf - even an unbridgeable chasm of differences. The result among those endeavoring to practice the quality of curative

medicine to which they have been exposed is increasing frustration and an effort to emigrate, by whatever means possible. For those trained in research, the prospects are more dismal. The number of centers in developing countries which are even modestly supported, let alone equipped for comparatively elementary biomedical research, numbers not more than a handful. And need I point out that with the increasingly sophisticated instrumentation required to conduct effective studies, even those few are becoming less relevant. WHO, with modest resources, is endeavoring to provide support for research on health problems relevant to the developing countries and additional support is provided through bilateral assistance but the amounts are meager by any standard. Moreover, little of the laboratory research can be undertaken in the developing countries. Government salaries do not permit most to work full-time; instrumentation is meager and maintainance is a nightmare at best, if indeed possible in many areas.

For the vast majority of those living in the developing world, standards of curative medicine practiced in the industrialized world is neither available now nor is it likely to be in the foreseeable future. The only practicable answer is for far simpler preventive measures or curative measures which can be simply and widely applied. Except in schools of public health and a very few medical schools, education which addresses this reality is simply not available. The consequences of this may be illustrated by two brief vignettes. In one Asian country, which was planning a national program of immunization, the professional medical societies adamantly insisted that only physicians could administer the vaccines - never mind that there were but few physicians, almost all of whom were in private practice and in the major cities. Moreover, the vaccination schedule which they insisted upon was that set forth in the Red Book of the American Academy of Pediatrics - a schedule which called for more than 10 separate visits when, in that country with the resources available, children under two would be lucky to be reached twice by any vaccination program. So successful was the medical establishment that the program was blocked for more than two years - clearly an illustration of an inappropriate application of practice for the industrialized world. In an African country which I visited, I met a dedicated, well-meaning American colleague and his national counterpart who had just established the country's first pediatric cardiology center - needless to say, in the capital city. As they proudly noted, they, with a staff of nurses and clerks, were seeking as many as 10 children in a day. What were they doing? Primarily diagnostic cardiology - an intellectually stimulating exercise but of what relevance when fully 40% of the children born in that country died by the age of 5 as a result of infection and malnutrition? Centers of excellence in curative medicine <u>are</u> needed to foster excellence in medicine in every country - the important question is what degree of sophistication is required and how much should be allocated to their support.

Today, the clarion call is for primary health care - Health for All in the Year 2000 - to provide to the vast numbers living in rural areas and urban slums, at least the most elemental components of preventive and therapeutic interventions. There are those who now naively point out that family medicine residencies are now more popular and, indeed, ideal for those coming to the U.S. for graduate medical education. The U.S.

practice of family or community medicine, however, is orders of magnitude different from that in developing countries. Here, there is a structure for transport, drug distribution, permanent health facilities and a whole range of supporting services. In contrast, a recent AID analysis of 52 primary health care programs in developing countries notes as follows: "Management problems are the most pervasive and serious cause of the implementation difficulties encountered by projects. Once health workers have been deployed and require support, serious problems arise in managing the project. Specifically, these are problems of logistics, transportation, supervision and collection and use of information." How many family practice programs in medical schools or any other program in a medical center deals with such esoteric subjects as personnel management, program planning, the establishment and maintainance of a drug distribution system, or a motor pool, techniques for epidemiological surveillance and simple sample survey techniques. None - so far as I know. They are deemed of no relevance to the practice of U.S. medicine and indeed they are right in most instances. Yet these are the essential keys to the implementation of meaningful health care programs throughout the developing world. Can such activities be executed by non-medical personnel? In theory - yes, most can but, in practice, it is the physician, as program director, who directly oversee these activities - if the physicians do not know what to do or how to do it, such activities are usually ignored or badly executed.

It is all too apparent that much of graduate medical education in the U.S. is of progressively less relevance in the short or medium term to health care in the developing countries, except in a very few countries with suitable curative facilities. But physicians from around the world are accepted by medical centers throughout the country with little thought given by any on the faculty or teaching staff as to what could most greatly benefit these individuals when they return home. And little more thought is given to this by agencies supporting the students. Indeed, I suspect at most centers that few have more than the most superficial knowledge of the realities of health or medical practice in these countries. The result is too frequently a highly but inappropriately trained individual who has no hope of practicing those skills which he has learned. Should we be surprised that his response is to seek to emigrate to a country where he can practice those skills.

No medical center without a plastic surgery service would admit residents in plastic surgery. It would be absurd. No less absurd is the decision to admit, say, a student or resident from Nepal or Ethiopia, for example, and to provide a medical education which depends heavily on drugs and instrumentation which he will never see again.

What is the solution? Graduate medical education in the United States is recognizably as good as there is in the world. There is a demand for such education in all countries. Indeed, I believe, graduate medical institutions in this country could and should play a vital role in improving health care and education throughout the world. It's not only a moral obligation; there are implicit, practical political considerations better approached by Eastern Europe than by our own national policies. Moreover, in such areas as program planning methodology, in management, in epidemiology, we have a great deal to offer which is no where else available.

It seems to me, however, that such education should take place in centers where there is knowledge and current expertise regarding the developing countries concerned and where there is strength, not only in clinical medicine but in preventive medicine and public health as well which is relevant to the developing countries. Do such centers now exist? Very few and they are becoming fewer in number every year. There is no national policy and no commitment to sustain the educational programs in international medicine. In fact, AID has what amounts to a converse policy of diminishing domestic academic support for educational programs in international health based in academic settings. The problem deserves urgent review and reconsideration unless we want to make the conscious decision to return to the isolationist policies of 50 years ago. The only difficulty with that policy is that we, as a nation, are now profoundly more dependent than we have ever been on the developing world for raw materials and for export earnings and far more concerned than we have ever been with international political stability. Academic excellence in international medicine, I believe, is of fundamental importance to our own well-being, whatever our humanitarian concerns may be. It's time, however, that we faced the issues consciously and deliberately and shaped a program. The present non-program, non-policy is not tolerable.