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ROLE OF THE U.S. IN THE GLOBAL RESPONSE TO EMERGING INFECTIONS

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The problems we face in devising strategies to cope with new or emerging infections are quite as complex as the threats posed by the agents themselves. I cannot visualize a single magic bullet or a simple straightforward blueprint as an adequate approach. This has been well and amply explicated by previous speakers. There is, rather, more fundamental groundwork to be laid and to do so will require a number of opportunistic initiates.

The underlying problem was well characterized by the Committee on Emerging Microbial Threats of the Institute of Medicine. They pointed out that beginning in the 1970's and continuing into the 1980's, attention previously given to infectious diseases by public health officials, physicians and researchers began to wane with a shift in focus to chronic, degenerative diseases.

As you know, Departments of Microbiology atrophied, training programs in clinical infectious disease shrunk or vanished, vaccine research and development languished and interest in clinical tropical medicine all but disappeared. Activities at the Centers for Disease Control, NIH and Defense Department installations struggled on

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but at support levels which were, at best, eroded by inflation and, in many instances, sharply constricted in absolute terms.

On the international level, the picture was a bit brighter as a result of special initiatives in tropical disease research, diarrheal disease control and immunization. However, each of those programs has labored against a broadly-based, all but ideological assault on so-called vertical or targeted programs. The savants railed against such defined programs as being counterproductive to the development of the basic health services and without basic health services, there could be realization of that ill-defined nirvana -- called "Health for All in the Year 2000." Not, of course, that they offered an alternative blueprint. They served only to criticize. WHO divisions and units dealing with such as the viral diseases, tuberculosis, leprosy and other infectious agents steadily diminished in size and importance and in many regional offices, the communicable diseases as a group were offered the responsibility of a single, individual. For the African Region, for example, there was for many years only one advisor for <u>all</u> communicable disease activities throughout the whole of the Region.

Disinterest in the infectious diseases in the U.S. was echoed throughout other industrialized countries and in their foreign assistance programs in which even now one is pleasantly surprised, even astonished, to discover <u>anyone</u> with professional competence in dealing with infectious diseases, never mind that such diseases continue to represent the greatest threat to the health of Third World populations. And, for the

sake of completeness, I would note that the record of the philanthropic foundations has hardly been such as to inspire one.

In a word, complacency in the industrialized world -- inevitably and tragically echoed throughout the Third World -- has left us with an infrastructure of institutions and activities which is deplorable at best and a disastrous dearth of expertise in the infectious diseases and especially tropical medicine.

Indicative of that complacency was the recent dramatic resurgence of measles in the United States. All manner of explanations have been offered as to the reasons for the resurgence -- ignorant, irresponsible parents who do not appreciate the need for immunization, lack of funds to provide adequate facilities for vaccine administration, inconvenient hours of clinic operation and a whole array of other reasons. All of these explanations undoubtedly have some validity. However, what we are discovering, in fact, is that the burden of the problem rests with the health care providers themselves who accord immunization so little priority in patient care that they fail to immunize children when they should. Two of the country's largest and generally best regarded HMOs report, with some embarrassment, immunization levels among two year-olds of 70 percent. Studies in inner cities reveal that if children had been appropriately vaccinated whenever seen, levels of coverage would be in the range of 80 to 90 percent even if nothing else were done. These observations speak volumes about the current complacency and perceptions about the infectious diseases among our medical colleagues.

To create the complex infrastructure which is needed to properly address the problem of emerging infections will not be an easy task. It demands a great deal more than an augmented research grants portfolio, a few training programs, a laboratory or two or a dollop of international interest.

Our first challenge is to make a far broader public and professional audience aware of this veneer which exists to divide mankind from a wide variety of potentially devastating infectious diseases. Accordingly, after the 1989 conference on emerging infections, it was decided to fund an in-depth review of the problem by a committee of the Institute of Medicine. Their report, as you know, was published last year. A number of symposia such as this have subsequently been held and articles are now appearing in the public press. The challenge,although still recognized by far too few, is perceptibly gaining in popular credence abetted certainly by the Hanta virus epidemic this year and the emergence of the new cholera strain in Asia. We must continue our efforts to educate and inform.

The report of the IOM, as you know, offers a substantial number of recommendations. A greatly strengthened surveillance system both nationally and internationally, is identified as the foundation stone. Other components include a strengthened public health infrastructure, training programs in epidemiology, microbiology, infectious diseases and entomology, a strengthened research infrastructure in microbiology and immunology, the development of an integrated plan for vaccine

research and development, and number of others. I am happy to say that work in a number of these areas has begun or is planned and more can be anticipated.

An important opportunity to address certain of these needs has arisen within the context of the President's immunization initiative which, as you know, has broad Congressional and public support as well. Increasing vaccination protection is certainly a primary thrust of this initiative but the reason for doing so is to prevent disease. We have tended to forget this. Thus, it has now been decided that surveillance for all vaccine preventable illnesses will be undertaken as a matter of priority and added surveillance staff will be provided to all states. Complementary research programs will facilitate diagnostic confirmation. Also provided for in the program is staff in support of poliomyelitis surveillance in other parts of the world as a component of polio eradication. As any of you who have served in the field know well, competently conducted surveillance activities, whatever their purpose, inevitably bright to light any number of other challenging disease problems. Strengthening of surveillance is thus an important more broad-based step in rebuilding a needed foundation. Increased funds are also being provided for both basic and applied research on vaccines both at NIH and CDC. Finally, a new Subcommittee of the National Vaccine Advisory Committee is being constituted under Dr. Barry Bloom's leadership to explore the complex array of issues in developing, producing and applying new vaccines and multivalent antigen preparations. A number of these issues include those raised by the IOM Committee.

At the global level, discussion are actively in progress to restructure and strengthen the immunization program in all its aspects of management, surveillance, research, development, production and application. I had hoped I might say something of this effort today but, in fact, key discussions are still in progress.

CDC, under Jim Hughes' guidance and with a distinguished external committee, has completed a first phase planning effort specifically addressing the salient issues. Initial funding to begin certain of these activities will be available under the FY '94 budget and we are hopeful that funding can be significantly augmented in the FY '95 budget.

I would also note, in particular, that the President's plan for Health Care Reform includes a specific and indeed substantial sum of money which is identified specifically for strengthening the health care infrastructure at state and local levels and a further significant sum has been identified for both basic and applied research in prevention -- a significant part of which, not surprisingly, is directed to vaccination. Moreover, the plan for health care reform places special emphasis on effective measures for concurrent recording and compilation of data pertaining to disease occurrence -- in brief, surveillance.

However, I regard these efforts as only beginning steps. I believe we will need a broader coordinate interagency effort involving the Departments of Defense, State and

Agriculture, as well as Health and Human Services. We have already had preliminary discussions with the Office of Science and Technology Policy and expect to continue and broaden these discussions later this year.

This will not suffice, of course. We need the active participation of other countries and the World Health Organization. Except in immunization I can offer little evidence of prospective progress so far in stimulating either interest or activity in other parts of the world. This will take time and with a WHO crippled by regrettable leadership, the task will not be easy.

In brief, we have much to do but a beginning has been made. It will require time as well as imaginative and collaborative efforts by governments, academia, industry and international bodies. Each of us has a role to play and I do count on working with you as we progress.