

Disease and diplomacy: Foreign Policy and Meeting the EID Challenge

National Foreign Affairs Training Center, Arlington Virginia
31 October 1997

The challenge of the emerging infectious diseases underscores uniquely the fact that our own national future is increasingly and inextricably interwoven with that of other countries as viral DNA is interwoven with the mammalian host cell. More than this, we now recognize the need for a range of responses which transcend "simple" scientific solutions alone. Thus, to me, this is an especially welcome meeting and the initiative of the Department of State in convening it is to be commended.

As a first principle, I believe there is a need to broaden our thinking about new and emerging infections to embrace the issues and challenges associated with biological terrorism, i.e. the deliberate release of exotic organisms for ulterior purposes contrasted to their natural emergence. There is a very broad overlap in these agendas extending from surveillance, detection and investigative activities to basic research and training needs as well as cooperative efforts with other countries. To date, the subject of biological terrorism has been shunned by much of the biological community, generally disregarded or denied by civilian health agencies and still not seriously addressed in most of government. Indeed, in the many NBC meetings I have attended over the past 7 years, I have been dismayed by the paucity of biologists and the surprisingly prevalent misconception that there are few distinctions in policy to be drawn between chemical and biological threats when, in fact, nothing could be further from the truth..

In reflecting on the priorities for diplomacy and U.S. foreign policy in this generic area, I identify three subjects which I would deem to be of special importance. First is the need for development of information networks; second is the importance of building or strengthening primary data sources; and ; three, the need for strengthening response

mechanisms to deal with problems when detected. These are all generic and structural needs. There are, in addition, diplomatic and foreign policy issues relevant to the broader problems underlying the rise in emergent diseases-- population, globalization of the food supply, refugees, social equity, immigrants and others. However, I focus on the three noted which address the emergent disease problems as a first order issue. None of these are yet receiving adequate attention and diplomacy and foreign policy initiatives will be key to their effective implementation

Our ability to cope with the challenge of new and emerging infections will be directly proportional to the quality and timeliness of the information available. To you who have had no cause to engage the world of global disease surveillance, you cannot possibly imagine just how little we know about human health around the world or how incredibly insensitive are the antennae which we need to detect and diagnose new or old diseases. In illustration, I think it is reasonable, in retrospect, to speculate that AIDS deaths were occurring in significant numbers in Africa nearly 20 years before the disease was first identified in the U.S. in 1981. Smallpox offers another obvious illustration. It was one of five so-called quarantinable diseases which, by international treaty, were supposed to be immediately reported to WHO/Geneva and all other countries so informed so that they might take precautions. It was a disease with a highly visible, distinctive rash. You couldn't miss it. Through surveys, we were eventually able to estimate the actual incidence of smallpox in 1967 when global eradication began. At best, less than 1 in 100 cases was being reported. Clearly, first priority has to be given to the development of information/surveillance systems

A central need for accomplishing this will be strong, effective leadership at an international organization level to orchestrate appropriate programs. I use the word orchestrate advisedly because one must anticipate many possible independent and independently funded initiatives at many different levels and in many different countries.

Such diversity of responses and participation is to be welcomed but only with harmonization and collaborative planning will the needed products emerge. I see no agency able to accomplish this other than WHO. Speaking from personal experience, I am convinced that respected leadership in an international organization brings more access, broader cooperation, openness and more political support than can be realized in any national agency, however respected, and here I contrast my WHO experience with experiences at CDC and with AID. It seems to me that the U.S. will itself need to take a proactive role to actively encourage strong WHO leadership and to encourage full participation and openness of other governments. The U.S. will need to provide to WHO a share of the requisite funds as well as to loan at least some of the needed personnel. How all of this is done needs to be carefully weighed because the efficacy of the operation will be directly proportional to the extent that this initiative is accepted by other countries as an international one, rather than an American dominated or directed operation.

The essential principle of this information effort should be the freest possible, open exchange of information between international agencies, health ministries, clinical centers and research units. Given the capabilities intrinsic to the Internet, the established linkages between WHO reference Centers, the bridges of communication already developed by the US National Library of Medicine, as well as others, I believe a new paradigm is possible although it will not develop without careful nurturing.

All of this presupposes that essentially all such information will be in the public sector. While I know this concerns many of our colleagues in the intelligence community, I believe one can confidently state that given the primitive state of surveillance today, it is essential to draw on many and diverse sources and those contributions can only be assured if the sources of information perceive themselves to be full partners and beneficiaries of the system.

My second priority relates to the need for strengthening of primary detection/information sources, especially in the third world to assure the earliest possible detection of cases and deaths and to assure that they are adequately investigated and evaluated in a timely fashion. Outside of the industrialized countries, there are a number of public and private clinical centers, some national laboratories, a network of WHO reference centers, NIH-supported research initiative, USNavy and Army research units, CDC affiliated epidemiological programs and others. Unfortunately, most are only marginally staffed; where funded for research, the agendas are often narrowly defined; and between centers, even in the same country, there is often little to no communication.

To mobilize these resources for broader purposes is critical for they represent the front line, the antennae of the system. One possible approach for so doing would be to sponsor through perhaps the WHO-World Bank-UNDP a global inventory/needs assessment/plan to foster more comprehensive centers through training, provision of equipment, funding of joint research and development efforts. Axiomatic in such an initiative would be the objective of drawing as many centers as possible into cooperative international ventures in which scientists are regularly exchanged and joint research efforts are supported. As a practical matter, such activities could play a role in helping to deal with the vexing problems of detection and verification of surreptitious biological weapons activities.

Support for the identified initiatives could derive independently from a variety of national and international resources with different countries and agencies acting to participate in ways in which they felt most comfortable.

Finally, I refer to the need for building a response capability -- an immediately available team of experts who can respond promptly, with a minimum of fanfare and publicity to work with national and local authorities to deal with problems. This was the

foundation upon which our own national surveillance program was built. In the 1950s, the Epidemic Intelligence Service was created at CDC whose function it was to be ever on call to respond within 24 hours to any request for assistance from a state health officer. It was, in fact, created as a special unit to counter threats of possible biological weapons use in the US during the Korean War period. Until this time, the states, as sovereign entities seldom called on federal expertise for assistance in dealing with epidemic disease problems. There was, in fact, no single agency charged with such a responsibility. In consequence, many states endeavored inadequately to deal with problems beyond their own expertise and such information as they did develop reached the professional and public health community at large only after considerable delays if it surfaced at all. It was surprising what a transformation occurred when health officials realized that expert help was only a phone call away and that that assistance was in the form of support to their efforts and not an annexation of authority.

CDC today provides substantial epidemic assistance abroad as well as in the U.S. and the response and cooperation with governments across the world have materially improved. This sort of function needs to be greatly strengthened; there is a need as well to seek international partners to support this effort; and again, we need to look to WHO to play a needed orchestrating role in order to draw on expertise from many parts of the world.

In brief, I have outlined three basic strategic thrusts to deal with the new and emerging infections: 1) Development and strengthening of information networks; building or strengthening of primary data sources; and 3) the need for more comprehensive systems for immediate response to deal with suspected problems. The important themes are a new thrust and a different approach in internationalization of our initiatives -- conceptualized as orchestration rather than direction; essentially complete openness of data; and far more extensive scientific partnerships.