OVERVIEW: SURVEILLANCE AND SENTINEL SYSTEMS

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The first day of the conference had three dominant themes. One was the concern about emergent pathogens, whether they are domestic, exotic, or foreign. The second was the need for funding. The third was to alert politicians at local, state, federal, and international levels about the real concern of emergent pathogens; we saw and heard examples from the municipal level, that is, New York City, from state representatives, and from representatives from the US federal government, that is, representatives of the Food and Drug Administration and the Centers for Disease Control and Prevention (CDC).

On the second day, the concern was surveillance and sentinel systems. The same models were used: local, state, federal, and international models were represented by the city of New York; the states of New York, New Jersey, and Connecticut; CDC; and the World Health Organization, respectively. Private and nongovernmental agencies were represented by Rockefeller University and New York Hospital, respectively.

The discussion began with an overview of a surveillance system, ProMED (Program for Monitoring Emerging Diseases), which was developed in 1993 by the Federation of American Scientists in collaboration with the World Health Organization. The purpose of ProMED is to identify responsible people throughout the world who agree to act as sentinels and report findings to their central offices. ProMED came on line as an E-mail system in August 1994. The number of subscribers per month has increased almost logarithmically. On the evening before my presentation at the conference, 200 more people had signed up.

ProMED participants come from all countries. Subscribers come from areas of several continents: from the field, in the jungles, in the plains, in the cities, in

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the ghettos; if any of them identify something new and strange, they report it. On the eve of the conference, about 85 countries were represented in the program; at present (June 1998), there are 15,000 participants from 150 countries.

Various topics are covered in ProMED discussion groups. Over the 10 months preceding the conference on Emerging Infectious Diseases in June 1995, literally hundreds of different diseases or disease agents were discussed on ProMED, such as Creutzfeldt-Jakob disease and other spongiform encephalopathies; viruses, including herpesviruses, arboviruses, hantavirus, and bunyaviruses; bacterial and fungal diseases, including the plague that occurred in India in autumn 1994; and parasitic and arthropod diseases such as cryptosporidiosis and onchocerca. Publications and reviews are also offered. ProMED provides *Morbidity and Mortality Weekly Report* downloading each week; it alerts health care workers to events such as the publication of CDC's *New Emerging Infections Journal* and reviews books such as Laurie Garrett's *The Coming Plague*.

In addition, ProMED provides interchange, queries, questions, and concerns about strange diseases not ordinarily covered in the *New England Journal of Medicine* or the *New York Times*, such as a disease found in Australia that is blinding kangaroos, the bird disease of Mexico that is killing hundreds of thousands of birds, and other exotic zoonotic diseases that never reach the realm of public recognition. Such diseases, however, are reported by this international sentinel system, which is apolitical and does not have the bureaucracy that often makes sentinel systems difficult to effect in government agencies.

Further information about ProMED can be obtained from <http://www.fas.org/promed/> on the Internet.