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The AIDS Issue

Plagues are identified with impoverished nations and past centuries, not with modern civilization. "It can't happen here, and it can't happen now" is the reaction of industrialized societies as a 20th-century epidemic of a fatal disease attacks their countries. The unthinkable is happening. In this issue of *Science*, put together with the help of many but especially senior editor Ruth Kulstad, a series of articles defines the enormity of the problem, making clear that any solution will demand scientific know-how, stark realism, and compassionate judgment.

The articles by Fauci, Price *et al.*, and Curran *et al.* establish some immediate boundaries. First, a long period of virus incubation before visible signs of the disease appear severely complicates efforts to contain the epidemic. The serious mental disturbances that arise in many cases add to the difficulties of coping with the disease. While the search for a cure goes on, the spread of the epidemic may be controlled to some extent by legal and educational approaches. The difficulty of educational persuasion is highlighted by Fineberg. Although education may already have convinced many of the groups at greatest risk of the facts, the drastic changes in behavior needed to modify statistics significantly have not occurred. Changing from 50 sexual partners to monogamy affects the probability of infection dramatically, but switching to five partners produces only marginal changes in risk. Drug users learn about the dangers of sharing needles but continue to share them. Knowledge does not guarantee motivation to change in the face of powerful biological urges.

The international aspects of the disease, reviewed by Piot *et al.*, deserve attention, because they throw light on the relation between different patterns of behavior and infection in different countries. For example, in Africa, heterosexual activity is the dominant mode of transmission whereas homosexual and drug-related activities continue to be important in transmission of the disease in the United States.

Legal and ethical problems that must be confronted are discussed by Dickens and by Walters. For instance, should testing be mandatory? Some emphatically say "No." But what is a hospital to do if a surgical patient refuses testing? There are obligations to employees as well as to patients. Should confidentiality be preserved at any cost? What is the responsibility of a physician in informing spouses and children, to say nothing of others who might become infected?

The incredible expense of existing AIDS cases and those predicted for the near future (estimated at \$22 billion for the United States by Bloom and Carliner in a conservative analysis) will certainly exacerbate the emotions of the debate. Is it the responsibility of society to pay the medical costs of those who are warned yet continue dangerous practices? Who is responsible for children who have contracted AIDS? For those who contract it from contaminated blood, who should be held responsible financially—hospitals, insurance companies, the government? Can they sue?

The legal difficulties outlined by Dickens clearly show that an internally consistent plan has yet to be achieved in any country. Some Iron Curtain countries make it a crime for an infected individual to have intercourse without informing the partner. Other societies are reluctant to put any limits on groups which they feel are already suffering opprobrium for unconventional behavior.

An impressive feature of this collection of articles is how much one compartmentalized subject requires information from another. Thus, the promise of an educational campaign is shown to be inevitably intertwined with the scientific and legal aspects of the disease. The legal aspects are certainly intertwined with the expense of treating the disease and the political clout of the parties affected. Ethical solutions appropriate for one group may be totally inappropriate for another. The staggering expense of AIDS is sure to conflict with monetary demands for other social programs.

In a recent issue of *Science* (22 January, p. 375) the history of the syphilis epidemic was recounted. Many decisions made then, no doubt expedient at the time, do not appear justified today. Decisions today have to be made on the shifting sand of public emotion, if not hysteria, and changing scientific facts. Perhaps the question, "How will we look to future generations?" may be the best test for evaluating our current attitudes and decisions.

—DANIEL E. KOSHLAND, JR.