



## Vignettes: Comforts of Science

One way in which an increased knowledge of the nature of the physical and biological world can be of value to the individual citizen is through the conferring on him of an increased equanimity, an increased confidence in natural law and order. The well-being of an individual may be greatly impaired by his fear of the unknown, which may far exceed the fear that he would have of a known danger, which he might prepare to meet in a rational way.

—Linus Pauling, as quoted in *Linus Pauling in His Own Words: Selections from His Writings, Speeches, and Interviews* (Barbara Marinacci, Ed.; Simon and Schuster)

Friends, chemist friends, if someone comes before you verbalizing anxiety over a chemical in the environment, don't harden your hearts and assume a scientific, analytical stance. Open your hearts, think of one of your children waking at night from a nightmare of being run over by a locomotive. Would you tell him (or her), "Don't worry, the risk of you being bitten by a dog is greater"?

—Roald Hoffman, in *The Same and Not the Same* (Columbia University Press)

of up to 20 percent of the population have been reported. The development of a safe and effective plasma-based hepatitis B vaccine, available in the United States since 1982, was a major scientific breakthrough and constituted the discovery of the first effective anticancer vaccine. For several years, however, the vaccine was not widely used in mass-immunization campaigns; its exorbitant price, determined by the politics of commercial vaccine development and production, and a lack of commitment in some countries slowed its adoption.

*The War Against Hepatitis B* chronicles the efforts of a small group of scientists who formed the International Task Force on Hepatitis B Immunization to establish global immunization against the disease. The book uses information from a wide variety of sources. In addition to having full access to classified and confidential documents of the Task Force, Muraskin has drawn on interviews with Task Force members and representatives of governments, vaccine-producing companies, and international organizations.

The Task Force, a highly committed group with excellent scientific reputations, is presented as the driving force behind the integration of hepatitis B vaccines into international immunization schemes. Four major achievements of the group are presented: it was instrumental in drastically lowering the price of the vaccine; it helped establish hepatitis B as a top-priority issue on the global level; it stimulated large-scale production of hepatitis B vaccines by pharmaceutical companies; and it showed that developing countries can successfully carry out large-scale hepatitis immunization campaigns.

In this fascinating analysis of contempo-

rary international public health practice, Muraskin describes the competition, international politics, ideological conflicts, and internal tensions that the Task Force had to overcome in order to establish viable model immunization programs and finally to help integrate the vaccine into the World Health Organization's Expanded Programme on Immunization as the seventh childhood vaccine.

That politics and economics, not just a lack of scientific know-how, can impede the implementation of public health innovations will come as no surprise to anyone in the field. But rare are detailed case studies that are based on careful historiographical research. Its detailed analytical perspective is the main strength and contribution of *The War Against Hepatitis B*.

Two case studies of hepatitis B model projects, in Indonesia and in Thailand, provide valuable lessons about factors in the success and failure of national immunization campaigns, among them the international politics of vaccine technology transfer, the crucial importance of political support at the highest level, the role of interpersonal factors, and the need for cross-cultural sensitivity in negotiating model projects. The book also provides an interesting description of the complex relationship between the Task Force and the World Health Organization and of the turf wars over country activities and vaccine standards that had to be resolved.

Muraskin appropriately concludes that the war against hepatitis B and associated liver cancer is not yet won. But there have been major victories. The price per dose of the vaccine has been forced down from more than \$30 in the early '80s to 55¢ in

1993, with further decreases possible. In 1992, the World Health Assembly endorsed the goal of universal hepatitis B immunization by 1997. More than 50 countries have now adopted national policies of including vaccination against hepatitis B in their childhood immunization campaigns.

In times of emerging and resurgent infectious diseases, it becomes increasingly important to understand how public health strategies are negotiated at local and international levels. This well-researched study will be of value to anyone interested in the politics and economics of health care delivery, especially in developing countries.

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## Other Health Issues

**Infectious Diseases in an Age of Change.** The Impact of Human Ecology and Behavior on Disease Transmission. BERNARD ROIZMAN, Ed. National Academy Press, Washington, DC, 1995. xii, 256 pp., illus. \$44.95. From a colloquium, Washington, DC, Sept. 1993.

This volume brings together a set of status reports on diseases whose incidence has been changing or seems likely to do so as a result of identifiable social factors. The two opening chapters deal with the encroachment of Lyme disease in (mostly eastern U.S.) urban areas and the impact of day care and breastfeeding on cytomegalovirus infections in infants and children. The next three are concerned with cholera and other diarrheal diseases and dengue fever in developed and developing countries and with global patterns of the various types of hepatitis. Two other papers of international scope consider the implications of population migration in Africa, the Americas, and Southeast Asia for the spread of types 1 and 2 human immunodeficiency viruses and with the relation of malaria to genetic factors in persons of African descent. The evolution of drug-resistance is considered in papers on hospital-acquired infections and tuberculosis. Several papers are concerned with diseases that are or may be sexually transmitted, including HIV, papilloma virus, maternal and neonatal herpes simplex, and bacterial infections. The final two papers in the volume deal with matters of vaccination, in particular, progress toward vaccination against sexually transmitted bacterial infections. Several of the chapters have been updated since their original presentation, and each includes a one-paragraph summary and a reference list.

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