

The international vaccine scene

Vaccines: preventing disease and protecting health.

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INFECTIOUS AND COMMUNICABLE DISEASES account for a large burden of disease worldwide, causing the death of roughly a million people each month (WHO 2004). This book is about some of the ways in which this enormous problem is being addressed.

The book comprises a collection of papers from the global *Conference on vaccines, prevention, and public health* and is as much about public health thinking in communicable disease control as it is specifically about vaccines. Its contributors are practitioners in the field of immunisation and communicable disease control from all over the world.

The book is clearly set out in eight sections, with both an introductory summary, *Setting the stage*, and an *Epilogue* summary section. The specific sections cover *The present*, with summaries of measles, rubella and poliovirus control measures, as well as the case of yellow fever which is used as a warning about what can happen if we take our eyes off the public-health-control ball. This is followed by *The cutting edge*, covering the newest vaccines for *Haemophilus influenzae*, varicella (chicken pox), hepatitis A, and the two major bacterial infections — meningococcal and pneumococcal diseases. *The future* section covers prospects for vaccines to control a variety of infections, including the enteric diseases rotavirus, *Shigella* and typhoid; two major causes of cancer, *Helicobacter pylori* (gastric cancers and ulcers) and human papillomavirus (cervical cancer); hepatitis C; and two common causes of viral respiratory disease, influenza and respiratory syncytial virus (RSV). RSV is a good example of a common disease which carries a large burden of morbidity (Chin 2002) all over the world, especially among children, and yet few people have heard of it.

Then follows *The Quest*, which describes new generation vaccines for the major current causes of communicable disease morbidity and mortality, including tuberculosis (TB), dengue fever, malaria, and hookworm. This chapter also discusses the prospects for inactivated polio vaccines for use for outbreak management and containment purposes in the event of accidental or deliberate poliovirus release. New vaccines (oral, acellular, genetically engineered, DNA, conjugate, and others) are discussed in various places, but you have to read the entire book to find them all.

This leads neatly to the section on *Vaccines and bioterrorism* which summarises vaccine possibilities for the control of smallpox, anthrax and the viral haemorrhagic fevers. There are, however, several possible bacterial and viral bioterrorism agents not covered in this section — tularaemia and plague being common contenders — perhaps a sad omission.

There have been huge changes in vaccine types, schedules, and delivery modes, and the penultimate section, *Regulatory and safety issues*, sheds some interesting light on the views of vaccine providers, particularly governments and other public authorities, the (mainly private) vaccine producers, and vaccine recipients, with respect to the safety of vaccines. The consumer perspective is contributed by David Salisbury, the Principal Medical Officer for the UK Department of Health. Some legal aspects of vaccine safety are a welcome inclusion, although a chapter (conference paper) on legal and jurisdictional issues would not have gone amiss here.

The final section on *Vaccines, prevention and public health* addresses a number of important challenges, including the place for preventive programs, financing issues, and what might be needed if diseases are to be prevented or eradicated with vaccines.

The book lacks an index, making it difficult to follow some threads, such as the financing models and innovative vaccine ideas. Also missing from the book is a summary and discussion of the expanded program of immunisation (EPI),* a core feature of the world's immunisation strategy preventing millions of childhood deaths from communicable diseases every year. For students and practitioners needing general information about current vaccines in an Australian context, the current immunisation handbook (NHMRC 2003) contains all the information likely to be needed. For people needing insight into the ways people think about vaccines, vaccine development, and how vaccines contribute to public health control of communicable diseases, *Vaccines: preventing disease & protecting health* is a fascinating and useful book.

*A great deal of information about the EPI can be found at the UNICEF website at <http://www.unicef.org/>

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