

developing countries is thought provoking, and so is the paper on environmental standards at the workplace—and the options for setting standards in developing countries. The authors refer to the dilemma of proposing stricter environmental standards for developing countries, because of possible differences in the health status of the population in such countries, versus adopting some practical, achievable, less stringent standard which can be gradually raised. There is also a useful catalogue of vegetable dusts which cause lung disease in developing countries, a good classification of pesticides, and a debatable approach to medical surveillance for exposure to mineral dusts—which advocate medical examinations and chest radiology as a minimum for pneumoconiosis due to mineral dusts. The problem of acute pesticide poisoning and accidents at work in developing countries is highlighted, and these are clearly much bigger problems than in developed countries.

It is a fascinating book, well worth reading and definitely to be recommended as a standard text book for occupational health professionals in developing countries. It will also be an eye opener for occupational and public health physicians in developed countries with an interest in approaches to occupational health in the developing world.

T C AW
Occupational Medicine
University of Birmingham

Environmental Epidemiology: Public Health and Hazardous Wastes. The National Research Council. (Pp 282; £29.95.) Washington DC: National Academy Press, 1991. ISBN 0-309-04496-0.

This book was written by a committee on environmental epidemiology and as a report for the board on environmental studies and toxicology in the Commission on Life Sciences of the National Research Council. It defines environmental epidemiology as “the study of the effect on human health of physical, biologic, and chemical factors in the external environment, broadly conceived”. This area is an expanding field for which in 1987 the World Health Organization established a global environmental epidemiology network.

The committee was charged to review current knowledge of the human health effects caused by exposures to substances emanating from hazardous waste sites and to clarify and suggest how to improve the scientific bases for evaluating the effects of environmental pollution on public health, including specifically the conduct of health assessments at hazardous waste sites. This first report examines and evaluates the scientific literature, and develops recommendations about major data gaps that need to be remedied in order to advance the field. Despite repetition of some case histories and the difficulty for most readers of accessing the many unpublished cited reports, I found it particularly worthwhile reading. It focuses on one environmental health problem, develops a strategy for investigating and managing it, discusses policy issues, and ably demonstrates how environmental epidemiology can help to elucidate public concerns about possible health effects and the effectiveness of measures to mitigate them.

The committee concludes that despite the lack of adequate data with which to characterise the effects of hazardous wastes on public health in general, there is sufficient evidence that they have produced serious health effects in some populations. It notes too that identification, assessment, and ranking of hazardous wastes site exposures are at present inadequate, and that the overall impact on public health cannot be assessed.

A subsequent report will identify research opportunities and methodological issues, and will select and evaluate a sample of relevant non-peer-reviewed reports. I look forward to it and hope the committee will include with the case histories details of the environmental epidemiology methods used for their investigation and management. We all have much to learn.

ROBIN PHILIPP
Department of Epidemiology and
Public Health Medicine,
University of Bristol

Preventive Medicine: A Report of a Working Party of the Royal College of Physicians. (Pp 212; £10.) London: Royal College of Physicians, 1991. ISBN 1-873240-32-5.

Those who feel that preventive medicine is the domain of all health professionals will be pleased that the Royal College of Physicians has produced a timely and well written report on the subject. The views of a number of specialties including medicine, general practice, occupational medicine, and public health medicine were represented on the working party, which set out to provide objective guidance about the factual content of often controversial topics, and to assess the risks of different health problems and the cost-benefits of preventive programmes. Practical steps which can be adopted by people generally and by health professionals to improve prospects of good health are described. Each chapter deals with a specific topic or part of the life cycle: smoking, cancer, infectious disease, accidents, occupational disease, childhood, and later life.

Although the report does not cover new ground, I found it a useful summary of existing evidence, well illustrated with graphs and tables. The recommendations at the end of each chapter vary from the very practical (eg, how to give up smoking) to the rather all embracing type (eg, the need for better information systems). Some areas are not covered in any depth—screening in pregnancy, for example—but references are given to more detailed reviews. Other omissions, I feel, are less easily justified. Mental illness surely deserves to be included in such a review. I thought that the attitude to one or two areas where prevention is needed is rather dismissive. For example the widely recognised role of harm reduction in prevention of HIV is not emphasised and advocating condoms seems to be discouraged, without supporting evidence, because “compliance is usually poor, especially among those most at risk”.

Another omission which I feel deserves attention is the role of the clinician in referral and liaison with other agencies which have a

crucial role in prevention—local authority departments and voluntary agencies in particular. This has relevance for areas covered such as accident prevention and social contact in later life.

Despite the criticisms outlined, this book will be useful for all clinicians—both undergraduate and postgraduate. It will also be of interest to those whose work is mainly about prevention—public health physicians and health promotion officers.

C QUIGLEY
Department of Public Health Medicine
Trafford Health Authority
Manchester

Developments in Biological Standardization. Vol 73. Ed International Association for Biological Standardization (Pp 386; price not stated.) Basel: Karger, 1991. ISBN 3-8055-5457-5.

The mechanism of naturally acquired and vaccine induced immunity against *B pertussis* remains elusive despite an ever increasing volume of technical and epidemiological publications on this fascinating subject. The latest collection of papers can be found in *Developments in biological standardization*, vol 73, where the proceedings of a symposium held in Tokyo in September 1990 are reported. Four of the eight sections are devoted to laboratory aspects of pertussis such as the molecular biology and genetics of the organism, the biological standardisation of acellular vaccines, and the development of antibody assay systems. These are specialist papers without immediate epidemiological relevance, although the work may eventually lead to novel applications such as genetically engineered vaccines containing non-reactogenic pertussis toxin, or possibly live attenuated vaccines. An essential step in developing improved pertussis vaccines is to identify the important protective antigens and the mechanism by which they induce immunity. None of the animal work reported at the symposium sheds any real light on this problem or the reason why a serological correlate of protection has not been found in children vaccinated with acellular preparations. For the future, therefore, demonstration of efficacy in the field will continue to be essential for all new acellular preparations.

Although there is a section entitled “Clinical evaluation of vaccine efficacy” it contains little new information. Results from the post-trial follow up of children who took part in the Swedish efficacy trial in 1986 show that protection from acellular vaccines lasts for at least four years. However, more up to date results have now been published elsewhere. The two papers reporting the results of vaccine efficacy studies in Japan confirm earlier publications and illustrate the epidemiological problems inherent in trying to use routine surveillance data for such purposes. The difficulty in obtaining laboratory confirmation of cases, of ensuring unbiased reporting, and of identifying which acellular preparations have been used in the field raise doubts about the efficacy estimates presented and underline the importance of obtaining reliable efficacy data from