

## Notes and News

### LICENCE APPLICATION FOR PERTUSSIS VACCINE WITHDRAWN IN SWEDEN

LAST week Prof Hans Wigzell, Head of the National Bacteriology Laboratory in Stockholm, issued the following statement (the overall results of the trial to which he refers were published in *The Lancet* last year;<sup>1</sup> the infections were highlighted in a separate paper<sup>2</sup>):

"The National Bacteriological Laboratory now withdraws the application for licensing of a Japanese pertussis vaccine after consultations with the Division of Drugs, Board of Health and Welfare. The vaccine was studied in a large clinical trial of acellular pertussis vaccines which was finished in the autumn of 1987. The Division of Drugs judges that the efficacy of the vaccine may be lower than that of whole-cell vaccines. The uncertainty about a possible association with deaths due to serious bacterial infections, which occurred among vaccinated children, has also contributed to the recommendation made by the Division of Drugs of comparative trials between acellular pertussis vaccines and well-known whole-cell vaccines.

"Sweden needs a working pertussis vaccine and the National Bacteriological Laboratory intends to test possible vaccine candidates from different manufacturers within the next six months. Studies of large groups of children are needed to decide whether the new vaccines give equally good protection as whole-cell vaccines. Paediatricians and infectious disease physicians throughout Sweden will need to participate in the design and conduct of new trials of pertussis vaccines."

In this issue (p 96) Dr Patrick Olin, clinical coordinator for the Swedish ad hoc group for the study of pertussis vaccines, gives his reaction to this announcement. The question of serious bacterial infections was discussed by the Japanese workers Kimura and Kuno-Sakai in our correspondence columns.<sup>3</sup> Japan is the only country to use acellular vaccines routinely, but these researchers could find no evidence that age-specific mortality rates of sepsis and meningitis had increased after introduction of such vaccines. They concluded "Our epidemiological investigation nationwide in Japan suggests that a correlation between acellular pertussis vaccines and deaths from severe invasive bacterial infection is highly unlikely".

### WORLD-WIDE IMMUNISATION OF CHILDREN

THE World Health Organisation Expanded Programme on Immunisation (EPI), only 15 years since its inception, is regarded as a major public health success. Henderson and colleagues<sup>4</sup> report that 50% of children in 25 developing countries are getting a third dose of either poliomyelitis or diphtheria-pertussis-tetanus vaccines—a tenfold increase since the programme began. There is still room for improvement: Bangladesh and Ethiopia are among the 9 countries in which fewer than 10% of children have received a third dose of these vaccines; the level of measles immunisation (37%) is low; and only 19% of pregnant women have received tetanus toxoid. Further success of the EPI depends on external financial support—estimated at US\$600 million per year for the latter half of the 1990s—and there is optimism for the continuing availability of such funds. The EPI also needs to tackle other issues in the 1990s, such as the full use of existing vaccines, introduction of new or improved vaccines, and promotion of other primary health care practices.

1. Ad Hoc Group for the Study of Pertussis Vaccines. Placebo-controlled trial of two acellular pertussis vaccines in Sweden—protective efficacy and adverse effects. *Lancet* 1988; i: 955–60.

2. Storsaeter J, Olin P, Renemar B, et al. Mortality and morbidity from invasive bacterial infections during a clinical trial of acellular pertussis vaccines in Sweden. *Pediatr Infect Dis J* 1988; 7: 637–45.

3. Kimura M, Kuno-Sakai H. Acellular pertussis vaccines and fatal infections. *Lancet* 1988; i: 881–82.

4. Henderson RH, Keja J, Hayden G, Galazka A, Clements J, Chan C. Immunizing the children of the world: progress and prospects. *Bull WHO* 1988; 66: 535–43.

### CHILD HEALTH AND THE ENVIRONMENT

Is urbanisation good or bad for child health in developing countries? What is the environmental effect of large dams? How does deforestation increase leishmaniasis? Can families make a living out of rubbish dumps? These intriguing questions were raised at a meeting of the International Child Health Group (affiliated to the British Paediatric Association) in Leeds in November when doctors, engineers, and experts on waste gathered to discuss various effects of environmental change on child health in developing countries.

Prof David Bradley (London) suggested that people in most countries have benefited from "development", as shown by increased life expectancy due to reduced child mortality. Urbanisation seems to improve the health of most children, but for the very poor (such as those who live in a Bombay slum where there is one tap for 60 families) life in the city is associated with higher rates of diseases such as tuberculosis, worm infestations, and diarrhoea.

Dams and irrigation bring an increased risk of schistosomiasis; leishmaniasis increases as forests are cut down, since more people come into contact with the sandflies at the receding borders; traditional styles of rice cultivation keep disease vectors under some degree of control, whereas modern intensive styles allow them to congregate. These are just a few of the health effects of the ecological change which accompanies "development". New approaches should combine old ideas with technological advances—for example, a chemically impregnated bednet provides effective protection against malaria.

Prof Duncan Mara, a civil engineer, spoke on engineering better child health through improved water-supplies and sanitation. 80% of all mortality world wide is due to water-related or excreta-related disease. Water usage needs to be of the order of 30–50 litres per person per day to control diseases preventable by adequate washing, but the volume consumed falls drastically if water collection takes more than 30 minutes. One answer to sanitation in Africa is the low-cost ventilated improved privy (VIP), guaranteed free of flies and odours. What is still lacking is a delivery system to get it to all the rural areas.

Waste recycling might seem to be a topic more suited to the materialist culture of rich nations than the low-resource developing countries, but John Vogler, consultant in waste management, showed with many astonishing pictures how families can make a living off the huge rubbish tips which adjoin third-world cities. 6000 families organised in Mafia fashion by one "godfather" live off a waste dump in Mexico. Similar stories emerged from Colombia, Mombasa, Cairo, and Lagos. Vogler's role is to assist the poor to make a living out of recycling this waste—an objective not always shared by their governments. Suitable items for recycling are plastic bottles, broken cans, and even cigar containers—the ultimate symbol of capitalist repression. Are there some messages here for our own society—which has both a high unemployment rate and a low level of waste recycling?

### SAFETY OF FLUORESCENT LIGHTING

A 1982 report from Australia<sup>1</sup> prompted the UK's Health and Safety Executive (HSE) to fund an inquiry into the ultraviolet radiation levels people at home or at work might be exposed to from fluorescent lighting. The HSE adheres to limits laid down by the American Conference of Governmental Industrial Hygienists (ACGIH), and these were the standards against which the National Radiological Protection Board set their findings. The irradiances the NRPB found were never more than 9% (ultraviolet B) and 0.6% (ultraviolet A) of ACGIH limits.<sup>2</sup> The dangers of ultraviolet B in certain industrial uses are confirmed.

1. Beral V, Evans S, Shaw H, Milton G. Malignant melanoma and exposure to fluorescent lighting at work. *Lancet* 1982; ii: 290–92.

2. Whillock M, Clark IE, McKinlay AF, Todd CD, Mundy SJ. Ultraviolet radiation levels associated with the use of fluorescent general lighting, UV-A and UV-B lamps in the workplace and home (NRPB-R221). London: HM Stationery Office. 1988. Pp 27. £4. ISBN 0-859513068.