

# In this month's *Bulletin*

## Insect stowaways

Infectious agents are known for their blithe disrespect of national frontiers. Diseases such as malaria that use insects to extend their range are particularly hard to keep track of. And when the insects themselves are of the jet-setting variety, the problem takes on global proportions. Mosquitoes are a notorious example, particularly those that also carry malaria parasites, dengue or yellow fever viruses. But other disease-carrying insects have been found in aircraft, including tsetse flies (vectors of African trypanosomiasis or sleeping sickness) and sandflies (leishmaniasis). In a wide-ranging review of the problem, Gratz et al. (pp. 995–1004) describe how insects carrying malaria travel by commercial aircraft to temperate, otherwise malaria-free countries. “Airport malaria” is of growing concern to health authorities in many countries: between 1969 and 1999, 12 countries reported a total of 87 cases of malaria in people living in the vicinity of an airport (heading the list was France, with 26 cases, followed by Belgium, 16, and the United Kingdom, 14). Malaria-carrying mosquitoes may enter the passenger cabin before take-off or during stopovers or may survive the trip in the luggage hold. Whatever its mode of travel, imported malaria is frequently fatal, due to late diagnosis by physicians not primed to the risk of malaria. The cost of treating it can exceed US\$ 2700 per case, which far outweighs the cost of “disinsection” of aircraft with periodic application of a residual insecticide, such as permethrin, plus aerosol spraying either just before passengers board or just before take-off.

## Measuring health measures

Over the last four decades, health analysts have been devising indices or measures of health that aim to *summarize* a population's health. These efforts have produced a slew of “summary” health measures and related acronyms — from the QALE (quality-adjusted life expectancy) and ALE (active life expectancy) of the 1970s and 1980s, to the DFLE (disability-free life expectancy), DEFLE (dementia-free life expectancy), DALYs (disability-adjusted life years) and YHL (years of healthy life) of the early and mid-1990s, to the more recent HC (health capital) and DALE (disability-adjusted life expectancy). As Murray et al. point out (pp. 981–994), a valuable health measure is

one that can be used, among other things, to compare the levels of health enjoyed by different populations, to monitor changes in a population's health, to quantify health inequalities within a population and to assess the impact of non-fatal health problems on a population's overall health. The authors describe some of the complexities of calculating health measures and offer criteria for judging a summary measure: it should, for example, rise if age-specific mortality falls or if age-specific remission from a disease increases and should fall if age-specific prevalence or incidence of a disease increases. It helps if the measure is easy to understand and use. None of the measures currently available fulfils all the criteria but decision-makers should not wait before using those that come closest to the ideal.

## Cervical lesions magnified

In India cervical cancer is the leading malignancy in women, with about 90 000 new cases reported annually. In more than 90% of these cases, the lesions are in an advanced stage by the time the patient seeks medical care. In industrialized countries, mass cytological screening has largely brought the problem under control, at a cost, however, that is prohibitive for most developing countries. Direct visual inspection, one of the alternatives for these countries, detects at most 20% of precancerous lesions and carries an 11% false-positive rate. Parashari et al. (pp. 964–967) have devised a type of elongated magnifying glass that illuminates and magnifies the cervix, and facilitates visual inspection. The device, which they call a “magnivisualizer”, costs US\$ 12, plus US\$ 24 for a rechargeable battery lasting two years. In a study of 403 symptomatic women attending a maternal and child health care clinic in New Delhi, the magnivisualizer detected 77% of 208 cases of histologically confirmed early cervical cancer, vs. 82% detected cytologically. The specificity (% true negatives) of the magnivisualizer method was 94% (vs. 99% for cytology). The magnivisualizer was less sensitive than cytology in detecting very early precancerous lesions — 58% vs. 75% — but as sensitive (80–95%) as cytology for more advanced lesions. The magnivisualizer method, which is inexpensive and practicable in a primary health care setting, offers a valid method of screening for cervical cancer in countries that cannot afford cytological screening.

## Prevention of neonatal HIV: questions galore

Preventing mother-to-child transmission of HIV in developing countries might soon be technically feasible, judging from the results of recent trials of zidovudine and nevirapine in Thailand and Uganda, respectively. These results raise hopes but also, as Baggaley & van Praag caution (pp. 1036–1044), many questions. Given the cost of such treatment (the costs of counselling and testing, antiretrovirals and infant formula), would developing countries not be better advised to put their money into the distribution of condoms and health education to prevent HIV infection in adults, particularly pregnant women? Should bolstering basic health services and thereby reducing child mortality not be a top priority for resources? Even if funding were available for antiretroviral treatment, would pregnant women not be coerced or pressured to accept HIV testing to determine their need for treatment? Would those who accept be fully informed of the risks of side-effects or of social rejection? Would the availability of such treatment not increase the prevalence of high-risk behaviour and the number of HIV-infected children? All in all, the overriding consideration should be to safeguard the rights of women to adequate health care and social support, including proper counselling.

## Early warning of leishmaniasis relapse

About 10% of patients treated for American cutaneous leishmaniasis relapse but there is no reliable way of predicting which are likely to do so. In a study of 318 patients followed up for two years after antimonial treatment, in whom 32 (10.5%) developed relapses, Passos et al. (pp. 968–974) found that those who had not mounted a delayed-type hypersensitivity response to a skin test using a *Leishmania* antigen performed just before the start of treatment had a more than threefold risk of relapse compared with patients who had responded positively to the test. Sociodemographic factors, clinical features or anti-*Leishmania* antibody titres had no predictive value. A negative response to the skin test could be an indication for intensive treatment. The test, which is inexpensive and safe, is already widely used for the primary diagnosis of American cutaneous leishmaniasis. ■