

In this month's *Bulletin*

Most children in Karachi at risk of impairment through lead exposure (pp. 769–775)

Researchers found that 80% of children aged 3–5 years old in Karachi had elevated levels of lead concentration in their blood. The overall mean found was 15.6 µl/dl. WHO and the US Centers for Disease Control and Prevention consider 10 µl/dl and above to be elevated. Among the variables associated with these high levels were living closer to the busiest intersection in the city centre, application of surma to the children's eyes, the father's exposure to lead at work, and parents' illiteracy. The findings are of public health importance because they mean that most children in Karachi are likely to suffer some degree of intellectual impairment as a result of environmental lead exposure.

Low coverage means high measles incidence in Dhaka (pp. 776–782)

Measles remains a disease of public health importance in Dhaka, Bangladesh, with 57 cases per 1000 under-five-year-olds per year. Immunization coverage in Dhaka is reported as 65%, and in slum areas only 52%. Research on vaccine effectiveness and risk factors showed that with vaccine effectiveness estimated at 80%, measles control could be improved by reducing missed opportunities for vaccination. For elimination, more than one dose of vaccine would be required.

Remote sensing expedites helminth control (pp. 783–789)

Remote sensing prediction models can indicate patterns of helminth infection, showing potential areas of high risk for *Shistosoma haematobium*, researchers found. They used remote sensing satellite data to define seven ecological zones in Chad. Combining these with population data from a geographical information system, they made a sampling protocol and surveyed children in 20 schools for helminth infection. The study was able to predict the environmental limits of several helminth species in the country.

Malaria patients seek treatment too seldom (pp. 790–796)

Treatment uptake by those infected with *Plasmodium falciparum* in four villages in the Gambia was measured by comparing prevalence data from cross-sectional malaria surveys with requests for treatment. Despite

easy access to free health care, only 42% of those with parasite densities consistent with malaria attacks sought treatment. Self-treatment was infrequent in the study villages. Qualitative research could provide a better understanding of the barriers preventing symptomatic infected people from seeking biomedical treatment. *P. falciparum* infections cause at least a million deaths a year.

Murder and money are strongly linked in young males (pp. 797–805)

Economic changes can have a major impact on homicide rates in young people. However, redistribution of wealth without an overall increase in per capita gross domestic product may bring smaller reductions in homicide than overall economic development. It is homicide rates in young adults and adolescent males that are most likely to be lowered by interventions aimed at economic factors. These and other findings come from a comparative analysis of economic data and homicide rates from 61 countries.

Aerosolized measles vaccines work better than injected ones (pp. 806–812)

The aerosol route for measles vaccination is painless, simple, quick, well tolerated, more immunogenic in lower doses than injected vaccine, and avoids the risk of unsafe injections, researchers from the USA and Mexico conclude. Randomized controlled trials carried out with schoolchildren in Mexico led to this statement, based on significantly higher increases in neutralizing antibodies in the groups that received vaccine by aerosol. The increases ranged from 52% to 64%, whereas in the groups receiving injected vaccines they ranged from 4% to 23%.

Adequacy of haemoglobin test in question (pp. 813–816)

The Haemoglobin Colour Scale test entails spotting a drop of blood onto a strip of white absorbent paper and comparing the colour with six reference shades of red. This indicates the concentration of haemoglobin in the blood. The test is cheap, portable and easy to use, but the comparative analysis reported here found that only 46.08% of the results obtained in this test were within 1.0 g/dl of the reference method (the Technicon H3 automated laboratory analyser), whereas 95.34% of the HemoCue results fell within this limit. The author

concludes that the Colour Scale is too inaccurate for general use, but a Letter to the Editor (p. 837) contests this view.

Donated malarial drug brings treatment options into focus (pp. 817–821)

Malarone, a new antimalarial donated by Glaxo Wellcome, was used in Kenya and Uganda in a pilot programme started in 1999 for patients with *Plasmodium falciparum* malaria who had not responded to first-line treatment. Over 1000 patients who met participation criteria received directly observed treatment with Malarone. Compliance was high, the treatment effective, and the programme improved diagnosis and management of malaria. However, it was not clear whether providing Malarone as a second-line drug at the district hospital was making the best use possible of resources: high mortality rates among children and adults ineligible for the drug at the pilot sites revealed a major challenge for treatment at the community level.

Polio eradication effort has not reduced funds for routine immunization (pp. 822–828)

In Bangladesh, Côte d'Ivoire and Morocco routine immunization programmes continued at normal levels of funding after special polio eradication activities. Cold-chain equipment and maintenance, national immunization days, and surveillance for infection and acute flaccid paralysis made extraordinary demands on immunization funds and personnel, but have not led to long-term reductions in these countries.

The surgical needs of children in developing countries are neglected (pp. 829–835)

Surgery patients are responsible for 6–12% of all paediatric health hospital admissions in sub-Saharan Africa. In a government referral hospital in the Gambia surgical patients accounted for 11.3% of the paediatric admissions. The commonest diagnoses are injuries, congenital anomalies and surgical infections. Surgery is an essential component of basic health care but is commonly overlooked in developing countries. The authors find only 39 surgeons with paediatric surgical training in the whole of sub-Saharan Africa, each working in a large central hospital that is overcrowded and underfunded. They suggest ways to improve the situation. ■