

### **Dried blood samples can reveal measles immunity** (pp. 701–707)

Dried venous blood samples gave results as accurate as serum in a seroprevalence study for measles immunity. This means that in-country investigation of measles outbreaks could be carried out in any laboratory capable of performing enzyme immunoassays. Paired specimens of serum and dried venous blood from 98 suspected cases of measles were tested with a commercial enzyme immunoassay. The dried blood samples showed 98% sensitivity and 97% specificity compared to the results of serum testing. If independently validated, this method could be used for routine seroepidemiological surveys of measles, thereby overcoming problems associated with the transportation and storage of serum.

### **Management of childhood illnesses obstructed in the Sudan** (pp. 708–716)

In a group of poor villages and camps, only about half of the children judged to be in need of urgent care got to the place they were referred to within 24 hours. This was in the Messalamia area of Gezira State, near Medani, in which the integrated management of childhood illnesses approach had been introduced and well-received by the community. The most cited barrier to compliance was cost. Compliance with follow-up recommendations was 44%, the most common reason given for not going back to visit a health worker being that the child had got better. Lack of confidence in the quality of care provided peripherally also played a part in non-compliance.

### **Infant mortality reduced in rural Nepal** (pp. 717–725)

Risk factors for mortality in babies aged less than six months include maternal illness and death, and malnutrition during pregnancy. These and other findings come from a population-based study in rural Nepal in which women

of childbearing age in 270 communities were randomized to receive vitamin A, betacarotene, or placebo and provide relevant data. In the study area, 90% of the births occur at home. Infant mortality could be lowered by reduction of maternal morbidity in the third trimester, and improvement in arm circumference of women before and during pregnancy.

### **Vial size helps optimize vaccine use** (pp. 726–731)

Multi-dose vials are probably best for cheaper vaccines and where there is restricted cold chain capacity. For more expensive vaccines, however, and where there are problems with unsafe injection practices, single-dose vials are recommended. Prefilled auto-disable injection devices will be especially useful for expanding outreach services and eliminating the possibility of needle reuse. In 2000, 80% of the vaccinations administered globally were supplied in multi-dose vials, but efforts are in progress to increase safety and reduce waste by developing other options.

### **Meta-analysis suggests residential risk from radon** (pp. 732–738)

It probably is advisable to find ways of reducing human exposure to radon in residential settings. The conclusion comes from a meta-analysis of 17 studies published prior to 2003, which suggests the existence of a dose-response relation. The study illustrates the usefulness of meta-analysis for tracking evidence of low risks that may elude single studies. The association between radon and lung cancer in occupational settings is recognized, but for residential settings it is still controversial.

### **Injecting dogs can stop rabies in Chad** (pp. 739–744)

A dog vaccination campaign in N'Djaména, Chad, showed that high coverage was possible. At least 33 000

people a year die of rabies, mostly in tropical developing countries. Parenteral vaccination of the dog population can control this disease, however. In three urban areas of N'Djaména, 87%, 71% and 64% of the dogs received parenteral vaccinations. Rabies can be eradicated if 70% of the dog population is vaccinated repeatedly.

### **Round Table: how to control meningitis** (pp. 745–750)

The main paper argues for universal vaccination with group A meningococcal polysaccharide twice in infancy, followed by tetravalent vaccine in children aged two and six years. The responses say that this is not feasible, polysaccharide vaccine is not effective enough, most of the countries concerned do not attain high coverage, the booster doses would require revision of national vaccination policies, and the cost of this approach would be too high. WHO's recommended strategy of epidemic detection and response has been shown to avert a large proportion of potential cases. Conjugate meningococcal vaccines offer a more promising alternative. Improved housing, sanitation and nutrition probably offer better protection against bacterial diseases than any vaccine. Finally, not enough is known about the disease. For instance, why is the meningitis belt extending southwards, and why do meningitis epidemics end with the beginning of the rainy season?

### **Smallpox overrated as a weapon of mass destruction** (pp. 762–767)

"Smallpox cannot be said to live up to its reputation. Far from being a quick-footed menace, it has appeared as a plodding nuisance with more bark than bite." The dangers of mass vaccination are significant. Case isolation, contact tracing and quarantine of close contacts are of high importance for outbreak control, as is a network of electron microscopes to meet the need for rapid diagnosis. ■