

# Drawers of Water

## *Domestic Water Use in East Africa*



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### Drawers of water

By one estimate, every day on average 25 000 people die as a result of a lack of safe water, and about 1.7 billion people — more than a third of the world's population — suffer from this lack. Attempts to solve the problem have come up against a dearth of solid evidence about the many factors — individual, social, economic, epidemiological, environmental, and so on — that complicate the issue. A landmark study that set out to fill some basic gaps in information was conducted in the 1960s in East Africa by Gilbert White, David Bradley and Anne White, and published as a book in 1972, *Drawers of water: domestic water use in East Africa*. In the Public Health Classics section (pp. 61–73), which reproduces an extract from the book, Thompson & Cairncross explain how this “first thorough study of water use in a developing country from the consumer's point of view” became “a seminal starting point for many of those professionals ... who devoted their careers to extending water supply and sanitation services to the unserved millions in the developing world”. Their review ends with a foretaste of a new study, to be published later this year, that revisited the sites of the original *Drawers of water* study. The aim was to find out what, if anything, had

changed in the past three decades in the way East Africans use water and in their needs for safe water.

### Responding to cholera vaccine

Trach et al. (pp. 2–8) report two randomized trials undertaken in Viet Nam to determine whether a locally made anti-cholera vaccine, designed to protect against two strains of *Vibrio cholerae*, is as safe and as effective in eliciting a strong immune response as a commercially available oral vaccine made in Sweden and designed to protect against one strain of the causative organism. The Vietnamese vaccine costs about US\$ 0.20 a dose, the Swedish vaccine about US\$ 3 a dose (in developing countries). Both vaccines are given in two oral doses. One trial was conducted in 143 adults, the other in 103 children aged 1–12 years. The Vietnamese vaccine, the study found, was as safe and immunologically effective (immunogenic) as the Swedish vaccine. The next step will be to find out if it is protective against cholera in a real-life setting.

### Human resources for better health systems

In 1995, a growing realization that the governments of many developing countries were not providing the health care

needed and expected by their populations prompted WHO to call on its member states to improve their health systems by raising the standard of education and training of health workers and generally by making better use of health care staff. Alwan & Hornby (pp. 56–60) explore the extent to which countries in WHO's Eastern Mediterranean region have complied with WHO's plea. They find many examples of increased investment in health facilities and services but a general lack of attention to human resources. The result has been a gradual fall in efficiency and effectiveness. Countries wishing to reform their health systems adequately, the authors conclude, require a national health plan that is based on an analysis of their current health systems and that focuses on making better use of human and institutional resources.

### Lowering preventable child mortality

Infectious diseases cause about 70% of deaths in children in developing countries and more than a third of those deaths occur in neonates. In an attempt to identify how a significant proportion of these deaths might be prevented, Duke et al. (pp. 16–25) analyse the results of a prospective audit of children's deaths that occurred over a two-year period in a rural hospital in the highlands of Papua New Guinea. Several “avoidable factors” were identified for about half of the 353 deaths that occurred in children over the two years. The three most common factors were lack of antenatal care in high-risk pregnancies (8.8% of all deaths), delayed admission of severely ill children (7.9%), and inadequate vaccination against vaccine-preventable diseases (7.9%). Among the most common factors linked to neonatal mortality was lack of skilled maternal care (in 40% of neonatal deaths). Overall, seven clinical conditions accounted for 76% of all deaths in children; nine microbial infections accounted for 41% of all deaths and for 76% of all deaths involving an infection. The study suggests that a few basic health reforms, such as increasing immunization coverage and recruiting more women to provide maternal care, could produce significant reductions in child mortality in developing countries. ■