Correspondence

Estimating the prevalence of schistosomiasis

We read with interest the article by Dr R. C. Ratard and colleagues (1992: *Transactions*, **86,** 274–276), which described a method of estimating the prevalence of schistosomiasis infection for an entire nation based on the authors' own surveys of schoolchildren, the results of which were then extrapolated to the entire country using the ratio of the prevalence of infection in the general population to that in schoolchildren as previously found in other published studies. While the overall approach is reasonable, it would have seemed preferable to us, from a methodological point of view, to have weighted the general population/children ratios found by others according to the size of the samples used.

Surveys carried out on children aged 10–19 years have the advantage of focusing on a group with a high prevalence of infection which is often easy to reach through school-based surveys. However, our experience shows that in certain socio-epidemiological situations studies limited to this target group are not always feasible and may underestimate infection rates.

Between 1986 and 1989, by means of a census and cluster surveys carried out according to the field methodology popularized by the World Health Organization, we conducted over 25 studies in villages bordering a large artificial lake (Lac de Lagdo) in the Northern Province of Cameroon.

From 1149 stool specimens examined for *Schistosoma mansoni*, we found a population/children ratio of 0·62, and with 1263 subjects surveyed for *S. haematobium* we found a ratio of 0·79, which is appreciably higher than that reported in the studies cited by Ratard *et al.* (*loc. cit.*). These results most probably reflect the influence of parasite importation into a recently flooded area coupled with conditions which favoured transmission among adults whose chief means of livelihood was fishing. Large rural irrigation projects can completely modify the local socio-demographic situation (Robert, C. F. 1989: *Tropical Medicine and Parasitology*, **40,** 153). In such circumstances establishment of the educational structure is often delayed which makes evaluation of the epidemiology of schistosomiasis difficult using classical methods. However, it is precisely in these populations, where the epidemiological situation is in such flux, that trends need to be monitored closely. We regret that Ratard *et al.* (*loc. cit.*) did not take into account all data published concerning the epidemiological situation in Northern Province. This would have provided information on *S. mansoni*, which is lacking in the cited reference concerning this region (Ndamkou, C. N., 1989: DSc Thesis, Faculty of Science, University of Yaoundé, Cameroun).

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23 September 1992

Estimating the prevalence of schistosomiasis: a reply

The comments by Drs Rougemont and Robert [above] underline the difficulty in extrapolating from a special age group to the entire population. The ratio cited by them is slightly higher (0·79) than the 2 highest ratios cited in our paper (0·77) (Ratard *et al.*, 1992: *Transactions*, **86,** 274–276). As explained by Rougemont and Robert, their high ratio was due to transmission among adults in a recently flooded area. We agree that large irrigation projects are of special epidemiological interest and need to be monitored closely with methods that have to be adapted to the special circumstances. The large majority of the population affected by schistosomiasis in Cameroon lives in areas with neither irrigation nor water development. The most intense transmission occurs in heavily populated areas with only temporary bodies of water (Ratard *et al.*, 1990: *American Journal of Tropical Medicine and Hygiene*, **42,** 561–572). In estimating numbers of cases on the scale of an entire country, we attempted to look at the most typical situations and provided a wide confidence interval to take into account special situations.

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22 October 1992

The management of malaria in a district hospital: what drugs?

The article by D. G. C. Emerton (1992: *Transactions*, **86,** 476–478) is an excellent example of audit in a tropical hospital which could have a crucial role in improving patient care. Some aspects of the antimalarial treatment merit comments. Repetition of chloroquine treatment in patients with a positive blood slide the day after a 3 d chloroquine treatment is not really satisfactory. Some of these cases may have an infection which is fully sensitive to chloroquine, and will eventually clear with or without extra chloroquine. Most of them, however, will have a chloroquine resistant infection, which should be given an alternative treatment, more likely to afford a radical cure. It is understandable that the doctors wanted to assess the response of their patients as early as day 3, before resistance could be proven; but there should be no reluctance to give sulfadoxine-pyrimethamine to hospital patients in whom the ability of chloroquine to clear parasitaemia is uncertain.

To go further, it may be questioned whether, in areas where resistance to chloroquine is common, hospital patients should be routinely treated with chloroquine as the first-line drug. Negative blood slides during the first week are no guarantee that the parasites will not recrudesce later, and parasitological follow-up may prolong hospital stay beyond what is warranted by the patient's condition. It could well be argued that hospital patients must be considered a risk group in whom a radical cure should be ensured from the onset.

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10 November 1992

The management of malaria in a district hospital: what drugs?—A reply

During the one year of audit of malarial treatment referred to in my paper (1992: *Transactions*, **86,** 476–478) there were 129 readmissions of patients who had been previously treated for malaria earlier in the year. Their previous in-patient treatment is shown in the Table.

Table. Details of treatment of patients re-admitted with malaria; Murgwanza hospital, Tanzania

Drugs given	Patients: No. who survived	Patients: No. re-admitted	Interval since previous admission (d)[a]
One chloroquine course	849	79 (9·3%)	65 (5–263)
Two chloroquine courses	279	25 (8·9%)	82 (4–331)
Quinine and pyrimethamine-sulfadoxine[b]	238	18 (7·6%)	107 (29–312)
One chloroquine course and pyrimethamine-sulfadoxine	32	4	124 (79–244)
Two chloroquine courses and pyrimethamine-sulfadoxine	20	3	76 (39–102)

[a]Mean; ranges in parentheses.
[b]Including patients given chloroquine initially.