Sir—Amir Attaran and coauthors[1] argue clearly and convincingly that institutional inadequacies are the reason for non-fulfilment of good policies for malaria control. However, their criticism focuses on the drugs being used and ignores the importance of the health-care system delivering the drugs.

Chemotherapy of infectious diseases should be an element of a package of expert diagnosis, therapy, and follow-up, as has been shown for tuberculosis and AIDS treatment.[2,3] Unfortunately, for malaria we rely too much on drugs as the only tools. Artemisinin drugs are very active and safe, but they are not the miracle drug chloroquine used to be. The need for drug combinations and their high cost necessitate a more selective case definition; better knowledge of efficacy, tolerance, and interactions; and improved follow-up. As a result, we have reached the limits of what is possible with the unguided use of chemotherapeutic agents.

National and international drug policies are essential, but cannot solve all problems. Instead, we need to ensure that chemotherapy of malaria becomes an evidence-based practice, by developing an essential service package, perhaps along the lines of the WHO DOTS strategy for tuberculosis control, with elements such as government commitment, an agreed diagnostic pathway, secure drug supply, and a monitoring system for treatment outcomes. In short, we need to change the approach from "access to drugs" to "access to care".

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1 Attaran A, Barnes KI, Curtis C, et al. WHO, the Global Fund, and medical malpractice in malaria research. *Lancet* 2004; **363:** 237–40.
2 Frieden TR, Sterling TR, Munsiff SS, Watt CJ, Dye C. Tuberculosis. *Lancet* 2003; **362:** 887–99.
3 Reynolds SJ, Bartlett JG, Quinn TC, Beyrer C, Bollinger RC. Antiretroviral therapy where resources are limited. *N Engl J Med* 2003; **348:** 1806–09.

Sir—Amir Attaran and colleagues' Viewpoint on medical malpractice in malaria treatment[1] could have alarming relevance for WHO's plan to treat 3 million AIDS patients by 2005. The use of ineffective drugs against drug-resistant malaria could foreshadow an even worse scenario with WHO's AIDS plan. The plan's main failure is in recommending lower treatment standards than those of western countries and even of some African countries. WHO says that viral-load testing is optional because of "resource constraints". But such tests are being done in the UN/Accelerated Access Initiative for AIDS treatment in Africa.

The plan is vague on medical supervision and follow-up. It calls for community health workers to monitor treatment, but whether skilled medical personnel have any role in treatment is unclear. Such involvement is critical for monitoring of progress, side-effects, and drug resistance. By contrast, AIDS programmes such as the one in Botswana use medical models with proper diagnostic tests and follow-up by qualified medical practitioners.

Can lesser treatment standards make a difference to patients' outcome? Robert Gallo and Luc Montagnier, co-discoverers of HIV, say: "If compliance and careful follow-up of patients is not achieved, we will see a dramatic increase in multidrug-resistant HIV mutants whose further spread will only exacerbate the epidemic."[2]

Most worrisome is the fact that WHO has approved a fixed-dose combination AIDS drug, Triomune (containing stavudine, lamivudine, and nevirapine), that is not a true generic but an investigative new drug. Genuine generics must be interchangeable with original patented products, having the same active ingredients and bioavailability. In the case of this drug, however, there is no established innovator or patented drug. Thus, there are no clinical data to show whether these combined drugs are as safe and effective as the three drugs taken separately, or other tested combinations. Pharmacologists well know that when drugs are combined, they can act differently from when taken separately. Absorption and excretion rates can change, or the combined drugs could compete for the same receptor sites. Moreover, after widespread use, if a problem arises, which of the three drugs caused it would be impossible to tell.

If WHO intends to prevent in AIDS what is happening with drug resistance in malaria, then it must answer why it recommends investigative new drugs for poor Africans. There should be no reason to take irresponsible cost-cutting measures when AIDS drugs—patented or not—are now competitively priced, and when the Global Fund and other private donors are providing resources to pay for higher treatment standards.

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1 Attaran A, Barnes KI, Curtis C, et al. WHO, the Global Fund, and medical malpractice in malaria research. *Lancet* 2004; **363:** 237–40.
2 Gallo R, Montaigner L. Prospects for the future. *Science* 2002; **298:** 1730.

Sir—As authors of the Viewpoint on the malpractices of the WHO and Global Fund with regard to malaria treatment,[1] we do not find the responses of those agencies (Jan 31, p 397)[2,3] encouraging.

To begin with, the Global Fund's use of "spin", rather than evidence, is notable. Vinand Nantulya and John Lidén of the Global Fund protest vehemently that our Viewpoint "twists reality" and "get[s] several facts wrong".[3] However, they do not cite a single example to show that any of our statements are factually incorrect. More importantly, they do not deny that the Fund spent much more on chloroquine and sulfadoxine-pyrimethamine than on artemisinin-based combination therapies (ACT). This discrepancy is most egregious in countries where drug resistance renders chloroquine and sulfadoxine-pyrimethamine almost totally useless. They do not deny that thousands of children died as a result of their decision to fund ineffective treatments. If any of our statements are "wrong" as they say, we await their evidence. Otherwise we await their acknowledgment that the Global Fund's institutions failed and must change. Our goal is to prevent a recurrence of this dangerous policy.

The WHO response by Fatoumata Nafo-Traoré[2] is more reasonable. However, whether WHO will really prioritise malaria and accomplish what Nafo-Traoré outlines is unclear. When Director General Lee Jong-Wook[4] set out his vision for WHO, he mentioned HIV or AIDS 26 times, SARS five times, and malaria not at all. Certainly this was not meant as a comprehensive manifesto, but it does suggest that malaria is not a top priority at WHO.

The striking difference, in attitude and substance, between the WHO and Global Fund replies suggests that we should have drawn a sharper distinction between these two agencies in our Viewpoint. WHO should be the lead technical agency on malaria, and the Global Fund should be a funding agency, and not one that makes technical decisions. Where the Global Fund has made technical decisions, it has failed badly, and patients have been treated with ineffective drugs. Its Technical Review Panel is not "technically robust" and "rigorously assembled" as Nantulya and Lidén claim, but weak and tainted by

cronyism. Of the panel's four malaria experts, three are employed by the US Agency for International Development or its contractors. Several other panellists are career administrators rather than technical practitioners, or do not have advanced training or a record of peer-reviewed publications in medicine, science, or public health (panelists' résumés are available at http://www.theglobalfund.org/en/about/technical/ [accessed Feb 17, 2004]). Nobody doubts that administrative skills are important for funding decisions, but medical and technical skills are required to make critical decisions on medical treatment. Yet the Technical Review Panel is currently making medical decisions when it evaluates malaria medicines, and awards US$5 billion of Global Fund pledges. Many millions of patients are affected by these technically complex decisions, which are better left to committees of independent, unbiased, medical and scientific experts, convened by WHO.

Going through that process may also help the WHO set down guidelines for its own staff. Days after our Viewpoint was published, WHO's representative in Ethiopia unwisely opined that malaria drug resistance was not proven scientifically, and that he "would challenge anybody. . . to show that there is [drug] resistance" in Ethiopia.[5] Yet the WHO's own reports show that Ethiopia has some sort of the highest levels of the severest *Plasmodium falciparum* chloroquine resistance in Africa. Something is obviously wrong when WHO's top representative in Ethiopia—he is there overseeing an epidemic now—is so technically uninformed and is not taking proper guidance from Geneva.

All these issues were discussed at a meeting with representatives of the Global Fund and WHO in Geneva on Feb 24, 2004. The need for change is acknowledged, and timelines for this process will be forthcoming from both organisations in the near future: a development which we applaud, and await with interest.

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1 Attaran A, Barnes KI, Curtis C, et al. WHO, the Global Fund, and medical malpractice in malaria research. *Lancet* 2004; **363:** 237–40.

2 Nafo-Traoré F. Response to accusations of medical malpractice by WHO and the Global Fund. *Lancet* 2004; **363:** 397.

3 Nantulya VM, Lidén J. Response to accusations of medical malpractice by WHO and the Global Fund. *Lancet* 2004; **363:** 397–98.

4 Lee JW. Global health improvement and WHO: shaping the future. *Lancet* 2003; **362:** 2083–88.

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Global health improvement and WHO

Sir—I commend Lee Jong-Wook for his Public health article (Dec 20, p 2083),[1] the most shocking statistic of which highlights the fact that almost a fifth of all deaths across the world occur in developing countries in children younger than 5 years. Efforts by WHO to alleviate this terrible burden are to be acclaimed.

I find it disheartening, however, that a 5000-word essay on global health improvement makes only a few general references to non-communicable diseases and fails to mention the Framework Convention on Tobacco Control (FCTC), one of WHO's signal achievements. In fact, the words smoking and tobacco do not appear anywhere in the article, despite WHO's acknowledgment that 4·9 million people are dying each year from tobacco use—a figure that will double within a generation. According to WHO's own statistics, the burden of disease is currently shared evenly by developed and developing countries, but 70% of this risk will be borne by those in developing countries by the 2020s.

If a medical issue is not specifically mentioned in WHO's priorities, how can we ever hope for a solution? The FCTC was a great accomplishment, but WHO must continue to pursue a rigorous agenda for implementation of the Convention's strongest measures. The vector of smoking-related illness, the nicotine cartel, will not rest. Therefore, WHO must remain vigilant and persuasive in its efforts to combat this man-made and worsening plague.

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Physical activity in young children

Sir—John Reilly and colleagues (Jan 17, p 211)[1] make a valuable contribution to an area in which data are badly needed. They document the energy expenditure and physical activity of 3-year-olds and 5-year-olds using state-of-the art techniques for total energy expenditure and physical activity, and the Schofield equation for resting energy expenditure. We would like to voice caution over the interpretation of some of the results, and the advice offered to the rest of the UK by James Hill in his accompanying Commentary.[2]

Reilly and colleagues report that young children spend 80% of their time in sedentary behaviour, a figure that is deemed high. But what is the expected figure? Perhaps 80% has always been the norm. There is at least some evidence that children undertake physical activity to satiety.[3] The EarlyBird study has sufficient numbers (n=272) to provide normative data on 5-year-olds and, although the cohort comes from the other end of the UK (Plymouth), the mean physical activity, measured with identical technology,[4] is very similar (boys 843 counts per min [cpm], girls 791 cpm) to that from Glasgow (boys 874 cpm, girls 761 cpm). Are Plymouth children party to the same "revelation" referred to in the Commentary that "Modern British children establish a sedentary lifestyle at an early age", or would similar data have emerged 30 years ago, before the epidemic of childhood obesity? The Plymouth and Glasgow children might be underactive, but the fact is we do not know, and we should bear this uncertainty in mind before imposing a solution to excessive weight gain in young children. In reality, the figures recorded in Plymouth and Glasgow exceed the current health-related physical activity recommendations for this age-group.

Similarly, total energy expenditure was deemed to be low in the Glasgow children, but only in relation to an "estimated requirement"—based on what? Energy expenditure requirement as it applies to weight gain only has meaning in relation to energy intake. Reilly and colleagues' data in fact suggest that the non-resting energy expenditure of their "inactive" 5-year-olds is substantial: 41% of the total energy expenditure in boys and 33% in the girls. These proportions are higher than those deemed physiological in the literature of two generations ago. Furthermore,