

The young people who participate in these projects are our leaders of the future. If they are taught to accept each other, learn from and with others, and take an interest in things and processes in their surroundings, it will be an important step on the path toward peace and understanding among nations and will encourage positive developments in the lives of individuals.

LADY MAYOR BEATE WEBER

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HIV/AIDS Control in Sub-Saharan Africa

AS THE AIDS EPIDEMIC IN SUB-SAHARAN Africa escalates, international actors raise their voices and request additional money and drugs (Policy Forum, "Resource needs for HIV/AIDS," B. Schwartländer *et al.*, 29 Jun., p. 2434). But does this really address the core of the problem?

The efficiency of sub-Saharan government service systems, including education and health, has gradually declined in recent decades and is nearly impossible to maintain because of dwindling resources. Overstaffed with poorly paid personnel and given inadequate resources, these systems generally produce little—health workers see few patients, and schools often do not function because of a lack of teaching materials and a shortage of teachers due to AIDS.

Reform is under way in sub-Saharan Africa, but it is slow and requires politically difficult restructuring. For example, the salary system is largely built on allowances, and this has led to those at the central level spending a disproportionate amount of time attending meetings instead of doing productive work. Pouring money into such systems is unlikely to lead to development. According to a World Bank study of 10 African countries, most economies actually declined as money came in (1). The ongoing reforms often do not tackle these problems headon, but favor sectorwide budget support, irrespective of the particular country's situation. Rectifying these problems will take time, demand flexibility from donors and political courage from the recipients, and require nationally rather than internationally formulated solutions (2).

The existing systems cannot be fully relied on to control AIDS. Moreover, to flood them with money and antiretroviral drugs, which they do not have the capacity to handle, would compound the situation further. For example, because highly active antiretroviral therapy (HAART) re-

quires safe, well-functioning laboratories, it can only be made available in a few specially equipped hospitals and thus will likely have limited public health impact.

Certainly money and drugs are needed, mainly for the treatment of sexually transmitted diseases and opportunistic infections and for prevention of mother-child transmission. But, most of all, there is a need for operational systems that can absorb money and effectively transform it to care and prevention. Although implementation cannot rely entirely

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on government systems, it has to be done in close cooperation with them to achieve reasonable coverage. Smaller, nongovernmental organizations that have a proven track record could be used to grease the machinery, but however aid plans are implemented, there must be simultaneous support for sector reforms and individual projects (2).

The emphasis on money and HAART drugs does not give a balanced picture of the requirements of most Sub-Saharan countries. More is required—we need a more honest problem analysis and with this a more profound understanding of the issues. A simplified approach might be attractive, but overlooks difficulties and risks misallocation of resources.

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References and Notes

1. S. Devarajan, D. Dollar, T. Holmgren, Eds., *Aid & Reform in Africa* (World Bank, Washington, DC, 2001).
2. S. Hanson, *Int. J. Health Plann. Mgmt.* 15, 341 (2000).

Response

HANSON'S CENTRAL POINT IS THAT MONEY and drugs alone are not the answer to HIV/AIDS control in sub-Saharan Africa. We could not agree more. However, effective HIV/AIDS control will not be possible without additional resources. In our study, we calculated costs for HIV/AIDS-specific interventions and explicitly excluded resource needs for strengthening infrastruc-



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SCIENCE'S COMPASS

ture and operational systems. Yet, it is clear that to implement these HIV/AIDS-specific interventions, strengthened systems in different sectors (health, education, labor, and others) are essential.

Simplistic approaches, such as purchasing HAART drugs without ensuring that local infrastructures have the capacity to deliver them appropriately, would at best provide only short-term benefits to a small portion of the population in need and at worst could make the epidemic worse by generating drug resistance and prevention complacency. However, given the scale and urgency of the HIV/AIDS epidemic, one cannot use poor infrastructure as an excuse for not responding. Indeed, the political momentum associated with demands to increase antiretroviral access should be exploited as an historic opportunity to rectify long-standing deficiencies in health infrastructures.

The lesson from two decades of success and failure is that support to national priorities, including building up local capacity and infrastructure, is the key to turning back the HIV epidemic. Effective strategic planning on HIV/AIDS must include governmental and nongovernmental organizations and cut across all health, social development, and economic sectors. With the

support of the Joint United Nations Programme on HIV/AIDS (UNAIDS) and other international partners, many countries in sub-Saharan Africa have already developed such plans. These plans should not be allowed to fail because of a lack of resources.

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CORRECTIONS AND CLARIFICATIONS

NEWS OF THE WEEK: "Petition seeks public sharing of code" by D. Malakoff (5 Oct., p. 27). The location of Phil Green was erroneously given as Washington University in St. Louis. For the past 7 years Green has been at the University of Washington in Seattle, where he is currently an Howard Hughes Medical Institute investigator.

NEWS FOCUS: "Bold corridor project confronts political reality" by J. Kaiser (21 Sept., p. 2196). The name of John Beavers was misspelled. Also, Guatemala's Maya Biosphere Reserve is not part of the largest intact tropical forest north of South

America as was stated, but is only part of it; this forest includes land in Belize and Mexico.

POLICY FORUM: "WHO ranking of health system performance" by D. T. Jamison and M. E. Sandbu (31 Aug., p. 1595). The reference citations are inaccurate. In reference (9), the two geographical variables provided by J. L. Gallup and J. Sachs may be found in the data set at www.cid.harvard.edu/cid-data/ciddata.html, not in the *Brookings Papers on Economic Activity*, as stated. The work of D. Bloom and J. Sachs mentioned in reference (10) can be found in *Brookings Pap. Econ. Act.* 2, 207 (1998).

Letters to the Editor

Letters (~300 words) discuss material published in *Science* in the previous 6 months or issues of general interest. They can be submitted by e-mail (science_letters@aaas.org), the Web (www.letter2science.org), or regular mail (1200 New York Ave., NW, Washington, DC 20005, USA). Letters are not acknowledged upon receipt, nor are authors generally consulted before publication. Whether published in full or in part, letters are subject to editing for clarity and space.

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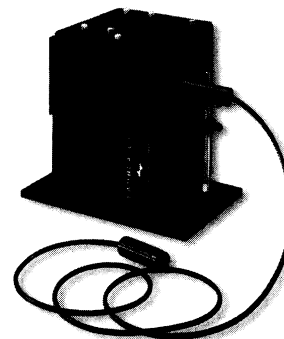
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