Mission now possible for AIDS fund

Adequate support by the G8 countries is needed to defeat this global killer.

Peter Hale and colleagues

The G8 summit in Genoa this week (20–22 July) may be the last chance to increase funding for the global fund on AIDS on the scale required — and to get it up and running this year. Waiting another year will cost countless lives. Donors and recipient countries now agree that the fund must be sustainably financed, properly structured, have a clear mandate, be lean and agile, and be independent to decide on the distribution of funds. But consensus is meaningless without adequate resources.

Kofi Annan, the United Nations (UN) secretary-general, has said that US$7 billion–10 billion a year is needed for a comprehensive programme for HIV/AIDS prevention and treatment in the poor and middle-income countries most affected by the epidemic. Two independent cost estimates published this year[1,2] have produced similar figures. The UN team[2] estimates that $9.2 billion per year will be needed by 2005, in line with confidential government and industry assessments, as well as other private estimates currently in preparation. Careful comparison of these estimates suggests that $8 billion–10 billion per year will be needed over the next 5–10 years, not all through the AIDS fund. Recipient countries are expected to cover a substantial portion of this amount annually. But for the least-developed countries in Africa, and south and southeast Asia, at least 80% of the funds will have to come from international sources[2].

Yet, despite public and political support in the West, commitments to the Global AIDS Fund total less than $1 billion (see Table 1). This is not enough. Donor countries are fooling themselves if they feel that this would make a significant impact; it will not. It is also unclear whether the $845 million pledged so far will be new money or whether it would be diverted from other development programmes. Of the $8 billion–10 billion required to endow the fund each year, roughly half will be for prevention efforts in highly affected countries; the other half will be for improvements in infrastructure to expand access to treatment[2].

Table 1 **Commitments to the Global AIDS Fund to 10 July 2001**

Country	*Commitment (US$ million)*
United States	200
United Kingdom	200
Japan	200
France	127 over 3 years
Gates Foundation	100
Nigeria	10
Luxembourg	2.5
Uganda	2
Zimbabwe	1
Austria	1
Winterthur	1
Total	844.5

Only commitments over US$1 million are listed – there are smaller contributions, which add up to less than $500,000. Canada and Italy are expected to announce their contributions at the G8 summit; Germany and Russia have yet to hint at theirs. Source: UN Foundation.

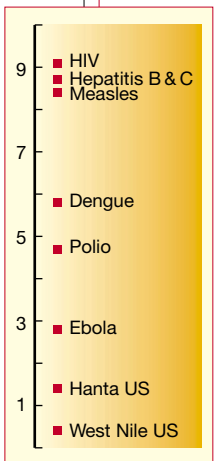
Although $8 billion–10 billion is a lot of money, it is in line with AIDS spending elsewhere. For example, the United States has more than 800,000 people living with HIV/AIDS and spends $20 billion a year on prevention and treatment. Countries in the European Union spend only slightly less per head. In this context, $8 billion–10 billion for 33 million people living with HIV/AIDS in the least-developed nations in Africa, Asia, Central and South America is not unreasonable. Moreover, this amount represents just 0.005% of the total gross national product of the seven richest G8 nations. Last month, Donald Rumsfeld, the US secretary of defence, announced plans to order 60 B2 bombers at a total cost of $120 billion. This sort of cost comparison is often criticized, but if we agree with US secretary of state Colin Powell that fighting AIDS is like waging war — and we do — it is reasonable to compare the costs of what it is going to take to beat the enemy. In this case, the enemy has already killed 23 million and will kill at least 3 million more this year.

There has always been a disconnection when it comes to financing the war on AIDS. To bring the total up to $8 billion–10 billion, each donor country needs to add a zero. A one-log increase by each of the G8 nations will put the fund in reach of this goal. The extra needed, $1 billion–2 billion, should follow from industry and the private sector, especially if tax incentives are provided.

If we don't act now, AIDS will cost billions of dollars more later. Instead of adding one zero now, we may have to add two zeros in ten years — and witness during this time the horrific human and socio-economic toll of an epidemic that will decimate Africa, and perhaps parts of the Caribbean, within a decade. Failure to act now will also allow the virus to continue its rampage across Asia and Eastern Europe, and will impede efforts to control its spread in Latin America.

For far too long, many African and Asian leaders have wasted precious time in failing

HIV a '9' on Richter scale of viral diseases



HIV is, without doubt, the 'big one'. This virological 'Richter' scale ranks viruses in the same way as earthquakes. The figure is based on a $\log_{10}$ scale, where 10 represents all deaths worldwide from infectious diseases in 1999. HIV registers a 9.1. For HIV, 23 million people have already died, 36 million are incubating the virus, and 5 million are newly infected each year. More than 3 million will die this year, mostly in sub-Saharan Africa.

The only viruses that have come close to this doomsday scale are the Spanish influenza that killed more than 20 million in the 1918–19 pandemic, and smallpox, which has now been eradicated. Today, hepatitis B and C are major causes of liver disease and cancer, collectively ranking 8.7 in terms of deaths. An effective vaccine against hepatitis B is being introduced worldwide.

Several orders of magnitude lower are dengue fever and polio. In the 1950s, polio caused a great scare in the West. An endemic virus, it might have ranked 6.5 at the time. Large-scale vaccination programmes in its last few regional hold-outs, mainly central Africa and India, mean that the conquest of poliovirus is within reach. Ebola ranks a 3 at most; although frightening, it does not seem to travel well. The West Nile and Hanta viruses, both of which made front-page news in the United States, barely cause a ripple on the scale. A death from Ebola is as great a loss as one from HIV, but in terms of public health it is madness to lose sight of the big ones.

Of all infectious diseases, HIV is the only one that has skyrocketed from nowhere to more than 60 million infections in around 30 years. Given its sexual transmission among young adults, its highest prevalence among the poorest nations of the world, the cost of antiviral medicines, and the lack of a vaccine, there is no let-up in sight. There is nothing to suggest that HIV will plateau, or that it will not reach one billion cases before 2050. It is unlikely, but not impossible, that HIV could attenuate itself, but when and at what human toll? Nobody has any idea. Intervention must be on the same massive scale as the magnitude of the epidemic.

to confront the epidemic head-on. Now that a growing number of them are facing the issue, we cannot afford Western leaders to go into denial about how much it is going to cost to fix the problem. For the first time, the world is united in spirit behind an ambitious plan to curb the spread of HIV. The unprecedented declaration accepted by 185 states at last month's special UN General Assembly session on AIDS is compelling evidence of a new willingness by the hardest-hit countries in Africa and Asia to step up their prevention programmes and to make the necessary improvements in health infrastructure.

We, the authors of this Commentary, collectively have more than 150 years' experience of HIV/AIDS, as scientists, clinicians or public-health experts. We believe that the Global AIDS Fund, if properly financed and managed, represents our best chance to stem the epidemic. How the fund is managed and run needs to be determined, but it must not become a turf war between development agencies and stakeholders. There is room for everyone's ideas to be included.

Decisive action by the G8 nations is crucial in determining whether the fund is successfully launched this year on the scale required. The success of the rich, industrialized nations is inextricably linked to the success of the developing nations. This is why we hope that the G8 countries will rise to the occasion and find ways to finance the fund to accomplish its mission. Such action will not only be a mark of true leadership, but also of humanity in its highest form. ■

1. Sachs, J. D. *Nature Med.* **7,** 521–523 (2001).
2. Schwartländer, B. *et al. Science* **292,** 2434–2436 (2001).

Success hinges on support for treatment

HIV prevention and treatment are inseparable. One big debate that never materialized during the UN General Assembly meeting on AIDS last month (see *Nature* **411,** 984; 2001) was about priorities for the Global AIDS Fund, particularly how to allocate funds to prevention compared with those for improvements to public-health infrastructure and access to treatment with anti-HIV drugs. Most AIDS experts endorse the idea that prevention and treatment are crucially linked, and the authors of a policy forum in *Science* (**292,** 2434–2436; 2001) estimate that the split should be roughly 50/50. Unfortunately, not all government and private development agencies agree, nor do some high-ranking Western officials.

The overwhelming majority of Africans, of course, want treatment; the question is not 'if' but 'when'. "Don't even ask us," said one African delegate. "The answer is yes, yes, yes and yes." You can ask the same question of any young man or woman on the streets of Soweto or Lusaka and get the same answer.

Any debate on prevention versus treatment would not have been possible even a year ago because of the prohibitively high cost of combination anti-retroviral therapy. Since then, drug companies have discounted the cost of these medicines for the least-developed countries, sometimes by as much as 90%. So far, 58 nations have purchased HIV/AIDS drugs at preferential prices, bringing the cost of treating HIV closer to that of treating chronic conditions such as type-2 diabetes and high blood pressure.

Prevention and care are synergistic. Attempts to prioritize one at the expense of the other are morally indefensible, a denial of a fundamental human right, and just plain bad public health. The main argument for focusing on prevention rather than treatment is that it is more cost-effective when funds are limited. This masks the mistaken but still widely held view in the West that treatment in poor countries cannot be funded, even with discounted drug prices, because of the lack of basic health-care infrastructure (trained doctors and nurses, hospitals, clinics, labs and equipment).

> There is little incentive to get tested for HIV if there is no treatment.

Yet considerable infrastructure exists in countries such as South Africa, Kenya and Zimbabwe. Where there is political will, infrastructure can be upgraded on a crash basis. Human ingenuity to create temporary structures to do the job effectively should not be underestimated; many Western hospitals boast trailers and temporary buildings yet deliver world-class medical care. Certainly, money is needed for infrastructure, but a little goes a long way in Africa.

Another myth is that Africans will be unable to follow complex drug regimens, leading to the development of resistant virus that could be transmitted. On the contrary, studies in Africa, especially in Uganda and Senegal, show that compliance with drug regimens where there is patient education is as good as in New York City. In any event, regimens are nowadays much more simple.

A third myth is that the standard of HIV care would be suboptimal, so it should not be attempted. This hypocritical view overlooks the beginnings of HIV treatment in the West (monotherapy, then bi-therapy, then triple therapy), as doctors and patients learned as they went along. It was distressing to hear this argument advanced by a few African officials after the UN meeting. It also sets an impossibly high standard for expanded access to HIV care for the vast majority of Africans who are poor, unemployed or without health insurance.

Finally, treatment with anti-retroviral drugs helps prevention efforts. There is little incentive for people to get tested for HIV if there is no treatment. An HIV-negative result is a prime opportunity to deliver prevention messages; for a positive test the prospect of treatment increases awareness, removes stigma and encourages safe practices — all of which reduce the rate of new HIV infections.

There is now unstoppable momentum to address the challenge of how to expand access to HIV care and treatment in low- and middle-income countries. For the least-developed nations, including all of sub-Saharan Africa, heavily discounted drugs are available. For middle-income countries, such as Brazil, continued local manufacture of anti-HIV drugs or importing of generic versions is to be allowed until the crisis is controlled.

The UN meeting was intended to intensify national and international action, and to mobilize the billions of dollars needed to combat the epidemic. It was successful in the first respect, particularly in terms of commitments made to specific prevention targets. But the breakthrough was the agreement that the Global AIDS Fund should also cover treatment. We hope that the G8 leaders will respond not just with more money but by mandating the fund to tackle treatment. ■

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