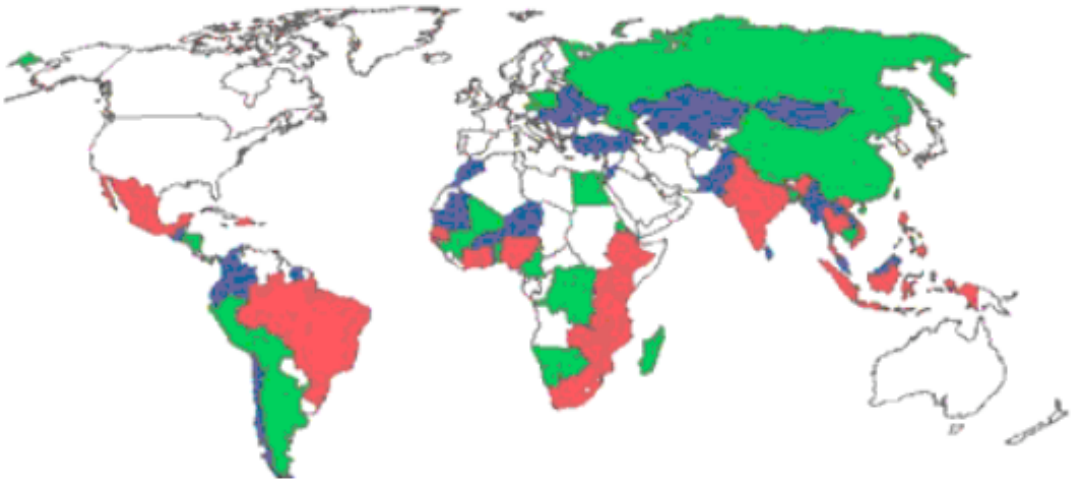
Exploring the American Response to the Global AIDS Pandemic

by Derek Link with Mark Harrington



I'm not someone who blames the West for everything. I do believe that the great moral test of our time is how the rich countries respond to the AIDS crisis. But AIDS has not been high on the agenda of the highly affected countries, so this is a ... failure for the countries of the north and for the countries of the south. At the moment, a total of $300 million is being spent on prevention and awareness for the whole continent [of Africa]. We need $2 billion to do this.

–Peter Piot
New York Times Magazine, 4 June 2000

More resources will be required. Here, above all, American attitudes need to change. Technological leader and beacon of hope for much of the world, the United States has been the meanest donor of all. It musters a trifling $5 per American each year in budget assistance for the poorest countries.

–Jeffrey Sachs
The Economist, 24 June 2000

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Section 1: Introduction

Ten years ago, when the AIDS death toll in the United States crossed 100,000, few paid heed to a grim prediction by the World Health Organization (WHO) that "by the year 2000, 40 million persons may be infected with HIV" (CDC 1991). In the rich world, AIDS was seen as a serious but smallish disease, restricted to gay men, drug users, hemophiliacs, and the innocent offspring of all three. In the developing world, just a few courageous voices were warning about the silent spread of a deadly new plague. Today WHO's grim prediction has come true. Africa is in crisis. In some countries, a quarter or more of the adult population is infected. Millions have died, and millions more will die, leaving their societies trapped in poverty, burdened with a generation of orphans, and facing demographic catastrophe. The grim statistics are not confined to Africa. Asia and the Caribbean face explosive HIV epidemics, while the nations of the former Soviet empire peer over the precipice of drug addiction, untreated sexual diseases, and unchecked HIV spread. HIV is out of control, and finally the world has begun to take notice.

In January 2000, the United Nations Security Council held a special session in which, for the first time, it identified a disease—AIDS—as a global security threat. Some American cynics have mocked this move as domestic political theater. But no serious observer denies that HIV is undermining nations and economies. HIV kills young people in their most productive years. In a growing number of countries, workers, teachers, nurses, civil servants, and others will perish in astonishing numbers. The backbone of civil society is threatened in many nations, and the threat remains uncontrolled.

The security threat is real, but only half the story. HIV began as an obscure simian virus in equatorial Africa in the first half of the twentieth century and, within fifty years, had spread throughout the world. The forces that brought HIV to America in the 1970s—world travel, globalization, and urbanization—are accelerating. One need only look at the number of variant strains of HIV-1 spreading worldwide, at the outbreak of West Nile Virus in New York, or at the number of HIV-2 cases now emerging in New York and other gateway American cities to see how the forces of globalization are adding new ingredients to the world's microbial soup. When HIV remains unchecked in large regions of the globe, as it does now, no country is safe, including America. Fighting AIDS abroad is in America's own interest.

In response, the U.S. government now proposes new initiatives to fight the global spread of AIDS. We welcome them. But the U.S. has conducted global AIDS programs for more than a decade, and related international health programs for even longer. Any new AIDS funding builds on this foundation. Yet no analysis exists of the present U.S. role in the global AIDS pandemic. Without review and evaluation, any new programs run the risk of being scattershot and ineffective. In other words, recent good intentions may, without good planning and evaluation, lead nowhere. If the U.S. cannot summarize its current programs accurately, how can they grow effectively?

This report is a first, imperfect documentation of what the U.S. government spent in 1998 on international HIV programs. We hope this analysis can serve as a foundation, a basis for decision- making, a hopeful call to action. Inside, we describe what the U.S. government has done, so others may better answer what can and should be done. We hope others in the developed, democratic world take this report as a model to press for more and better responses from their governments. We hope people in poorer countries use this report to navigate the U.S. government and become full partners with the American effort.

Section 2: Summary Findings

Three U.S. government agencies formed the core of the American response to the global AIDS pandemic in 1998. The U.S. Agency for International Development spent $123.7 million on international AIDS programs in 1998, including a $23 million contribution to the United Nations AIDS program, the single largest component of that international agency's budget. The National Institutes of Health spent $52 million on international AIDS research projects in 1998. The Centers for Disease Control spent $9 million on international AIDS programs in 1998.

The U.S. government supported 463 HIV/AIDS projects in 79 developing nations. The U.S. response reached 28 African countries (36% of the budget). Twenty Asian nations were included in the U.S. response (15% of the budget). Nineteen Latin American and Caribbean were involved (12% of the budget). Twelve Eurasian countries (1% of the budget) received AIDS support from the United States government, none at an intensive level. The U.S. also supported 53 projects that were global, multi-region, or undefined in scope, reaching many countries across regions. These global programs accounted for about 34% of U.S. funds.

Table 1: U.S. 1998 International HIV/AIDS Activities by Region & Funding Agency

Region	USAID	NIH	CDC	Total
Africa	$ 47,997,000	$13,686,920	$5,699,740	$ 67,383,660
Asia/Near East*	$ 22,467,000	$ 4,001,001	$2,536,577	$ 29,004,578
Latin America/Caribbean	$ 15,894,000	$ 6,291,197	$ 0	$ 22,185,197
Eurasia**	$ 2,243,000	$ 867,453	$ 0	$ 3,110,453
Global***	$ 35,124,000	$27,511,184	$ 800,000	$ 63,435,184
Total	$123,725,000****	$52,357,755	$9,036,317	$185,119,072

* Includes North Africa;
** Eastern Europe & former Soviet Union;
*** Includes programs for which specific country-level funding could not be obtained.
**** Includes $23 million to UNAIDS

We describe the U.S. international HIV/AIDS 1998 program activities in nine categories. The largest (31% of the total budget) was the development of health systems infrastructure by the U.S. Agency for International Development (USAID) in 36 countries. USAID supported HIV prevention programs (20% of the budget) in 37 countries. Support for the United Nations AIDS Program took up 12% of the total budget. NIH-funded academic research projects (11% of the budget) in 37 countries. All three agencies funded epidemiology and surveillance projects (8% of the budget) that operated globally and in 12 countries. The National Institutes of Health (NIH) supported a vaccine discovery program (7% of the budget) in ten countries. NIH trained researchers (5% of the budget) from 43 countries. USAID developed community and governmental leadership (3% of the budget) in 29 countries. NIH supported reference labs and other research resources in the U.S. (3% of the total budget) that served global needs.

Other U.S. agencies played a role in the global AIDS response, but that role is small and, in some cases, unclear. The most important example is the Department of Defense (DOD), which maintains an international HIV research program. DOD officials refused to cooperate with this report. Other agencies with an international presence are the departments of state, labor, and commerce. The limited information we could obtain about these programs is summarized in section 8 but is not otherwise included in this analysis. The U.S. international HIV program is not direct aid to foreign governments or agencies. In 1998, the U.S. international HIV program included the direct overseas programs of twelve divisions of the U.S. government (cf. Table 8), support for the United Nations, and contracts and grants to 48 universities or NGOs, all but three of which are located in the U.S. (cf. Table 7).[1]

Most contracts and grants in the U.S. international program were concentrated at seventeen academic or non-governmental organizations (sixteen American and one British). These organizations all received more than $1 million from the U.S. government for international HIV programs, and collectively received 43% ($79.8 million) of the total program. The single largest contractor was Family Health International, a Virginia-based NGO, which alone received $25 million. Johns Hopkins University received $4.4 million, more than any other academic institution (cf. Table 7).

The U.S. international AIDS program is a small part of larger initiatives in global health and research. In 1998, the NIH international AIDS research program was 2% of the $1.8 billion AIDS research program. CDC's international AIDS program was less than 1% of its overall AIDS program. Even at USAID, AIDS was just a fraction of that agency's development agenda. AIDS programs accounted for less than 9% of USAID's entire budget, and less than 22% of its health programs. In countries where USAID operates missions, AIDS funding typically never exceeded 5% of the total mission budget. In those few cases where the relative portion of AIDS funding was higher at a USAID mission, the absolute funding for AIDS and other activities was generally low. As a portion of the U.S. domestic $8.7 billion AIDS budget, the entire U.S. international program barely reached 2%.

While the U.S. is the largest contributor of AIDS-related development assistance in absolute terms, other rich countries spend far more when population and gross national product are taken into account. The Netherlands, Norway, Sweden, Denmark, Australia, Canada, the U.K., and even Belgium contributed more on this adjusted basis (UNAIDS 1999). However, these comparisons do not include funding for AIDS research, an area in which the U.S. clearly spends far more than any other country. These two factors should be considered when comparisons are made.

This year, the U.S. proposed its new Leadership and Investment in Fighting an Epidemic (LIFE) initiative. Funded with $100 million in new or redirected resources (opinions vary), LIFE will reprogram $54 million for international AIDS activities to USAID, $26 million to CDC, and $10 million each to the Departments of Defense and Labor (ONAP 2.8.00) in fiscal year 2001. While supportive of this new initiative, we would support inclusion of new resources for NIH as well, which has a substantial ($53 million) investment in international research, as well as significant expertise and infrastructure. The LIFE initiative represents a minimum acceptable increase in U.S. support for international HIV/AIDS activities and we hope resources continue to increase substantially.

Information from U.S. agencies ranged from clear to chaotic to non-existent. The lack of clear information hampers not only this analysis but any attempt to understand and evaluate the successes and limitations of the U.S. program. If the program cannot be defined, how can anyone know if it succeeded? These findings should be viewed as a first step, an exploration of the U.S. government's emerging response to the global AIDS pandemic, and a call to action for the future.

Section 3: Recommendations
a. General Recommendations

1. **Provide clear information.** The U.S. response to the global AIDS pandemic is growing. To ensure that this growth is efficient and effective, the U.S. government should commission an external review of its international AIDS program. It should also release comprehensive periodic updates, with full budget information, about its international AIDS programs. A preferred option would be for the Office of National AIDS Policy (ONAP) to produce an annual report that could serve as a guide to program growth and evaluation.
2. **Be transparent, accountable, and organized.** Greater transparency and accountability is needed. After reading thousands of pages of material, we are still left with many questions. All agencies should implement an information system that can be used to evaluate programs, to assure that investments in AIDS programs are targeted, efficient, and effective, and to describe to the American people their government's response to the global AIDS pandemic.
3. **Coordinate the response, with involvement from scientists and NGOs.** Three U.S. agencies are involved in the international AIDS programs in a major way. Other agencies, such as the military, the labor department, and the state department also have international programs. We found no evidence these agencies regularly discuss their international programs with each other. Regular interagency meetings should be established to plan and evaluate the American response. Representatives from the universities and NGOs involved in the U.S. international effort should participate in an external planning and evaluation process. The evaluation should include testimony from NGOs, researchers, clinicians, and advocates from the U.S. involved in international activities, and from developing countries.
4. **Evaluate the overall U.S. international AIDS program.** The U.S. program needs to have a set of overarching goals. Resources need to be deployed where they are most needed, and where they can achieve the biggest impact. (Why, for instance, did the epidemic in Indonesia receive more U.S. resources than that in Zimbabwe, which has one of the world's direst epidemics?) To accomplish this, a detailed, qualitative analysis of what is being done now, and what should be done, is needed. This evaluation should be carried out in concert by the U.S. agencies involved, with input from scientists, NGOs, and developing countries. It should identify clear priorities and ensure that resources are deployed to accomplish them.
5. **Increase the U.S. international AIDS budget in a big way.** As Jeffrey Sachs put it in The Economist, the U.S. is "the meanest donor of all" (6.24.2000). The U.S. gives far less development assistance (HIV related and general) than many other rich countries on a population and GNP adjusted basis. The U.S. should give more because we know resources matter. In Uganda and Senegal, for example, explosive epidemics have been blunted due to effective interventions. They are the only two countries with declining incidence in Africa. More resources can be a part of making this a reality worldwide. We support the administration's current proposal to increase support for international AIDS activities by $100 million in fiscal year 2001 as a minimum acceptable increase; ideally the Congress should increase the USAID budget by $725 million, the NIH AIDS research budget by $301 million, and the CDC budget by $305 million (domestic and international), in accordance with the recommendations of the National Organizations Responding to AIDS (NORA 2000).
6. **Keep the AIDS research program robust.** AIDS research is a crucial part of the global AIDS strategy, and one where the U.S. makes the biggest contribution. Political leaders and community advocates need to recognize the importance of AIDS research in fighting the epidemic worldwide. NIH should continue increasing its support for international AIDS research as the overall NIH AIDS research budget rises, along with that of NIH as a whole.
7. **Double U.S. support for the UNAIDS program now.** In the short term, the U.S. should at least double its annual contribution to UNAIDS from $23 million to $46 million. The American government should advocate that other developed nations do the same. This move should be a first step in more significant increases for UNAIDS over time.
8. **Don't politicize international AIDS.** International AIDS should not become a domestic political football. The American response should be about the health of the world and the ethical obligations of the world's strongest and richest country. The current administration has taken some bold recent steps, and some congressional Republicans have shown leadership

as well. Both parties in Congress, and whoever wins the White House this year, should commit to a sustained, bipartisan, and vigorous U.S. international AIDS program.

9. **Do not let U.S. international AIDS funding become domestic pork.** When a program area is slated for major increases, as the international AIDS budget is now, the temptation always exists in Washington to "spread the wealth around" among numerous agencies and departments. This is particularly worrisome with international AIDS because so little information exists on the current nature of the American response, no one agency is clearly in charge, and no organized domestic constituency is prepared to monitor the effectiveness of new programs. It would be unethical, short-sighted, and stupid to treat new funds for international AIDS as a fungible windfall. For example, why does the administration propose giving the labor department $10 million in its new international initiative, while NIH, which has a long track record and an important existing program, is slated to receive no new funds? No new money should be allocated to any federal agency for international AIDS unless that agency clearly articulates a public plan for those funds.
10. **Lead.** The U.S. government's response to the global AIDS pandemic does not take place in a vacuum. On one hand, the U.S. should lobby other developed democratic nations to increase their support for international AIDS programs. On the other hand, the U.S. should make global AIDS strategy a central part of its diplomacy with poorer countries. Even though some poor countries face AIDS epidemics of staggering proportions, their governments do not always acknowledge the scope or even the existence of the epidemic because of corruption, denial, war, and lack of democracy. As the world's strongest country, the U.S. can thrust AIDS into the center of diplomatic discussion.

b. Agency-specific Recommendations

USAID

11. **Strengthen USAID.** USAID conducts and supports vital, front-line work to prevent and manage AIDS epidemics in countries around the world. This work is essential, and should be strengthened and expanded, after undergoing a comprehensive external review.
12. **Clean up the mess in USAID's accounting system.** USAID's has the worst budget information system we have ever seen. They provided voluminous material, none of which appeared internally consistent. USAID needs to develop a clear, comprehensive, and complete annual report of its international AIDS programs.
13. **Develop criteria for program evaluation with outside experts, and publish the results.** USAID had no clear system for measuring the success of its programs. What are the metrics? Who will generate them, and who will validate them? This is particularly important because several major USAID programs expire in 2002, just as substantial new resources become available. What evaluation is planned or ongoing? Will there be any kind of external peer review? What is the public role? What will the process be for planning the renewal or redirection of the prevention program contracts?
14. **Communicate better.** The U.S. response to the global AIDS pandemic suffers because USAID can not describe its work to the American people. Health systems support and prevention programs are the two largest pieces in the USAID international AIDS program, and they are essential elements of a response to the global pandemic. Yet USAID can't explain exactly what was funded, when, where, and whether it worked, so it will not be able to redirect resources or reshape programs when necessary, and it will be harder to sustain public and congressional support. Furthermore, we do not understand how USAID's bureaus relate to each other, how USAID relates to other government agencies, how it relates to other bilateral donor programs, how it relates to other UN/multilateral programs, or precisely how it interacts at the country level with local governments, health systems, and communities. These are the questions USAID needs to answer.

NIH

15. **Conduct implementation research.** NIH, in conjunction with CDC and USAID, should conduct research on strategies to implement prevention and treatment interventions in

developing countries that lack infrastructure and resources. Areas include HIV diagnosis, prevention of mother-to-child- transmission, treatment of opportunistic complications, and treatment strategies such as pulsed therapy or short-course HAART regimens. Which treatment, prevention, and diagnostic strategies are appropriate for impoverished Africa and which are appropriate for middle-class Brazil? NIH should help to address these questions.

16. **Involve international researchers and advocates.** NIH has made international research a priority in its strategic plan. It should ensure the involvement of international researchers and treatment advocates, including those from developing countries, in the development and implementation of its international AIDS research programs.
17. **Improve data systems.** NIH institute-level definitions of AIDS-related research have greatly improved since the 1996 Levine Committee report. The NIH AIDS Research Information System (ARIS), while not perfect, is a better database than others we reviewed. However, NIH institutes often provide contradictory and incomplete information about their AIDS and international research activities; the NCI intramural program remains particularly problematic in this regard.
18. **Expand epidemiology.** Emerging issues in epidemiology and surveillance include HIV-1 and HIV-2 coinfection, the transmission of drug-resistant HIV strains, and coinfection with HIV-1 and other infections such as tuberculosis and hepatitis C virus.
19. **Coordinate natural history cohorts in developing countries.** There is a pressing need to identify existing natural history cohorts in developing countries, to coordinate them, and if necessary to expand them, in order to better understand the epidemiology of various opportunistic complications of HIV in countries and regions around the world.
20. **Conduct treatment research relevant to developing countries.** NIH should team up with other sponsors of HIV/AIDS treatment research working in developing countries to carry out treatment research relevant to a variety of epidemic, economic, and therapeutic settings. With the exception of interventions to reduce mother-to-infant HIV transmission, and of the CDC's Projet RETRO-CI in Côte d'Ivoire, which conducted a study of trimethoprim/sulfamethoxazole in Abidjan (Wiktor 1999), we found virtually no treatment research being supported by U.S. agencies. It is far past time to figure out how to make the substantial therapeutic advances of the past five years much more broadly available around the world.
21. **Increase support for training programs for researchers and clinicians from developing countries.** The Fogarty International Center's excellent training programs for researchers and clinicians from developing countries reach more places than any other U.S. program. They provide essential opportunities for researchers from north and south to work together, learn from each other, and apply science and technology in ways relevant to the places where the epidemic is occurring. These vital programs are small; both the size of the awards and their number should be increased.

CDC

22. **CDC has done an excellent job focusing on a few long-term projects.** The Centers for Disease Control and Prevention (CDC), with a small investment, has made major contributions to the international AIDS effort, ranging from epidemiology to treatment research (e.g., Bactrim studies in Côte d'Ivoire). Now, as it is slated for major increases ($26 million in FY 2001), the CDC should conduct an external review to ensure that the new resources – which should not come from badly-needed domestic AIDS programs – are deployed as effectively as possible.
23. **Tell us more, and coordinate.** CDC provided accurate and complete information. They should produce an annual report and budget describing their international AIDS programs on the Internet every year. CDC should coordinate its international AIDS activities with those of other agencies.

DOD and Other U.S. Agencies

24. **Communicate and evaluate.** DOD needs to provide more accurate, comprehensive, and detailed information about its role in HIV-related activities, both domestic and international, and this information needs to be made publicly accessible. In addition, the DOD should

review its research program to ensure it is focused, non-duplicative, and coordinated with other U.S. agencies and their work.

25. **Collaborate.** As the three main agencies develop systems for collaboration, other agencies should participate. We did not identify significant international HIV/AIDS activities carried out in 1998 by other U.S. agencies, with the exception of interagency agreements and contracts carried out by the U.S. Bureau of the Census and the Peace Corps. However, as part of the annual report on U.S. international HIV/AIDS activities mentioned in recommendation #1, ONAP should ensure that all agencies involved internationally are described and budgeted.

Section 4: Materials and Methods

This report analyzes how much money the U.S. government spent in 1998 on HIV projects in the developing world, which agencies administered these funds, how the agencies used the money, and where the U.S. was involved. To answer these questions, we analyzed budgetary and other data from USAID, NIH, and CDC. Section 8 gives a brief description of additional AIDS projects carried out by DOD—from which we were unable to obtain sufficiently detailed program information—and by other government agencies.

This report examines budget data from fiscal year 1998, the most recent year from which complete data were available. All the agencies and programs analyzed here operate on multiyear budget cycles. Some funds are carried over from year to year to meet ongoing obligations. This report did not analyze "carry-over" funds because they are expressed only in aggregate without detailed information on how they are used. We chose 1998 as our period of analysis because it immediately precedes the current expanded focus on international AIDS. The programs funded in 1998 represent the baseline international HIV infrastructure developed by the U.S. government.

The three agencies analyzed in this report have distinct roles in the world, and each operates in a different domestic political climate. The medical research budget at NIH has risen consistently over the last decade, the CDC budget has remained flat (although it is now rising), and USAID's budget experienced declines. Each agency reports budget information in a different format with varying clarity and consistency, and the two with the largest international HIV budgets, USAID and NIH, give most of their funding away to universities, non- governmental organizations (NGOs), or other government agencies in the form of contracts and grants. Synthesizing information like this into a coherent picture posed some challenges, required assumptions, and imposed limitations.

Because it is so difficult to obtain a clear and complete picture of the U.S. international AIDS program, we have tried to look at the available data in a number of different, interlocking, cross-cutting ways—by funding agency, by contractor and grantee, by country and region, by program area, by amount of project funding when that information is available, and by number of discrete projects. Nonetheless, this report represents only a starting point for understanding the diverse AIDS activities carried out in developing countries with U.S. government funds.

The U.S. funds three kinds of programs - 1) intramural programs, 2) inter-agency programs, and 3) extramural programs. Intramural programs are funded and operated directly by U.S. government agencies (cf. Table 8). Examples of such programs include research studies conducted by NIH's intramural laboratories, the programs of USAID's missions, and all CDC activities. Inter-agency programs are funded by one U.S. agency, but operated by another agency or by the United Nations (cf. Table 8). Examples include USAID-funded programs in the Peace Corps and the Bureau of the Census, NIH-funded research projects conducted by the U.S. military, and the U.S. contribution to the United Nations AIDS Program, UNAIDS. Extramural programs are funded by a U.S. agency and carried out by a contractor or grantee, typically a U.S. university or NGO (cf. Table 7). USAID and NIH fund 48 contractors and grantees, all of which are based in the U.S. with three exceptions: the International AIDS Alliance, which is in London, and the University of West Indies and the Caribbean Epidemiology Center, both of which are in Trinidad.

The quality and form of the information varied by agency. Detailed USAID budget information is relatively inaccessible to the public. Upon request, USAID staff supplied in paper form budget data, including internal administrative allocations, reports and budgets from seven contractors, financial portfolio summaries, and other documents. We interviewed USAID staff, examined the agency web site, and reviewed the 1998 and 1999 congressional testimony of USAID officials. NIH staff provided in electronic form a description of 118 NIH grants, contracts, and internal programs that were coded by NIH staff as both "HIV-related" and "international". We interviewed NIH staff and analyzed budget reports for specific NIH programs. CDC publishes no distinct international budget, but CDC staff supplied in electronic form a detailed summary of its international programs.

Understanding USAID's budget presented the greatest challenge. USAID's allocation of HIV funds

through its internal structure could be determined, and the amount it awarded in contracts could also be determined. However, the precise relationship between these two figures was never entirely clear. Internal USAID funds from all its administrative units were aggregated to support seven major global contracts, which were managed by the agency's global bureau. From the information available, we could determine how much HIV funding remained for internal USAID programs after the funding was aggregated for the contracts, but we could not determine how much remained at any specific administrative unit. The major limitation of this analysis is that the USAID budget, excluding global contracts, can be explained only in aggregate terms.

The NIH presented a different set of challenges. The Office of AIDS Research (OAR) at NIH supplied budget information on grants and contracts coded as "international" and "HIV-related." These two categories are not exclusive. A grant might be coded as 10% HIV-related and 30% international, and so on. This report analyzed a grant based on its total funded amount, and included it for analysis if it was coded as HIV-related and international at any level.

The NIH definition of "international" is different from ours. In our analysis, "international" refers to programs and research taking place in or involving researchers from developing countries (for our purposes, those not belonging to the Organization for Economic Cooperation and Development, or OECD, which comprises the world's richest 29 countries). NIH codes all contracts or grants that are awarded to historically minority institutions in the U.S. or to those in Alaska, Hawaii and Puerto Rico as international. NIH also funds research projects at academic institutions, such as Oxford University, which are undeniably international but which are unrelated to the U.S.'s response to the HIV epidemic in the developing world. Some NIH projects also seem to be coded as international in error. Of 118 grants and contracts supplied by NIH, 76 met our criteria for an "international" project.

A major goal of this analysis was determining the country-level funding and activities of the U.S. government, which proved more difficult than we had anticipated for a number of reasons. USAID programs took place both through missions at the country or regional level and through large NGO contracts with multiple projects operating in multiple countries and regions. From the information we had, it was impossible to correlate country-level activities of the NGO contracts with any specific dollar figure. We know which countries they operated in, we know the total budget, but we do not know the exact budget for each project in each country.

To describe the degree of USAID involvement in any country, two different methods were used. First, all country-level financial information that was available, (i.e., original USAID administrative allocations to individual missions and bureaus before these funds were aggregated to pay the contracts) was recorded. Although these figures do not account for USAID's seven large NGO contract budgets, these funding levels were assumed to have a relationship to actual funding levels among countries. Second, all contract and grant reports were examined, and every country-level activity reported in them was recorded as an "international HIV project." For instance, a single contract might operate in 21 countries and report 105 discrete projects. Each of these projects was recorded as assigned to the appropriate program area and country. We did not assign budget information to such projects, however, since accurate data were not available.

NIH grants and contracts may also involve one country, or several countries and regions. When the NIH project took place in only one country or region, we assigned its budget to that country or region, and all reported research activities were recorded and classified. When an NIH project occurred in multiple countries or regions, we have itemized the number of projects by country, but have been unable to disaggregate funding on a country-by-country basis. We thus tabulated these funds on the "global" activities budget line, or, when the project took place in only one region (e.g., Africa) on the budget line for that region. CDC activities were all directly sponsored by CDC and they provided specific country-level project and budget information. Describing accurate and comprehensive funding allocations to individual countries was not possible in this analysis for reasons discussed above.

From all the information reviewed, we identified 516 discrete international HIV projects. Of these, 463 projects were country- or regional-level projects, and 53 were "global," which means that they occurred in

more than one region, or were truly global but otherwise unidentifiable.

Although the projects identified through this method are unequal in size (i.e., some projects are larger and more extensive than others), this approach did allow a description of the geographic scope of all activities, including activities in countries that receive no direct American funding. The number of international HIV projects identified in this analysis underestimates the actual number because some contracts, such as that for the U.S. Bureau of the Census, did not identify where the activities took place.

This report groups the U.S. government-sponsored international program into nine broad thematic categories, described in Section 6. We established these categories solely for this analysis; they do not reflect internal coding schemes employed by the agencies. These categories were based on a careful reading of program descriptions and contract reports, allowing us to make descriptions across agencies. However, since information from each agency varied in detail, the categories have limitations. For example, the post- contractor budget for USAID missions was categorized as health systems support because most of the reported activities of USAID missions in congressional testimony described this type of activity.

This analysis attempts to describe the size and nature of the U.S. role in the fight against the global HIV pandemic at one point in time. The information used for this analysis permitted a detailed examination of the U.S. role, but sometimes the information was inconsistent and unclear. Budgetary information may need revision, and the number of U.S.-funded HIV projects was probably greater than that described in this report. The report is, however, the first comprehensive attempt to describe the baseline administrative and fiscal structure of the U.S.-role across all federal agencies. With luck, this can help inform current debates about new U.S.-sponsored HIV initiatives for the developing world.

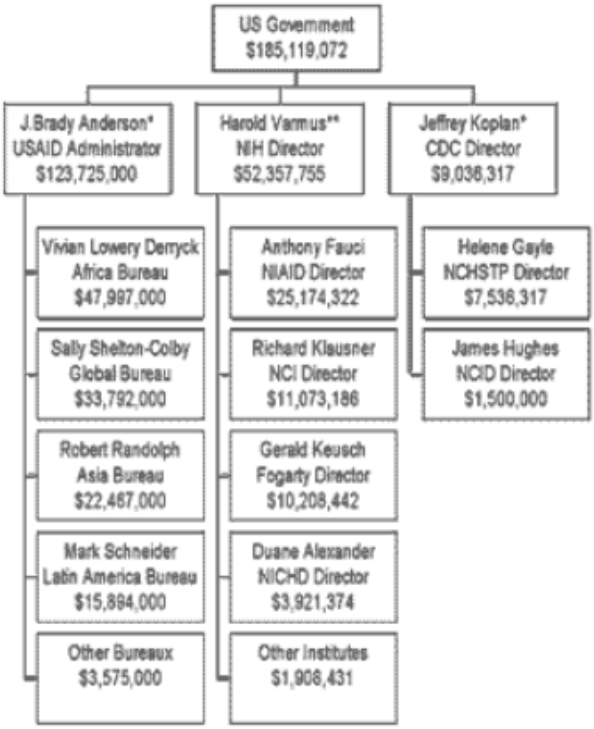
Table 2: U.S. International AIDS Funding by Agency, FY 1998

USAID		$123,725,000	66.8%
Africa Bureau	$47.997,000		25.9%
Global Bureau	$33,792,000		18.2%
Asia bureau	$22,467,000		12.1%
Latin American bureau	$15,894,000		8.5%
Other bureaus	$3,575,000		1.9%
NIH		$52,357,755	28.2%
NIAID	$25,174,322		13.5%
NCI	$11,073,186		5.9%
FIC	$10,208,442		5.5%
NICHD	$3,921,374		2.1%
Other institutes & centers	$1,908.421		1.0%
CDC		$9,036,317	4.8%
NCHSTP	$7,636,317		4.1%
NCID	$1.500,000		0.8%
Total U.S. Int'l AIDS Program		$185,119,072	100%

USAID = U.S. Agency for International Development; NIH = National Institutes of Health; NIAID = National Institute of Allergy & Infectious Diseases; NCI = National Cancer Institute; FIC = Fogarty International Center; NICHD = National Center for Child Health & Human Development; CDC = Centers for Disease Control & Prevention; NCHSTP = National Center for HIV, STD and TB Prevention; NCID = National Center for Infectious Diseases.

Section 5: U.S. Government Funding for International HIV Programs

Figure 1: Major Agency Structure and Leadership



* Anderson was not yet USAID Administrator during the period of this analysis, nor was Koplan at CDC.
** Varmus is no longer NIH Director; Ruth Kirchstein is acting director.
NOTE: This chart lists only major administrative units with defined programs, humanitarian response, and program coordination bureaus at USAID ($3,575,000 in AIDS funding collectively) and mental health, research resources, and dental institutes at NIH ($1,908,431 in AIDS funding collectively) are omitted because their programs are ancillary.

a. U.S. Agency for International Development (USAID)
USAID, the agency with the largest international HIV program, is a primary instrument of American diplomacy with the developing world, dispersing billions in foreign assistance each year for economic, political, and health programs. The $123 million 1998 HIV budget at USAID existed within that agency's broader effort on world population, health, and nutrition. Of that, $23 million went to UNAIDS and $100 million was directly programmed by USAID. Most HIV projects supplemented or operated within existing USAID-funded prenatal, family planning, primary care, and sexually transmitted disease (STD) programs. Through USAID alone, the U.S. contributed more to the developing world for HIV than any other country.

USAID is organized into four regional bureaus that operate missions and programs in selected developing countries around the world. Each regional bureau is further divided into country-level missions. In 1998, 66 USAID missions were involved in USAID's population, health, and nutrition programs, 40 of which received discrete HIV funding. The Africa bureau was at the center of the USAID HIV program. It received more HIV funding than any other bureau, and it maintained 19 country-level missions involved with HIV projects. The global bureau provided support and direction to the overall USAID effort, in particular through the management of seven large, multi- country contracts awarded by the agency to non-governmental organizations. The global bureau played a particularly important role in USAID's HIV program.

USAID's Asia and Near East Bureau had the second largest program, operating health programs in 14 country-level missions, 8 of which received HIV funding. The Latin America and Caribbean bureau

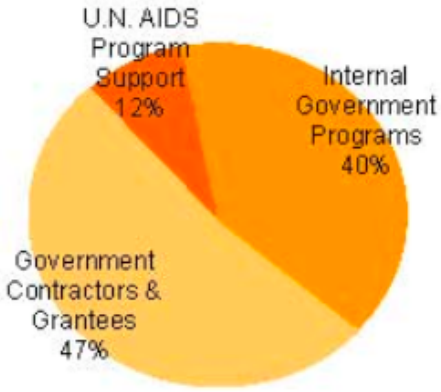
operated health programs at 13 country-level missions, 10 of which received HIV funding. The Eurasia bureau operated health programs through country-level missions in 18 countries, 4 of which received HIV funding. Other bureaus at USAID that received HIV funds include the humanitarian response bureau, which operates disaster relief programs, and the policy and program coordination bureau, which plays an administrative role at USAID's Washington headquarters. A full description of USAID mission-level HIV budgets is in Table 9.

b. National Institutes of Health (NIH)
NIH is the world's largest funder of biomedical research. Its international HIV/AIDS program is a small part of a much larger $1.8 billion HIV research program. NIH is organized into 26 institutes and centers, including the Office of the Director, which includes the Office of AIDS Research (OAR). Four NIH institutes played a major role in the international HIV program in 1998. The National Institute of Allergy and Infectious Diseases (NIAID) had the largest program, followed by the Fogarty International Center (FIC), the National Cancer Institute (NCI), and the National Institute of Child Health and Human Development (NICHD). Three other NIH institutes, the National Institute of Dental Research (NIDR), the National Institute of Mental Health (NIMH), and National Center for Research Resources (NCRR) used small portions of their HIV budgets to support the international initiatives of the four primary institutes. During 1998, NIH operated HIV programs 51 developing countries at a cost of $52.3 million.

c. Centers for Disease Control and Prevention (CDC)
CDC is the U.S.'s domestic health monitoring and disease prevention agency. Two centers at CDC, the National Center for HIV, STD, and TB Prevention (NCHSTP) and the National Center for Infectious Disease (NCID), conduct international HIV programs and provide technical assistance to other governments. During 1998 CDC spent $9.03 million on its international HIV/AIDS programs, operated HIV programs in four countries, and provided technical assistance to four others.

d. Intramural, Interagency, & Extramural Programs
These three agencies are, however, just the starting point for this analysis because most U.S. international HIV funds are given as grants and contracts to non-governmental organizations and universities in the United States. NIH plays a well-known role as a grant-giving institution. Eighty- eight percent of the NIH's international HIV budget is awarded as grants to universities and other academic institutions. USAID is also a grant-making institution. Fifty-three percent of its funds are awarded to NGOs and the UNAIDS program, with the remainder used by USAID missions around the world. CDC does not award grants for international HIV programs. Eighty-seven million of the U.S. international HIV budget is awarded to NGOs and universities, $23 million to UNAIDS, and $74 million to CDC, NIH, and USAID. Table 7 itemizes all contractors and grantees, while Table 8 itemizes all intramural and interagency programs funded by the three agencies.

Figure 2: U.S. International AIDS Funding—Intramural, Extramural, UNAIDS



Section 6: How the U.S. Government Spent the International AIDS Budget in 1998
Nine program areas characterized U.S.-funded international AIDS activities in 1998. These categories were based on program descriptions and other sources of information. While necessarily somewhat artificial and overlapping, these categories represented the clearest and most relevant classifications we could create. This section describes each program area its projects.

Figure 3: Major Activities of the U.S. Program

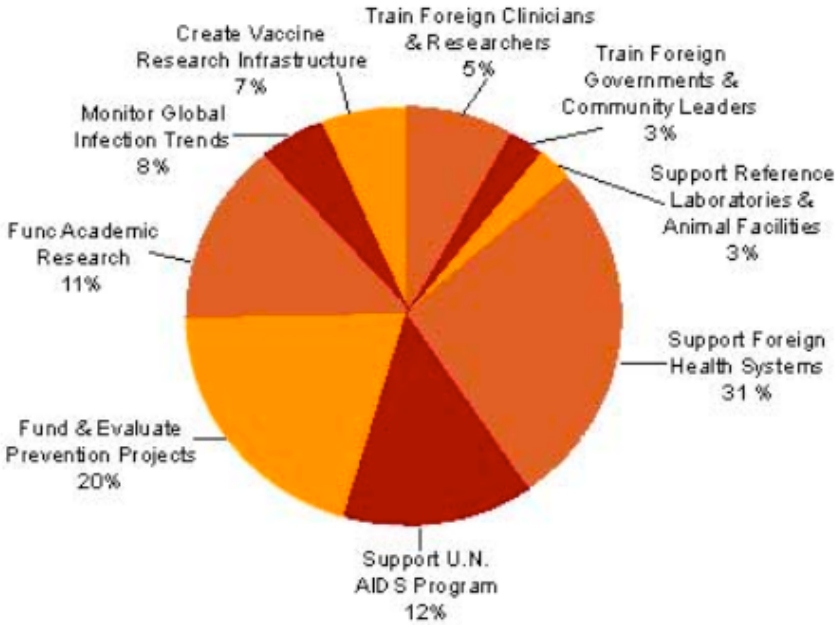


Table 3: U.S. International AIDS Funding by Program Area, FY 1998		
Health systems support	$57,125,000	31%
Prevention projects/program evaluation	$36,501,000	20%
UNAIDS program support	$23,000,000	12%
Academic research	$20,931,420	11%
Surveillance & epidemiology	$14,663,036	8%
Vaccine infrastructure	$12,539,719	7%
Training foreign clinicians/researchers	$ 9,704,399	5%
Developing government/community leadership	$ 5,749,000	3%
Supporting reference labs/animal facilities	$ 4,905,498	3%

a. Health Systems Support: $57,125,000 (31%)
Health systems support is a category used to describe the HIV activities of USAID missions around the world. Individual USAID missions comprised the single largest part of the U.S.'s international HIV program budget. Precise budgets for each mission could not be determined, so we examined congressional testimony from USAID officials describing the activities of each mission. Typically this testimony described the HIV activities of individual missions as part of an overall strategy for the control of sexually transmitted infections, maternal- child health programs, and support for primary health care systems. Some USAID missions, such as those in South Africa, Brazil, and India, maintain very good web sites with

comprehensive information about their HIV activities. These were the exceptions, however. The greatest limitation of our analysis was the lack of clear, complete information of USAID mission-level activities. Forty USAID missions reported direct HIV funds in 1998. Thirty-six missions reported HIV health systems support activities in USAID's congressional testimony. Four USAID missions that received HIV funding in USAID's pre-contractor budget-Russia, Belarus, Kazakhstan, and Uzbekistan-reported no HIV activities of any sort in their congressional testimony.

b. Prevention Projects & Program Evaluation: $36,501,000 (20%)
HIV prevention activities were supported by four USAID contracts and occurred in 37 countries.

HIV prevention in this context requires a broader definition that used domestically in the United States, including, for example, STD control, family planning, maternal health, orphan care programs, etc.

The largest prevention initiative was the IMPACT Project. Operated by Family Health International, an NGO located in Virginia, and funded by a USAID contract, IMPACT is a multifaceted program operating in 21 countries. In 1998, USAID spent $15 million on the IMPACT project. The annual contract report for the program lists 105 HIV prevention projects, ranging from technical assistance with governments and private groups to the direct operation of prevention programs. IMPACT primarily focuses on the operation, planning, management, and evaluation of interventions that reduce transmission of HIV through sex, including the treatment and prevention of other sexually transmitted infections that enhance HIV's spread. IMPACT also helps care for AIDS orphans, assists with epidemiological surveillance, organizes systems of HIV care for infected people, and provides assistance with HIV testing and blood supply safety. IMPACT is the largest of all USAID's contracts, and one of that agency's most important programs. The IMPACT contract is up for renewal in 2002.

USAID funds a $13 million contract with the Population Council, a New York-based NGO, called the Horizons program. Horizons is a multifaceted program operating in 23 countries. Horizons identifies components of effective HIV/AIDS programs and policies, tests potential solutions to problems in prevention, care, support, and service delivery, and disseminates these findings with a view toward replication and scaling-up of successful interventions. Horizons develops "best practices guidelines" for STD treatment and diagnostic programs, HIV testing sites, and other prevention activities in developing countries. The Horizons contract expires in 2002.

The AIDSMark program is another key HIV prevention initiative of USAID. Operated by Population Services International, an NGO located in Washington D.C., AIDSMark operates in at least seven countries, primarily in Africa and heavily in west Africa. In 1998, USAID spent $8 million on AIDSMark. AIDSMark is a social marketing program that promotes condom use, safer sex, and abstinence. It also subsidizes and distributes condoms and educational materials through community organizations and health clinics. This contract is up for renewal in 2002 as well. The Peace Corps received $236,000 from USAID for HIV prevention in 1998.

The Peace Corps program trains volunteers to conduct prevention workshops and provides them with HIV prevention materials. The Peace Corps contract describes 17 prevention projects in 12 countries.

c. UNAIDS Program Support: $23,000,000 (12%)
The U.S., through USAID, contributed $23 million to the United Nations AIDS (UNAIDS) program in 1998, 11% of the U.S. international HIV budget. The U.S. is the largest single contributor to the UNAIDS program. This analysis did not examine UNAIDS activities. Detailed descriptions of the UNAIDS program and its global activities are available at http://www.unaids.org.

d. Academic Research: $20,931,420 (11%)
We were pleased to find that NIH supports a large number of investigator-initiated academic research grants focusing on HIV internationally. Academic grants totaled $21 million in 1998, 10% of the total U.S. international HIV program. Seventy-six international HIV research grants were funded by NIH in 1998, 27 from the Fogarty International Center (FIC), 25 from NIAID, 13 from the NICHD, 6 from NCI, and 5 from NIMH. These grants were awarded to 38 universities, with Johns Hopkins, Harvard, University of

Washington, University of Alabama, Columbia, and Duke receiving the largest sums. (Vaccine research and infrastructure, and foreign clinician training programs, also academic and supported by NIH, are described in parts f and g below.) While most academic research was investigator initiated, NIH solicited grant applications for three major programs that play an important international role.

- The **Centers for AIDS Research (CFARs)** are multidisciplinary awards to universities with large HIV research programs. The CFARs coordinate and enhance HIV research within an institution. Four centers had discrete international programs totaling $2.2 million in 1998.[2]
- The **Fogarty International Research Collaboration Awards (FIRCA)** program supports small-scale (under $32,000 annually) collaborations between U.S. and foreign investigators. FIRCA grants are supplemental grants that allow American investigators who receive other sources of NIH support to collaborate with foreign investigators on research projects. In 1998, 23 FIRCA grants totaling $500,000 were funded for collaboration with researchers in developing countries.
- **The NIH biodiversity initiative**, only partially funded with AIDS dollars ($150,000 of AIDS funding in 1998), included six biodiversity grants supporting work to identify and catalogue microbial, plant, and animal species for biomedical research, particularly natural substances with disease-fighting properties. The biodiversity program operates in remote regions, surveying wilderness areas in Laos, Vietnam, Surinam, Madagascar, Cameroon, and Nigeria.

The remaining 43 academic grants were more traditional investigator awards, and they represented the bulk of the international HIV academic research grant portfolio (approximately $18 million in 1998). These awards included such projects as evaluations of school-based behavioral interventions in Indonesia, interventions in Kenya to prevent mother-to-infant HIV transmission in utero or through breast-feeding, basic studies of HIV strains found in developing countries, and analyses of Kaposi's sarcoma-related herpes virus (KSHV/HHV-8), which is endemic in parts of Africa. The NIH funded the HIVNET 012 study, which documented the ability of a single dose of nevirapine given intra partum to an HIV-infected woman, and a single dose given post partum to her newborn, to reduce perinatal transmission of HIV by 47% compared with AZT (Guay 1999).

The NIH codes all its research into "functional categories" for budgetary reporting and strategic planning purposes. In 1998, these international HIV research grants were coded in five functional categories: $8 million for natural history and epidemiology studies (primarily studies of HIV-2 and other HIV-1 strains); $4.7 million for therapeutic research studies (primarily mother-to-infant interventions); $2.8 for pathogenesis research; $1.4 million for behavioral research; and $1 million for vaccine-related research, such as assessing the feasibility of conducting vaccine trials in certain populations.

e. Surveillance & Epidemiology: $14,663,036 (8%)

The NIH, USAID, and CDC play important roles in helping monitor the spread of HIV worldwide. NIH, through NCI, supports extensive epidemiological investigations in the Caribbean and some parts of Africa. NCI conducts its program through its intramural Viral Epidemiology Branch ($700,000 in 1998) and through contracts with the Research Triangle Institute ($2.6 million), the Caribbean Epidemiology Center ($315,000) and the University of the West Indies ($680,000). NCI's focus on epidemiology in the Caribbean is a result of NCI's long-term presence there monitoring human T-cell lymphotropic viruses (HTLVs), retroviruses once believed related to HIV and endemic in the region.

USAID supported epidemiological work carried out by the U.S. Bureau of the Census ($1.35 million), which maintains a global database of worldwide HIV infection trends and provides technical assistance to other governments. The contract report for the Bureau of the Census did not describe the countries that received technical assistance in 1998, so the number of countries that are described as having epidemiology projects in this analysis is probably an underestimate of the true number.

CDC spent $9 million in 1998 on epidemiology projects in eight countries. Most international HIV work at CDC is organized by the National Center for HIV, STD, and TB Prevention (NCHSTP). That center's largest program is Project RETRO-CI, a collaborative research program with the Ministry of Health of Côte d'Ivoire. The $3.7 million program's primary purpose is to define the magnitude and characteristics of the HIV-1 and HIV-2 epidemics in that west African nation. RETRO-CI sponsored an important study

which showed that TMP/SMX, when given to HIV-infected tuberculosis patients in Abidjan, reduced mortality by 46% (Wiktor 1999).

The NCHSTP also had a $2.5 million collaboration with the Thai Ministry of Public Health to help improve understanding of AIDS and the dynamics of its spread, providing a scientific basis for intervention programs. The center had a collaborative relationship with the Ugandan Ministry of Health. The $400,000 Ugandan program provided technical assistance to the government and supported a resident virologist in Entebbe. The center also had an $800,000 technical and computer assistance program to the U.N., South Africa, Malawi, India, and Vietnam.

CDC's National Center for Infectious Disease (NCID) supported a $1.5 million research program in Kenya, supporting a hospital-based cohort study to examine the relationship between HIV infection and several tropical diseases, particularly in pregnant women.

f. Vaccine Infrastructure: $12,539,719 (7%)
One of the most important parts of the U.S. international HIV program is the creation of an international infrastructure to develop an effective HIV vaccine. The vaccine infrastructure was funded through two NIH mechanisms, with additional support from DOD (see section 8), which is not analyzed in this report.

Two NIH-funded contracts formed the core of the international vaccine effort. In 1998, the major contract was HIVNET, a $10 million program from NIAID administered by Family Health International (FHI). HIVNET has since been restructured into the Vaccine Trials Network (VTN) and the Prevention Trials Network (PTN). FHI was responsible for administering the international component of HIVNET, which also had a domestic component. FHI contracted with nine universities that ran twelve international field sites in ten countries.3 HIVNET's main purpose was the creation of an international infrastructure for the evaluation of an HIV vaccine. HIVNET was also involved in the search for topical microbicides, STD treatments, prophylaxis to prevent mother- to-infant transmission, behavioral risk-reduction strategies, and baseline seroincidence data. The other major NIH international vaccine contract was a $3 million award to the Fred Hutchison Cancer Center in Seattle, which provided statistical analysis and support for the international vaccine program.

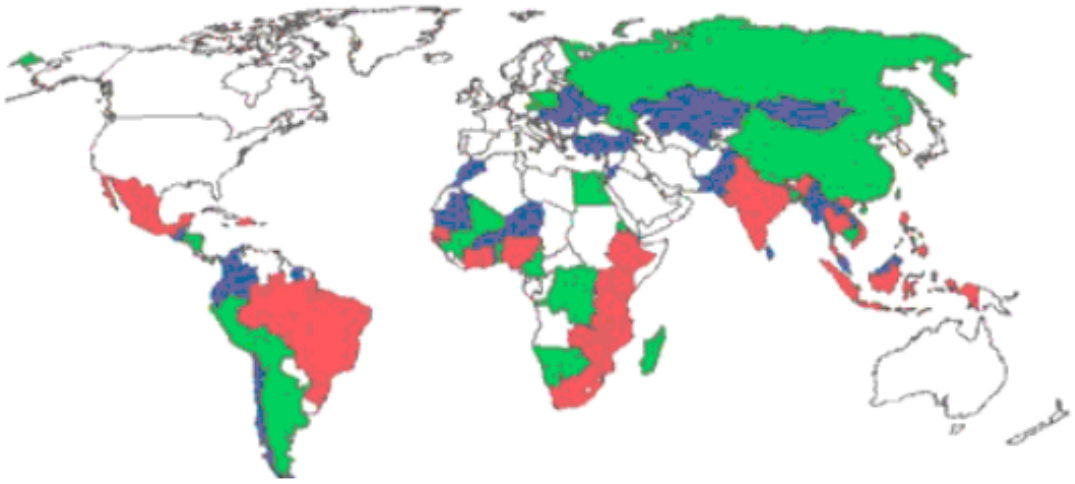
g. Training Foreign Clinicians & Researchers: $9,704,399 (5%)
The Fogarty International Center (FIC) at NIH funded a $9.7 million program that trained physicians and clinical researchers from around the world. Called the AIDS International Training and Research Program (AITRP), it provided awards to 17 American universities. The training typically involved bringing a foreign clinician to the university for a period of postdoctoral training in clinical care, biomedical research, or epidemiology. In rare cases, training sessions were held in foreign countries. A few universities in the program focused on one country or region. Case Western Reserve focused on Uganda, and the State University of New York in Brooklyn focused on eastern Europe. Most universities in the program, however, trained clinicians from many countries. This program reached more countries than any other U.S. international program. In 1998, clinicians from 43 countries participated.

h. Developing Government & Community Leadership: $5,749,000 (3%)
USAID funded a $2.4 million contract to the Futures Group, an NGO in Washington, D.C., that trains government officials to develop effective HIV-related policies. Specifically, the Futures Group contract focused on human rights and discrimination policy for HIV-infected people. Government officials from 23 countries have been trained through this contract. USAID funded a $2.9 million contract with the International AIDS Alliance to train community groups around the world. This contract developed grassroots networks in ten countries by training local community leaders. Located in London, the Alliance was one of only three contractors not located in the U.S. Both USAID contracts expire in 2002. USAID funded a $350,000 contract with the National Council on International Health, a Washington-based NGO, to organize community training seminars worldwide and to maintain a database of global community AIDS resources.

i. Supporting Reference Labs & Animal Facilities: $4,905,498 (3%)
NIH used $4.9 million to support four research infrastructure programs: $1.5 million for Frederick Cancer Research Center, a unit of the National Cancer Institute that conducts drug screening and other basic research; $2.3 million for lab supplies and other support services for NCI's Viral Epidemiology Branch and Genetic Epidemiology Branch; $807,000 for administration at the Fogarty International Center, and $180,000 for a simian breeding colony in Indonesia.

Section 7: Where the U.S. Is Involved in the Developing World

Figure 4: Countries with U.S.-funded AIDS Programs in 1998



red = most U.S. involvement; green = U.S. involvement; blue = less U.S. involvement (see text).

The U.S. was directly or indirectly involved in 79 developing countries in 1998. To describe the relative level of American involvement in each country, three categories were established.

- **Most U.S. Involvement.** Countries where the U.S. was "most involved" (shaded red) meet one of two criteria. They were either one of the top ten countries with U.S. funding targeted to HIV programs (based on pre-contractor USAID budgets, single-country NIH grants, or CDC programs) or they had at least ten HIV projects identifiable in the budget documents analyzed. Twenty-four countries met one of these two criteria.
- **Some U.S. Involvement.** Countries where the U.S. was "involved" (shaded green) received some level of directly targeted U.S. funds and had at least one HIV project operating in the country. Twenty-seven countries met these criteria.
- **Less U.S. Involvement.** Countries where the U.S. was "less involved" (shaded blue) receive no targeted funds but had recorded U.S.-funded HIV projects, or had identifiable HIV projects in the budget reports analyzed but received some level of direct U.S. funding for HIV programs. Twenty-eight countries met these criteria.

This section summarizes U.S.-funded HIV activities in the countries where the U.S. was most involved. Organized by region, it includes other available information on overall U.S. development assistance when that information was available.

a. African Countries with the Most U.S. Involvement

In 1998, the U.S. funded HIV programs, either directly or indirectly, in 28 African countries. Fourteen African countries met this report's criteria for most U.S. involvement. U.S. activities in all African countries are summarized in Table 9.

Table 4: African Countries with the Most U.S. Involvement				
Country	N projects	U.S. $ total	Population 1997	HIV prevalence/100 1997
Uganda	23	$9,573,775	20,791,000	9.51
Kenya	17	$5,770,896	28,414,000	11.64
Zambia	16	$5,708,581	8,478,000	19.07
Ethiopia	5	$4,885,000	60,148,000	3.17
Tanzania	13	$3,981,692	31,507,000	9.42
Côte d'Ivoire	4	$3,774,451	14,300,000	10.66
Mozambique	3	$3,730,000	18,265,000	14.17
Senegal	10	$3,653,607	8,762,000	1.77
Malawi	15	$3,095,520	10,086,000	14.92
Zimbabwe	14	$2,077,597	11,682,000	25.84
Nigeria	12	$1,930,000	118,369,000	4.12
South Africa	14	$1,733,137	43,336,000	12.91
Rwanda	14	$1,152,855	5,883,000	12.75
Ghana	11	$1,298,324	18,338,000	2.38
Africa total*	213	$67,383,660		

* Includes all African countries; see Tables 9a and 9b.

By almost any measure, **Uganda** was the largest recipient of American assistance for HIV control. Its epidemic is among the most intensively studied in Africa. The USAID mission budget for HIV was $4.9 million, 6% of its total $74 million budget. The U.S. was the third largest development assistance donor to Uganda after the U.K. and Denmark. Most U.S. aid focused on economic reforms in Ugandan agriculture. HIV funds were used to support maternal and child health programs and STD treatment in 12 of Uganda's 45 districts. The Population Council studied the best way to implement HIV testing, particularly for youth and in maternal health programs, trained workers to conduct HIV testing, and promulgated "best practices" guidelines to help infected mothers prepare their children for orphanhood. Uganda played a critical role in the search for an HIV vaccine, with two HIVNET vaccine research sites in the country operated by Case Western Reserve University and Johns Hopkins University. Uganda was the site of more U.S.-funded academic HIV research than any other developing country. A $1.5 million research project at Case Western Reserve examined the relationship between tuberculosis and HIV infection in Uganda and supported the Ugandan activities of that institution's Center for AIDS Research. A $1.4 million research program at Columbia University examined the role of STD treatment in HIV prevention and conducted seroprevalence and pathogenesis studies of Kaposi's sarcoma-related herpes virus (KSHV/HHV-8). A $1.1 million program at Johns Hopkins examined perinatal HIV transmission. A $200,000 research program at the University of Minnesota examined the relationship between Pneumococcus and HIV infection. A $90,000 Harvard research program examined the immunologic characteristics of infection with HIV-1 strains prevalent in Uganda. The CDC provided $425,000 to the Ugandan Ministry of Health for collaborative projects evaluating the use of antiretroviral drug therapy for AIDS patients, the epidemiology of Kaposi's sarcoma, HIV infection in discordant couples, and surveillance for variant HIV strains. Ugandan physicians received clinical training at Johns Hopkins University.

U.S. involvement in **Kenya** was extensive. The USAID mission budget for Kenya was $51.6 million, $3.5 million of which was designated for HIV. Japan was the largest international donor; the U.S. was fifth. The

USAID mission focused on political reform, agricultural reform, and HIV prevention. The mission's HIV program funded both the national health ministry and community organizations. The mission helped improve the delivery of family planning services, trained health workers, organized the supply of condoms and drugs for STD treatment, created public education campaigns on condom use, and developed malaria control programs. The Population Council assessed distribution strategies for male condoms, evaluated HIV testing strategies, particularly for youth and pregnant women, trained health workers to conduct HIV tests, and examined strategies to reach men who use unauthorized pharmacies to self-medicate for STDs. The Futures Group helped government officials develop HIV control strategies. The Peace Corps trained its volunteer in Kenya to conduct HIV prevention workshops. The University of Washington operated a $760,000 research program that examined HIV shedding in infected women and transmission through breast-feeding. The University of Washington trained Kenyan physicians. The University of California-Davis operated a $23,000 FIRCA grant that examined SIV in African green monkeys.

The CDC NCID had a $1.5 million hospital-based cohort study in Kenya that assessed vertical transmission of HIV and the relationship between schistosomiasis and malaria and HIV.

The U.S. was the seventh largest development aid donor to **Zambia**, providing 2% of total assistance. USAID's total budget for Zambia was $18 million, 16% ($3 million) of which was designated for HIV. Japan and the U.K. were the two largest developmental assistance donors.

Although the U.S. was a small donor to Zambia, it was the largest provider of HIV funds. The USAID mission used its HIV funds to support integrated children's health programs, to subsidize and distribute male and female condoms (averaging 550,000 male condoms a month in 1998, the highest per capita rate in Africa), and to develop programs for AIDS orphans. The Population Council examined the behavioral impact of caring for a sick elder on young people, examined various STD control strategies, examined the practicality of HIV testing during pregnancy, and promulgated best practice guidelines on HIV testing and HIV stigma and discrimination. Zambia had an HIVNET vaccine research site operated by the University of Alabama. Two major academic research programs operated in Zambia. A $2.2 million program at the University of Alabama examined acute HIV infection in an established cohort and examined the factors associated with infection in HIV-discordant heterosexual couples. A $400,000 research program at the University of Nebraska examined the pathogenesis of Kaposi's sarcoma-related herpes virus (KSHV/HHV-8).

Zambian physicians received clinical training at the University of Alabama and the University of Miami.

Ethiopia was the largest recipient of American foreign aid in Africa. USAID's total assistance budget for Ethiopia was $115 million, $4.8 million (4%) of which was designated for HIV programs. American aid and commitment to Ethiopia increased substantially during the period of this analysis, rising from $56 million in 1996 when the U.S. was the third largest bilateral donor. The USAID mission in Ethiopia focused on health, education, and food security. One-third of the total USAID mission expenditure on health programs was for HIV. The HIV program was part of an overall health effort that focused on maternal and child health programs in the southern region of the country, where more than 11 million people have received health care services from USAID-funded programs. The USAID mission supported STD treatment clinics for Ethiopians in urban areas and reported that it served about 30,000 people during the period of this analysis. The USAID mission also subsidized condom distribution through the private sector, with about 24 million condoms distributed in 1998. The Futures Group trained Ethiopian government officials at the national Ministry of Health and in the Oromia region to develop and implement the national AIDS control strategy. Ethiopian physicians received HIV clinical training at Johns Hopkins University.

Through USAID, the U.S. government supplied 4% of **Tanzania**'s development aid. USAID was the largest supporter of family planning activities. Japan, the U.K., and Denmark were the three largest donors to Tanzania. In 1998, the American government devoted $24 million to development projects in Tanzania, focused on health and family planning, environmentally sustainable natural resources management, democratic governance, micro- and small enterprise development, and rural roads

improvement. Fifteen percent of U.S. mission-level assistance was designated for HIV. Mission-level activities focused on the establishment and support of 150 community-based agencies that reached approximately 50% of the country. The community-based agencies typically focused on HIV prevention and peer education at work sites. Family Health International provided technical assistance to USAID-funded community groups, particularly to analyze peer education programs. Population Services International subsidized condoms for private and government health facilities. The Population Council conducted research on how to encourage Tanzanians to seek HIV testing. The Futures Group trained national and regional health authorities on AIDS control strategies. The National Cancer Institute's Viral Epidemiology Branch and the Research Triangle Institute, through an NCI contract, conducted epidemiological studies on HIV strains found in Tanzania. Harvard University trained Tanzanian clinicians, and sponsored a $480,000 research study on the impact of vitamin supplementation on HIV progression and perinatal transmission in women at the Muhimbili Medical Centre in Dar-es-Salaam. Tanzania was a site for a Johns Hopkins University research study that examined the cost effectiveness of various HIV prevention strategies in developing countries.

Unlike other African nations where the U.S. was most involved, **Côte d'Ivoire** had no direct USAID presence. There was no USAID mission in the country, and the regional program that covered Côte d'Ivoire closed in 1998. Nevertheless, Côte d'Ivoire was the location of the largest international project of CDC. The National Center for HIV, STD and TB Prevention of CDC operated Project RETRO-CI in Abidjan. Project Retro-CI was a collaborative research project between CDC and the national health ministry. The project defined the magnitude of the national epidemic, described clinical manifestations of HIV-1 and HIV-2 infections, defined causes of death in HIV-infected persons, studied the response to tuberculosis therapy in HIV-infected persons, studied the laboratory diagnosis of HIV-1 and HIV-2, and conducted clinical trials to develop effective interventions that prevent mother-to-child and heterosexual HIV transmission. Family Health International funded community groups to attend a RETRO-CI conference. Population Services International subsidized condom distribution. Physicians from Côte d'Ivoire received clinical training at the University of California- Berkeley.

The U.S. HIV program in **Mozambique** was centered almost entirely on the USAID mission there. The U.S. was the largest donor to Mozambique, and it concentrated primarily on agricultural reform in the country's central provinces. Switzerland was the largest donor in the health sector. Five percent ($3.7 million) of the USAID mission's $67 million budget was designated for HIV projects. The HIV activities focused on improving maternal and child health and STD treatment. USAID purchased STD drugs for government health clinics and helped improve their management. The mission established a condom distribution and subsidy program, with more than 16 million condoms distributed in 1998. Clinicians from Mozambique received training at the University of Washington.

Senegal was the U.S.'s most important ally in francophone Africa, receiving $17 million in aid from USAID, $2.5 million of which was designated for HIV. France was the largest donor nation, although the U.S. was the largest donor to family planning programs. Senegal has the lowest HIV prevalence of any sub-Saharan African nation. USAID's HIV program focused on maternal and child programs, particularly primary and prenatal care, childhood immunizations, and STD treatment. Family Health International supported the participation of local groups and officials in regional conferences. The Population Council evaluated the impact of people with HIV participating in the organization of prevention and care programs. The International AIDS Alliance organized community-based groups in Senegal. The Peace Corps trained its volunteers to conduct HIV prevention workshops. A $160,000 research study at Johns Hopkins University examined resistance profiles of HIV strains found in Senegal. A $1 million research program at the University of Washington examined the natural history of cervical dysplasia in HIV-infected Senegalese women. Harvard trained Senegalese physicians and operated a $90,000 research project, in which Senegal was one participating nation, examining immunologic responses to HIV strains prevalent in west Africa.

Malawi received substantial U.S. assistance to fight its HIV epidemic. The $36 million USAID mission budget in Malawi was focused on economic reforms, health improvements, and strengthening democracy. The U.S. and U.K. were the largest developmental assistance donors to Malawi. The USAID mission designated $2.4 million of its budget for HIV programs, primarily support for maternal and child

health and STD clinics. The Population Council promulgated best practices guidelines on workplace HIV discrimination and stigma, and evaluated a community-based HIV prevention program in the Mangochi district. The Peace Corps provided HIV prevention workshops through its volunteers in the country. The Futures Group trained government officials in the development and implementation of a national AIDS control strategy. An HIVNET vaccine research site was located in the country, administered by Johns Hopkins University. Malawi had two additional major NIH-funded academic research programs, including a $550,000 research program at Johns Hopkins that examined the role of vitamins in HIV progression and perinatal transmission, and a $125,000 program at the University of North Carolina that examined the pathogenesis of Kaposi's sarcoma-related herpes virus (KSHV/HHV-8). NCI funded HIV epidemiology through its Viral Epidemiology Branch and the Research Triangle Institute. Clinicians from Malawi received training at Johns Hopkins University.

The USAID mission in **Zimbabwe** had an $11.8 million budget, $1.9 million of which was designated for HIV. The U.S. was not a major donor to Zimbabwe (Japan was the largest, with $66 million in annual assistance), but it played an important role in housing assistance, family planning, and natural resources management. The U.S. was the largest donor for family planning services, and thus played an important role in HIV prevention. The USAID mission helped develop the private-sector health care system, including private-sector community groups that focus on HIV. HIV activities included condom subsidies and logistics management, including reforms to the national tax system that heavily taxes contraceptives. Although USAID played a key role in the area of family planning, the agency was planning to cease aid to Zimbabwe in 2003. The Population Council was heavily involved in Zimbabwe. Population Council projects included assessing the practicality of female condom use and appropriate instructions for its use, examining approaches to HIV testing and training nurses and others in counseling and testing, developing prevention strategies for pregnant women, examining STD control strategies, and planning systems of care for AIDS orphans. The Futures Group trained government officials to develop and implement a national AIDS control strategy. Zimbabwe was the site of an HIVNET vaccine research site operated by Stanford University. In addition to vaccine research, a $127,000 research program at Stanford examined vertical transmission in Zimbabwe. Physicians from Zimbabwe were trained at the University of California-Berkeley.

Nigeria received only $7 million from USAID, $1.9 million of which was designated for HIV programs. This small amount reflected a drastic scaling-back of U.S. and all other foreign assistance to Nigeria beginning in 1994 due to the worsening military dictatorship at the time. USAID used its HIV funds to support local, community-based HIV organizations that focused on HIV prevention in 14 Nigerian states. Family Health International supported the work of USAID-funded community organizations in Nigeria by training staff and peer educators, developing materials, distributing condoms, organizing workshops, creating mass media prevention campaigns, and staging music concerts for youth. The Population Council evaluated HIV prevention strategies for young Nigerian women. The Futures Group helped Nigerian officials develop a national AIDS control strategy. Through an NIH grant, the U.S. Army's Walter Reed Research Institute surveyed Nigerian flora as part of an international biodiversity initiative. NCI's Viral Epidemiology Branch conducted surveys of HIV-1 and HIV-2 strains found in Nigeria.

The USAID mission in **South Africa** spent $1.3 million of its $70 million budget on HIV programs. The U.S. was the third largest donor to South Africa, with the major focus on economic reform and training for black South Africans. The mission's HIV program supported the primary health care system in the Eastern Cape province. The Population Council evaluated HIV prevention programs among South Africa's migrant mine workers, examined HIV testing strategies, and evaluated the impact of rigid gender roles on HIV prevention programs. The Peace Corps provided HIV prevention workshops through its volunteers in the country. South Africa was the site of two HIVNET vaccine research sites, one at the Centre for Epidemiological Research of South Africa in Durban and one at the Chris Hani Baragwanath Hospital in Johannesburg. Two major academic research projects operated in South Africa, a $325,000 program at Columbia University that examined the immunologic characteristics of HIV-infected children and a $25,000 FIRCA collaborative grant that examined perinatal transmission from infected women who also have tuberculosis. South African physicians were trained at Columbia and Johns Hopkins Universities.

Rwanda is a small nation with a big HIV epidemic. The USAID mission in Rwanda designated $500,000 of its $18 million budget for HIV. The mission's goal was increasing democratic governance, rebuilding the health infrastructure, and increasing food supplies. USAID's mission- level HIV funds were used to help reconstruct health clinics that were destroyed in the war and genocide of 1994, primarily in the prefectures of Byumba, Gitarama, Kigali, and Kibungo. USAID stated that it would rebuild 60 health clinics to be used for primary health care and STD treatment. Family Health International was heavily involved in Rwanda. The FHI program was multifaceted, with major efforts in training local health officials on STD diagnosis and treatment, developing HIV monitoring systems, and providing technical assistance for HIV prevention programs. Rwandan physicians received HIV clinical training at Johns Hopkins University.

USAID provided **Ghana** with $53 million in annual aid in 1998, $1.2 million of which was designated for HIV. The U.S. provided 7% of total international aid to Ghana, which was the largest recipient of U.S. aid in west Africa. The USAID program focused on increasing private-sector development, improving the effectiveness of primary education, improving family planning, HIV/AIDS prevention and child survival interventions, and enhancing civic participation and accountable governance. USAID mission-level HIV funds were used to support family planning clinics, contraceptive availability, and child health programs, particularly immunization programs. Family Health International played an important role in Ghana. FHI trained the Ghanaian police force to implement behavioral interventions and conduct seroprevalence studies, trained staff at government- funded public health clinics and laboratories to diagnose STDs, and convened symposia for workers involved in AIDS prevention. The Population Council evaluated STD interventions among workers at the Ashanta Gold Mines in Obusai. The Futures Group trained government officials to develop and implement a national AIDS control strategy. Through an NIH grant, the Population Council evaluated school-based HIV prevention strategies.

b. Asian Countries with the Most U.S. Involvement

The U.S. was involved, either directly or indirectly, in 20 Asian nations in 1998, five of which met our definition of most involved.

Table 5: Asian Countries with the Most U.S. Involvement

Country	N projects	U.S. $ total	Population 1997	HIV prevalence/100 1997
Indonesia	6	$7,138,608	203,480,000	0.05
Thailand	19	$3,725,065	59,159,000	2.23
India	20	$3,501,105	960,178,000	0.82
Philippines	12	$2,020,431	70,725,000	0.09
Vietnam	12	$47,922	76,548,000	0.22
Asia total*	117	$29,004,578		

* Includes all Asian countries; see Tables 9c and 9d.

The period of analysis in this report coincided with the onset of the Asian economic crisis, which hit **Indonesia** very hard. USAID spent $43.8 million in development assistance for Indonesia, of which $6.4 million was designated for HIV programs, the largest mission-level HIV budget. USAID funds were primarily focused on economic reforms. The mission used its HIV funds primarily to shore up Indonesia's health care system, which began deteriorating rapidly during the economic crisis. Specific mission-level HIV activities included training midwives to advise women on contraceptive use, training health care staff on the diagnosis and management of STDs, providing assistance in monitoring STDs, and subsidizing condom distribution. Family Health International conducted HIV prevention training for schoolteachers and taxi drivers on Bali. The University of Michigan operated a $500,000 NIH-funded research program that examined prevention strategies for sex workers on Bali. The University of Washington operated a

$180,000 NIH-funded SIV-free macaque breeding program on Tinjil Island. Indonesian physicians were trained at Brown University.

The HIV epidemic in **Thailand** is one of the most intensively studied in the world. Thailand received no direct development assistance from USAID, but it received substantial indirect assistance from USAID contractors and other forms of direct assistance from CDC and NIH. The Population Council promulgated an HIV prevention curriculum for use in primary and secondary schools as well as management guidelines for opportunistic infections, analyzed STD data, convened workshops on integrating HIV prevention into family planning activities, and evaluated workplace HIV prevention programs. The National Center for HIV, STD and TB Prevention at CDC had a $2.5 million collaboration with the Thai Ministry of Health. The collaboration focused on tracing the dynamics of the HIV epidemic in Thailand. Research projects included evaluating therapies to reduce perinatal transmission, the link between heterosexual HIV and STD transmission, the role of vaginal microbicides in high- and low-risk populations, and HIV transmission among intravenous drug users. Chiang Mai University was an HIVNET vaccine research site, operated by Johns Hopkins University. The Army's Henry M. Jackson Foundation operated a $325,000 NIH-funded research program examining interventions to prevent perinatal transmission. An $863,000 program at Harvard examined AZT's role in blocking perinatal transmission. Thai physicians were trained at Johns Hopkins, University of Washington, Emory University, Harvard, University of California-Berkeley, and University of California-Los Angeles.

U.S. involvement in the HIV epidemic in **India** was multifaceted and substantial. USAID provided India with $143 million in development assistance, of which $2.7 million was designated for HIV programs. The U.S. was the seventh largest donor to India. The main focus of USAID in India was controlling population growth and alleviating malnutrition. The mission's HIV activities centered on the southern Indian state of Tamil Nadu, which has a large HIV-infected population. The mission funded 102 community-based organizations that focused on truck drivers, prostitutes, and other high-risk groups. These groups used their USAID funds for condom distribution and other prevention initiatives. In addition, the mission helped local commercial facilities produce condoms and helped support STD treatment clinics. In 1998, the USAID mission expanded its HIV program to include the state of Maharashtra, which has the highest rate of HIV infection in the country. The mission's HIV programs also helped support the ongoing polio eradication effort in India. Family Health International helped develop an HIV monitoring system in Maharashtra. The Futures Group trained government officials to develop and implement an AIDS control strategy. The Population Council assessed appropriate STD control strategies for truck drivers, examined how STD treatment can be integrated into reproductive health clinics, examined HIV prevention issues for women, including women and girls who have been "trafficked" for sex, and convened regional conferences on ethical issues and HIV testing. The National AIDS Research Institute in Pune (Maharashta) was an HIVNET vaccine research site, operated by Johns Hopkins University. The Laboratory of Immunoregulation at NIAID operated a $337,000 research program in Pune that examined the natural history of acute HIV infection. Johns Hopkins University operated a $413,000 research program in collaboration with the Laboratory of Immunoregulation that examined acute HIV infection in Pune. The University of North Carolina operated a $25,000 FIRCA grant in collaboration with the Government Medical College in Nagpur that examined the use of gonorrhea screening and treatment as an HIV prevention intervention. The University of Pittsburgh operated a $25,000 FIRCA grant in collaboration with the Chittaranjan National Cancer Institute in Calcutta that examined the immunology of CD8 cells in people infected with Indian strains of HIV. Indian physicians received clinical training at Johns Hopkins University and UCLA.

The U.S.'s long relationship with the Philippines extends to involvement with HIV programs. In 1998, USAID allocated $43.6 million for development assistance, $1.5 million of which was designated for HIV programs. The U.S. was the largest donor to HIV programs in the Philippines. The USAID mission used its HIV funds to help monitor the epidemic and develop prevention strategies for prostitutes and other high-risk groups. Family Health International developed strategies for the control of STDs, including training health clinic staff and local government officials, implementing national monitoring systems, assessing resistance mutations in gonorrhea isolates, and surveying the sexual practices of young men. The Population Council assessed the role of HIV- infected people in the delivery of HIV treatment and prevention services. The Futures Group trained government officials to develop and implement a national

AIDS control strategy. The International AIDS Alliance provided technical assistance and evaluation for community-based HIV organizations. A $470,000 research program at UCLA studied prevention strategies among men who visit prostitutes, police, taxi drivers, and industrial workers. The UCLA program included its Center for AIDS Research. Filipino physicians were trained at Brown University.

U.S. law prohibits most direct American assistance to Vietnam. Nevertheless, there was substantial indirect U.S. involvement in Vietnam through USAID contractors and NIH-funded universities. Family Health International operated a major program in three Vietnamese provinces, Tay Ninh, Quang Ninh, and Can Tho. This program surveyed sexual behaviors, assessed treatment clinics for STDs, and developed community- based prevention programs. In addition, FHI trained government officials in male and female condom distribution logistics and encouraged greater private-sector production of condoms. Johns Hopkins University operated a $26,000 FIRCA grant that examined the ability of women in north Vietnam to recognize STD symptoms. UCLA operated a $21,000 FIRCA grant that examined the prevalence of HIV-1 subtype E, a strain common in Southeast Asia, among intravenous drug users in south and central Vietnam. Vietnamese physicians received clinical training at Emory University, Johns Hopkins University, University of California- Berkeley, and UCLA.

c. Latin American & Caribbean Countries Where the U.S. is Most Involved
The U.S. funded HIV programs, either directly or indirectly, in nineteen Latin American and Caribbean countries, four of which met this report's definition of most involved.

Table 6: Latin American & Caribbean Countries with the Most U.S. Involvement

Country	N projects	U.S. $ total	Population 1997	HIV prevalence/100 1997
Brazil	25	$3,307,856	163,132,000	0.63
Haiti	10	$2,475,765	7,395,000	5.17
Dominican Republic	15	$1,853,000	8,097,000	1.89
Trinidad & Tobago	11	$1,602,699	1,307,000	0.94
Mexico	11	$400,000	94,281,000	0.35
LA/Caribbean total*	113	$22,185,197		

* Includes all Latin American & Caribbean programs; see Tables 9e and 9f.

When measured by number of projects and U.S. institutions involved, **Brazil** was the country with the most substantial U.S. involvement in HIV control. In 1998, USAID provided $10 million in development aid to Brazil, $2.2 million of which was designated for HIV programs. The USAID mission HIV program funded, planned, implemented, and evaluated public and private STD treatment and HIV programs in four states (Bahia, Ceará, São Paulo, and Rio de Janeiro) and conducted condom social marketing. Family Health International supported the USAID mission in these four states by surveying community groups to determine effective interventions, developing case studies of effective interventions, conducting management needs assessment for USAID-funded community groups, training public- and private-sector health workers in HIV prevention, and conducting behavioral surveys. The Population Council focused on female condoms, particularly their use in adolescents and prostitutes, the understandability of their packaging instructions, and whether USAID should purchase them in bulk. The Population Council developed HIV behavioral risk screening protocols for women attending family planning clinics. The Universidade Federal do Rio de Janeiro was an HIVNET vaccine research site operated by the University of Pittsburgh. Yeshiva University supported a $225,000 research program to develop peptide-based HIV vaccines. Emory University operated a $180,000 research program to evaluate design issues in HIV vaccine trials. The NIAID Laboratory of Parasitic Diseases operated an $837,000 research program that examined the biology of strongyloidiasis, a parasitic worm infection. Brazilian physicians were trained at Johns Hopkins University, University of California-Berkeley, UCLA, University of Maryland, University of Miami, University of Pittsburgh, and Cornell University.

Haiti is the poorest country, and suffers the most intense HIV epidemic, in the western hemisphere. The U.S. was the largest donor to Haiti, supplying $104 million in 1998, of which $1.3 million (1%) was designated for HIV programs. The USAID mission supported health care programs, primarily for women and children, addressed environmental degradation, and attempted to strengthen democracy and train the national police force. USAID HIV/AIDS funds supported family planning and maternal and child health programs in three of Haiti's ten departments, reaching over half the nation's population. Twenty-two Haitian community-based groups received some direct support from the USAID mission for HIV prevention. The Futures Group trained national health officials to develop and implement a national AIDS control strategy. Haiti was the site of an HIVNET vaccine research site operated by Cornell Medical College, which also operated an $851,000 research project examining the natural history of HIV infection in a Port-au-Prince cohort. Johns Hopkins University operated a $324,000 research program that examined tuberculosis prevention in PPD- negative HIV-infected people. Haitian physicians were trained at Cornell, Johns Hopkins, and University of Miami.

The U.S. donated $13.2 million in development assistance to the **Dominican Republic** in 1998, of which $1.8 million was designated for HIV. The U.S. was the fifth largest donor to the Dominican Republic. USAID focused on economic development, political reform, transitioning to more efficient energy sources, and reconstruction after serious hurricane damage. The USAID mission- level HIV program focused on improving family planning services at ten hospitals, supporting community-based HIV organizations, and increasing access to potable water in rural areas. Family Health International promulgated a training manual on STD treatment, trained health clinic staff in STD treatment, assessed the national AIDS control strategy, helped develop a national AIDS plan, developed an HIV monitoring system, and improved the management of the national AIDS program. The Population Council examined strategies for increasing condom use in brothels. The Peace Corps trained its volunteers to conduct HIV prevention workshops. The Dominican Republic was one site of an international research program operated by Johns Hopkins University that assessed the cost- effectiveness of prevention strategies in developing countries. Dominican physicians were trained at Johns Hopkins and the University of Miami.

U.S. involvement in **Trinidad & Tobago** was entirely in the form of NIH-funded research programs. (Trinidad does not appear on our map because of the scale.) The National Cancer Institute funded a $315,000 program at the Caribbean Epidemiology Center and a $680,000 program at the University of the West Indies, both in Trinidad, to conduct epidemiological surveys of HTLV, lymphomas, and HIV. NCI's Viral Epidemiology Branch also conducted epidemiological surveys in Trinidad. Research Triangle Institute, with NCI support, analyzed HIV strains found in Trinidad. Trinidad was the site of an HIVNET vaccine research site at the University of the West Indies, operated by the University of Maryland. The Center for AIDS research at Duke University operated a $1.6 million program that conducted immunologic and virologic studies of HIV isolates and patients from Trinidad. Physicians from Trinidad received clinical training at the University of Maryland.

In 1998, USAID donated $10 million to **Mexico** for development assistance, $400,000 of which was designated for HIV programs. USAID's role in Mexico was primarily focused on environmental protection and drug trafficking. The mission's HIV activities focused on improving STD treatment in the states of Yucatan, Guerrero, Mexico (along with the Federal District), Puebla, Veracruz, Jalisco, and Oaxaca. Family Health International supported the mission's activity by training government officials, public health providers, and community groups in STD control, and improving the national monitoring system for HIV and other STDs. The Population Council developed and promulgated a school-based HIV prevention curriculum for pre-school through secondary school. The Futures Group trained government officials to develop and implement an AIDS control strategy. The International AIDS Alliance developed community-based HIV organizations, primarily in Yucatan. Mexican physicians received clinical training at Emory University and UCLA.

d. Eastern Europe & the Former Soviet Union

During 1998, no Eurasian countries met the definition of "most involved." At least $3.1 million was spent by U.S. agencies on international AIDS activities in these countries during 1998, of which $1.6 million went to Russia, the largest single recipient. Four USAID missions in Eurasian countries—Russia, Belarus, Kazakhstan, and Uzbekistan—received HIV funds but reported no HIV/AIDS activities in congressional

testimony. The emerging epidemic in this region demands an increased U.S. role.

Section 8: Other U.S. Agencies Involved in Developing Countries
We did not include the DOD's international HIV/AIDS program in our analysis because DOD refused to provide detailed program information. Nor did we include activities of other U.S. agencies described in the 1999 Department of State report on the international U.S. effort (see below), as these were all rather small efforts dwarfed by the "big three." Here we provide a summary of what little information we were able to obtain about the DOD program and about other U.S. activities.

a. Department of Defense (DOD)
The DOD HIV program is part of the tradition of military medicine that focuses on possible health threats to U.S. military personnel abroad. Its primary focus is mitigating possible infectious threats to U.S. troops and developing medical interventions for combat situations. The Army's Medical Research and Material Command operates the U.S. Army Research Institute for Infectious Diseases (USAMRIID) and maintains research sites in Kenya and Thailand. The medical and research command also operates the Walter Reed Army Research Institute in Bethesda, Maryland. The Naval Medical Research Center operates an infectious diseases directorate as well as Naval Medical Research Units (NAMRUs) in Indonesia, Peru, and Brazil.

The U.S. military published a report on its HIV research program in 1998, which we used to assess the nature and location of HIV-related military research activities. DOD web sites were also examined. DOD sources stated that they were "not at liberty to disclose" budgetary information regarding the department's international activities related to HIV/AIDS. Since they did not provide us with information for this report, the information here about its program is the least textured, and we did not include DOD figures in our overall totals for the year 1998. We could not determine the overall administrative structure of the DOD HIV research program, nor exactly how and where the funds were allocated.

The DOD HIV/AIDS programs include epidemiology, surveillance, a small amount of treatment research, and a substantial preclinical and clinical HIV vaccine discovery and development program. We did not obtain enough information to summarize total DOD HIV/AIDS spending, let alone its international components broken down by program area or country of activity.

After NIH, DOD supports the other major U.S.-funded international HIV vaccine program. Army research units in Thailand, Kenya, and Brazil focus on vaccine development.

Another component of the DOD HIV/AIDS program is the Defense Intelligence Agency's Armed Forces Medical Intelligence Center (AFMIC), which "will continue to assess systematically worldwide HIV/AIDS incidence and prevalence [and] forecast the impact of HIV/AIDS ... on US national security interests and deployed forces, ... [and] on foreign military force readiness, military and civilian healthcare infrastructures and transnational health trends" (Department of State 1999).

We obtained information from the DOD Technical Information System (www.dtic.mil), whose archives expenditures over the coming years. The military's HIV- related budgets varied depending upon the report examined, with decreases apparently planned from 1998 through 2005. In 1998, military HIV research expenditures were about $20.4 million.

In 1998, the military's main efforts included developing experimental models of disease, preparation of new vaccine candidates, improved diagnosis of disease, and risk assessment. The military report went on to list $18,694,000 of the FY 1998 money as having been spent on gp140 and nef-deleted live attenuated SIV vaccines in macaques, DNA and gp160 SHIV vaccines, as well as a phase I study of a DNA vaccine, epidemiology studies in Thailand, and HIV surveillance and risk assessment activities in North Africa, the Middle East, Eastern Europe, and South Asia. Administrative overhead at the Walter Reed Army Institute of Research (WRAIR) was $1.72 million for oversight of these activities, for a total of $20.414 million.

Strangely, the DOD's 1999 budget justification proposed spending $14.548 million on HIV/AIDS research in FY 1999, while the 2000 budget justification proposed spending only $3.34 million, and only described activities related to phase II clinical trials of gp120 and gp160 vaccines. In any case, cumulative Army HIV/AIDS research spending from 1999 to 2005 was listed as $84 million in the 1999 budget and only

$17 million in 2000. What happened to the missing money?

Clearly a more accurate, comprehensive, and detailed analysis of the U.S. Department of Defense's role in HIV-related activities, both domestic and international, is needed, and DOD needs to make substantially more information about these activities accessible to the public.

b. Other Agencies

The Office of National AIDS Policy (ONAP), reporting to the president, is supposed to coordinate all federal HIV/AIDS activities. ONAP carries out no programs of its own, other than supporting the President's Council on HIV/AIDS (PACHA), which has an international subcommittee. The ONAP director's press release on the president's FY 2001 budget request cited the administration's proposed $100 million increase in support for international AIDS activities to be carried out by CDC, DOD, the Department of Labor, and USAID. (Curiously, NIH was omitted from this list.) However, ONAP did not break out global HIV/AIDS funding for FY 2001 or any previous year.

The Department of State's 1999 U.S. International Response to HIV/AIDS report covered all federal agencies and departments, though often with little detail. For example, its own Bureau of Oceans & International Environmental & Scientific Affairs/Emerging Infectious Diseases & HIV/AIDS Program "works with USAID and other federal agencies to develop the bilateral and multilateral partnerships to address the unique implications of HIV/AIDS and other infectious diseases." The Bureau of Population, Refugees & Migration (PRM) "coordinates efforts ... to implement a more comprehensive international population policy." The Bureau of Democracy, Human Rights & Labor (DRL) "oversees initiatives and policies to promote and strengthen civil society and respect for human and worker rights." Finally, "The President's Interagency Council on Women, which is chaired by the Secretary of State, is charged with coordinating the implementation of the Platform for Action adopted at the [1995 Beijing] UN Fourth Conference on Women, [which] recommends action to ... undertake gender-sensitive initiatives that address STDs, HIV/AIDS, and sexual and reproductive health issues." The Department of State report includes no figure for overall state spending on HIV/AIDS, nor for international HIV/AIDS spending.

The U.S. Information Agency (USIA) arranged speaking tours for U.S. AIDS experts, broadcast coverage of World AIDS Day in 52 languages, and published AIDS-related policy statements and analysis on the USIA international homepage. According to the Department of State, "USIA exchanges under the Fulbright, International Visitor, and U.S. Speaker programs budgeted $655,200 in FY 1998 on HIV/AIDS programs. This figure has been relatively constant since 1995."

U.S. Peace Corps* HIV/AIDS activities include education of Peace Corps employees and volunteers, and prevention efforts conducted by Peace Corps volunteers in host countries. Except for support received from USAID (described above), the Peace Corps does not earmark specific funding for HIV/AIDS activities. In June 2000 they announced a $500,000 gift from the Bill & Melinda Gates Foundation to bolster their HIV/AIDS training and community outreach efforts.

The Department of Commerce includes the U.S. Patent & Trademark Office (USPTO), which "offers accelerated processing of applications for inventions related to HIV/AIDS." In addition, the USPTO provides a searchable database containing the full text and images of all patents related to AIDS research, including about 3,000 U.S., 800 Japanese, and 700 European patent documents. The International Programs Center (IPC) of the Bureau of the Census* "compiles, evaluates, and analyzes selected health and related data for all countries overseas" and "with funding from USAID through an interagency agreement, the Health Studies Branch maintains and updates the HIV/AIDS Surveillance Data Base, which is a compilation of information on HIV prevalence and incidence from all available studies from Africa, Asia, Latin America, and some select countries in Europe." The IPC is a UNAIDS Collaborating Centre. The Office of the U.S. Trade Representative is also affiliated with the Department of Commerce.

The Department of Labor is slated to receive $10 million in "new" global HIV/AIDS funds in the president's FY 2001 budget request; however, the State Department's 1999 report does not mention any international HIV/AIDS programs carried out by this department.

Table 7: US International AIDS Funding by Contractor/Grantee & by Program Area								
Total Budget	Institution	Prevention	Vaccine	Academic Research	Epidemiology	Clinical Training	Leadership	Reference Labs
$24,799,020	Family Health International	$15,155,000	$9,644,020					
$13,020,183	Population Council	$12,884,000		$136,183				
$8,226,000	Population Services International	$8,226,000						
$4,401,412	Johns Hopkins			$3,332,412		$1,069,000		
$3,363,041	Harvard			$2,537,696		$825,345		
$3,203,687	Univ. of Washington			$1,960,292		$1,063,101		$180,294
$2,959,000	International AIDS Alliance						$2,959,000	
$2,895,699	Fred Hutchinson Cancer Center		$2,895,699					
$2,694,626	Univ. of Alabama			$2,244,626		$450,000		
$2,582,061	Research Triangle Institute				$2,582,061			
$2,440,000	Futures Group						$2,440,000	
$2,200,014	Columbia Univ.			$1,833,062		$366,952		
$1,621,563	Cornell Medical College			$851,563		$770,000		
$1,602,699	Duke Univ.			$1,602,699				
$1,526,008	Case Western Reserve			$846,008		$680,000		
$1,468,305	U.C. Los Angeles			$608,305		$860,000		
$830,000	U.C. Berkeley					$830,000		
$680,458	Univ. of West Indies				$680,458			

$637,448	New York Univ.			$637,448				
$547,971	Univ. of North Carolina			$137,971		$410,000		
$528,314	Univ. of Michigan			$528,314				
$430,000	Yale					$430,000		
$418,895	Univ. of Nebraska			$418,895				
$388,387	National Opinion Research Center			$388,387				
$350,000	National Council on International Health						$350,000	
$315,000	Caribbean Epidemiology Center				$315,000			
$310,150	Emory Univ.			$180,150		$130,000		
$300,000	SUNY Brooklyn					$300,000		
$270,801	Brown Univ.			$20,800		$250,001		
$243,492	Univ. of Maryland			$23,492		$220,000		
$225,677	Yeshiva Univ.			$225,677				
$198,016	Univ. of Minnesota			$198,016				
$127,597	Stanford			$127,597				
$107,544	U.C. San Francisco			$107,544				
$70,666	Univ. of Illinois			$70,666				
$70,200	Univ. of Pittsburgh			$25,200		$45,000		
$50,400	Univ. of Massachusetts			$50,400				
$40,667	Virginia Polytechnic			$40,667				

$40,000	Univ. of Arizona			$40,000				
$25,440	Hauptman-Woodward Research			$25,440				
$25,200	Colorado State			$25,200				
$25,133	Washington Univ.			$25,133				
$25,060	Univ. of Memphis			$25,060				
$23,402	U.C. Davis			$23,402				
$23,038	Univ. of Texas			$23,038				
$20,000	Cleveland Clinic			$20,000				
$20,000	New York Blood Center			$20,000				
$87,377,274	Grand Total	$36,265,000	$12,539,719	$19,361,343	$3,577,519	$9,704,399	$5,749,000	$180,294

* These programs are included in this analysis as USAID interagency contractors.

This three-page table describes all US government contractors and grantees involved in the international HIV program, listed by size of total international budget.

Table 8: US Federal Agencies, with Intramural & Inter-Agency International AIDS Programs by Program Area, FY 1998*

Agency	Total Budget	Health Systems Support	Prevention	Academic Research	Epidemiology	Reference Labs
Census Bureau	$1,350,000				$1,350,000	
CDC National Center for HIV/STD/TB Prevention	$7,536,317				$7,536,317	
CDC National Center for Infectious Diseases	$1,500,000				$1,500,000	
NIH-Funded Military HIV Research	$395,473			$395,473		
NIH Fogarty International Center	$807,000					$807,000
NIH/NIAID Laboratory of Parasitic Diseases	$837,179			$837,179		
NIH/NIAID Laboratory of Immunoregulation	$337,425			$337,425		

NIH/NCI Viral Epidemiology Branch	$699,200				$699,200	
NIH/NCI Frederick Research Center	$1,539,000					$1,539,000
NIH/NCI Support Contracts	$2,379,204					$2,379,204
Peace Corps	$236,000		$236,000			
USAID Missions	$57,125,000	$57,125,000				
UN AIDS Support	$23,000,000	Not Analyzed				
GRAND TOTAL	$97,741,798*	$57,125,000	$236,00	$1,570,077	$11,085,517	$4,725,204

Table 9: Regional & Country Summaries
The following tables itemize funds targeted to individual countries and regions by program area and describe the number of HIV projects in each program area. For limitations of these data, see section 4.

Table 9a: US 1998 AIDS Funding Targeted to Africa by Agency Projects

AREA	Projects	All U.S. Funds	USAID Mission Budget	NIH Budget	CDC Budget	Population 1997	HIV Prevalence 1997
Regional Programs	6	$8,385,941	$6,743,000	$1,642,941			
Benin	2	$1,450,000	$1,450,000			5,720,000	2.06
Botswana	5	$107,544		$107,544		1,518,000	25.10
Burkina Faso	5	Indirect				11,087,000	7.17
Cameroon	5	$637,448		$637,448		13,937,000	4.89
Congo	1	$464,000	$464,000			48,040,000	4.35
Côte d'Ivoire	4	$3,774,451			$3,774,451	14,300,000	10.06
Eritrea	1	$500,000	$500,000			3,409,000	3.17
Ethiopia	5	$4,884,000	$4,884,000			60,148,000	9.31
Gambia	3	$20,800		$20,800		1,169,000	2.24
Ghana	11	$1,298,324	$1,200,000	$98,324		18,338,000	2.38
Guinea	2	$1,300,000	$1,300,000			7,614,000	2.09
Kenya	17	$5,770,896	$3,450,000	$820,896	$1,500,000	28,414,000	11.64
Madagascar	4	$500,000	$500,000			15,845,000	0.12
Malawi	15	$3,095,520	$2,408,000	$687,520		10,086,000	14.92
Mali	2	$1,630,000	$1,630,000			11,480,000	1.67

Mauritania	1	Indirect				2,392,000	0.52
Mozambique	3	$3,730,000	$3,730,000			18,265,000	14.17
Namibia	2	$23,492		$23,492		1,613,000	19.94
Niger	1	Indirect				9,788,000	1.45
Nigeria	12	$1,930,000	$1,930,000			118,369,000	4.12
Rwanda	14	$1,152,855	$500,000	$652,855		5,883,000	12.75
Senegal	10	$3,653,607	$2,491,000	$1,162,607		8,762,000	1.77
South Africa	14	$1,733,137	$1,383,000	$349,137		43,336	12.91
Tanzania	13	$3,981,692	$3,513,000	$468,692		31,507,000	9.42
Togo	2	Indirect				4,317,000	8.52
Uganda	23	$9,573,775	$4,900,000	$4,248,486	$425,289	20,791,000	9.51
Zambia	16	$5,708,581	$3,070,000	$2,638,581		8,478,000	19.07
Zimbabwe	14	$2,077,597	$1,950,000	$127,597		11,682,000	25.84
AFRICA TOTAL	213	$67,383,660	$47,996,000	$13,686,920	$5,699,740	7,614,000	2.09

Table 9b: US 1998 AIDS Projects in Africa by Program Type

AREA	All Projects	Health Systems Support	Prevention	Vaccine	Academic Research	Epidemiology	Clinical Training	Leadership
Regional Programs	6		4		1			1
Benin	2	1						1
Botswana	5				1		4	
Burkina Faso	5		4					1
Cameroon	5		2		2		1	
Congo	1	1						
Côte d'Ivoire	4		2			1	1	
Eritrea	1	1						
Ethiopia	5	1					2	2
Gambia	3					1	2	
Ghana	11	1	8					2

Guinea	2	1	1					
Kenya	17	1	8		4	1	2	1
Madagascar	4	1	2		1			
Malawi	15	1	3	1	5	2	2	1
Mali	2	1						1
Mauritania	1		1					
Mozambique	3	1					2	
Namibia	2				1		1	
Niger	1							1
Nigeria	12	1	8		1	1		1
Rwanda	14	1	12				1	
Senegal	10	1	3		4		1	1
South Africa	14	1	5	2	3		3	
Tanzania	13	1	5		2	2	1	2
Togo	2		2					
Uganda	23	1	5	2	10	1	4	
Zambia	16	1	8	1	3		3	
Zimbabwe	14	1	9	1	1		1	1
Total	213	19	92	7	39	9	31	16

Table 9c: US 1998 AIDS Funds Targeted to Asia by Agency

Area	Projects	All U.S. Funds	USAID Mission Budget	NIH Budget	CDC Budget	Population 1997	HIV Prevalence 1997
Regional Programs	6	$5,855,667	$5,535,000	$320,667			
Bangladesh	4	$1,927,000	$1,927,000			122,013,000	0.03
Cambodia	7	$1,000,000	$1,000,000			10,516,000	2.40
China	6	$388,387	$388,387			1,243,738,000	0.06
Egypt	6	$100,000	$100,000			64,465,000	0.03
India	20	$3,501,105	$2,700,000	$801,105		960,178,000	0.82
Indonesia	6	$7,138,608	$6,430,000	$708,608		203,480,000	0.05

Jordan	1	Indirect				5,774,000	0.02
Laos	2	Indirect				5,194,000	0.04
Malaysia	2	Indirect				21,018,000	0.62
Mongolia	1	Indirect				2,568,000	0.01
Morocco	2	Indirect				27,518,000	0.03
Myanamar	2	Indirect				46,765,000	1.79
Nepal	3	$3,225,000	$3,225,000			22,591,000	0.24
Pakistan	1	Indirect				143,831,000	0.09
Philippines	12	$2,020,431	$1,550,000	$470,431		70,724,000	0.06
Sri Lanka	1	Indirect				18,273,000	0.07
Taiwan	3	$75,393		$75,393		N/A	N/A
Thailand	19	$3,725,065	$1,188,488	$2,536,577		59,159,000	2.23
Turkey	1	Indirect				62,774,000	0.01
Vietnam	12	$47,922	$47,922			76,548,000	0.22
TOTAL	117	$29,004,578	$22,467,00	$4,001,001	$2,537,577		

Table 9d: US 1998 AIDS Projects in Asia by Program Area

Area	Projects	Health Systems Support	Prevention	Vaccine	Academic Research	Epidemiology	Clinical Training	Leadership	Reference Labs
Regional Programs	6		5					1	
Bangladesh	4	1	1				1	1	
Cambodia	7	1	4				1	1	
China	6				3		3		
Egypt	6	1	3					2	
India	20	1	9	1	3		5	1	
Indonesia	6	1	2		1		1		1
Jordan	1							1	
Laos	2				2				
Malaysia	2						2		
Mongolia	1						1		

Morocco	2							2	
Myanamar	2						2		
Nepal	3	1	1					1	
Pakistan	1						1		
Philippines	12	1	5		3		1	2	
Sri Lanka	1							1	
Taiwan	3				3				
Thailand	19		5	1	3	1	9		
Turkey	1							1	
Vietnam	12		3		4		5		
TOTAL	117	7	38	3	22	1	32	14	1

U.S. 1998 AIDS Funding Targeted to Latin American/Caribbean & Eurasia by Agency

Area	Projects	All U.S. Funds	USAID Mission Budget	NIH Budget	CDC Budget	Population 1997	HIV Prevalence 1997
LATIN AMERICA / CARIBBEAN							
Regional Programs	3	$6,910,658	$4,860,000	$2,050,658			
Argentina	1	$24,940	$24,940			35,671,000	0.69
Barbados	3	Indirect				262,000	2.89
Bolivia	2	$868,000	$868,000			7,774,000	0.07
Brazil	25	$3,307,856	$2,200,000	$1,107,856		163,132,000	0.63
Chile	1	Indirect				14,625,000	0.2
Colombia	1	Indirect				37,068,000	0.36
Dominican Republic	15	$1,853,000	$1,853,000			8,097,000	1.89
Ecuador	3	Indirect				11,937,000	0.28
El Salvador	4	$295,000	$295,000			5,928,000	0.58
Guatemala	1	Indirect				11,241,000	0.52
Haiti	10	$2,475,765	$1,300,000	$1,175,765		7,395,000	5.17
Honduras	7	$1,500,000	$1,500,000			5,981,000	1.46
Jamaica	4	$2,168,000	$2,168,000			2,515,000	0.99

Mexico	11	$400,000	$400,000			94,281,000	0.35
Nicaragua	1	$200,000	$200,000			4,351,000	0.19
Panama	$276,000	$276,000				2,722,000	0.61
Peru	7	$303,279	$250,000	$53,279		24,367,000	0.56
Surinam	1	Indirect				437,000	1.17
Trinidad	11	$1,602,699	$1,602,699			1,307,000	0.94
TOTAL	114	$22,185,197	$15,894,000	$6,291,197	$0		
EURASIA							
Regional Programs	1	$300,000	$300,000				
Armenia	1	Indirect				3,642,000	0.01
Belarus	0	$189,000	$189,000			10,339,000	0.17
Czech Republic	4	$66,813	$66,813			10,237,000	0.04
Georgia	2	Indirect				5,434,000	<0.005
Hungary	1	Indirect				9,990,000	0.04
Kazakhstan	0	$552,000	$552,000			16,832,000	0.03
Poland	3	$45,440	$45,440			38,635,000	0.06
Romania	1	Indirect				22,606,000	0.01
Russia	3	$1,594,200	$1,139,000	$455,200		147,708,000	0.05
Slovakia	1	Indirect				5,355,000	<0.005
Ukraine	3	Indirect				51,424,000	0.43
Uzbekistan	0	$363,000	$363,000			23,656,000	0.005
TOTAL	20	$3,110,453	$2,243,000	$867,453	$0		

Table 9f: US 1998 AIDS Projects in Latin America/Caribbean & Eurasia by Program Area

Area	Projects	Health Systems Support	Prevention	Vaccine	Academic Research	Epidemiology	Clinical Training	Leadership
LATIN AMERICA / CARIBBEAN								
Regional Programs	3				2			1
Argentina	1				1			

Barbados	3					2	1	
Bolivia	2	1						1
Brazil	25	1	10	1	3		10	
Chile	1				1			
Colombia	1						1	
Dominican Republic	15	1	10		1		3	
Ecuador	3		1					2
El Salvador	4	1	3					
Guatemala	1							1
Haiti	10	1		1	2		4	2
Honduras	7	1	5				1	
Jamaica	4	1	1			1	1	
Mexico	11	1	4		1		3	2
Nicaragua	1	1						
Panama	2					2		
Peru	7	1	1		2		2	1
Surinam	1				1			
Trinidad	11			1	5	4	1	
TOTAL	113	10	35	3	19	9	27	10
EURASIA								
Regional Programs	1						1	
Armenia	1						1	
Belarus	0							
Czech Republic	4				3		1	
Georgia	2						2	
Hungary	1						1	
Kazakhstan	0							
Poland	3				2		1	
Romania	1						1	

Russia	3				1		2	
Slovakia	1		1					
Ukraine	3		2					1
Uzbekistan	0							
TOTAL	20		3	0	6	0	10	1

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Footnotes

1. The three exceptions include a $2.9 million USAID contract to the International AIDS Alliance in London, and two NCI contracts to the Caribbean Epidemiology Center and the University of the West Indies in Trinidad & Tobago.
2. The four CFARs with international components are at Duke, Case Western Reserve, University of California–Los Angeles (UCLA), and the University of Washington.
3. The HIVNET subcontractors were: Cornell University (Haiti); University of Pittsburgh (Brazil); University of Maryland (Trinidad); Johns Hopkins University (Malawi, India, Thailand, Uganda) Centre for Epidemiological Research of South Africa (South Africa); Chris Hani Baragwanath Hospital (South Africa); Case Western Reserve University (Uganda); University of Alabama (Zambia); Stanford University (Zimbabwe).

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The Treatment Action Group (TAG) fights to find a cure for AIDS and to ensure that all people living with HIV receive the necessary treatment, care, and information they need to save their lives. TAG focuses on the AIDS research effort, both public and private, the drug development process, and our nation's health care delivery systems. We meet with researchers, pharmaceutical companies, and government officials, and resort when necessary to acts of civil disobedience, or to acts of Congress. We strive to develop the scientific and political expertise needed to transform policy. TAG is committed to working for and with all communities affected by HIV.

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In memory of

Paul Joseph Corser
(1961-1999)

Kiyoshi Kuromiya
(1943-2000)