

FOIA MARKER

**This is not a textual record. This is used as an
administrative marker by the William J. Clinton
Presidential Library Staff.**

Collection/Record Group: Clinton Presidential Records

Subgroup/Office of Origin: National AIDS Policy Office

Series/Staff Member:

Subseries:

OA/ID Number: 21075

FolderID:

Folder Title:

Responses for Report [Folder 1] [2]

Stack:

S

Row:

67

Section:

1

Shelf:

3

Position:

3

Search for a Cure

58 Burbank Street
Boston, MA 02115

June 25, 1999

From:
David Scondras
phone: 617.266.0735
fax: 617.266.0051
office: 617.536.2474
email: scondras@aol.com
office email: hope@sfac.org

Staff Aide to Sandy Thurman
Cheryl
by fax 202 456 2439
Dear Cheryl:

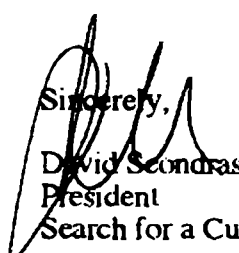
Thank you for taking the time to look over this transmission from GAAN. I think that their suggestion is actually a rather good one as many of us through the initial work of the Health Gap Coalition, have spent the past two years analyzing the HIV situation in developing countries. For example, I have just returned from my second trip to India where I have spent several months working on developing appropriate clinical trial initiatives which are crucial to India and about which there are several problems emanating ironically from NIH skepticism. On the other hand, the scientific advisor to the Ambassador, Chad Gardner thinks that the trials I'm working on are important and the Indian ICMR and the head of Grant College in India (the largest hospital dealing with HIV positives in Mumbai) is anxious to see these begin.

So, if Ms. Thurman has in fact set up a task force regarding what can be done realistically from the White House, I would be in a position to offer relevant, tangible, accurate and recently reviewed advice especially vis a vis India. This seems a more useful use of my time frankly than answering reporters who call from the Boston Globe, Herald and now Post asking questions about the targeting of Gore or about the growing concern vis a vis Africa. But for obvious reasons, I need to know that in fact there is some willingness to take the material seriously before spending time on it.

I know how much junk mail and communication you must receive. It is appropriate for you to check whom your dealing with. I suggest a quick call to Bob Lederer senior editor of POZ magazine, or Terry Beswick who I think is writing his book now on the west coast, or a fast call to Bob Hattoy might suffice. I'm including a short note to me from the White House as well so that you are clear that this inquiry is legitimate.

Thanks!

Sincerely,


David Scondras
President
Search for a Cure

Date: Wednesday, June 23, 1999 5:01:18 PM
From: GlobalAIDS
Subj: On the New Presidential Global AIDS Initiative
To: MOGrady@arlserver.fhi.org, MAA3@wenet.net, pabloc@gmhc.org, Draepalmer, paul@fcaids.org, BabaluAye, powells@staff.abanet.org, poz-edit@poz.com, rpugeda@tides.org, jr273@columbia.edu, MROOT@psiwash.org, grose@mail.41mad.com, RRowell, Tzotzil3, penelopes@earthlink.net, esawyer@igc.apc.org, adabelle_schmitt@ppfa.org, Scondras, ScottHitt, jsebes@aidsaction.org, ALSHARPE, jane.silver@amfar.org, Drmerv, ASlemmer, dsmith4@nmac.org, winnie.stachelberg@hrc.org, STEVRALC@wpgate.law3.georgetown.edu, tstone@nwaids.org, seans@poz.com, SBurden@macfdn.org, danielt@hsph.harvard.edu, tmetzger@aidsfund.org, WESTMORT@wpgate.law3.georgetown.edu, PhillTracy, RLW Witt, swolfe@citizen.org (Sid Wolfe), dzingale@aidsaction.org, vzonana@iavi.org

To: American AIDS Groups that Care About Global AIDS Issues

From: Paul Boneberg

Global AIDS Action Network --GAAN (202-667-6300)

RE: GAAN Response Proposed Presidential Global AIDS Effort-The Thurman Initiative

Date: June 22, 1999

Friends and Colleagues-

One of the most important and hopeful efforts on expanding the US response to the global AIDS pandemic is now underway in the highest levels of the Clinton administration. This is the "Thurman Initiative" which was begun by a memo to the President by National AIDS Policy Coordinator Sandy Thurman after her recent trip to Africa. Responding to

Thurman's extraordinary memo the President created a White House task force to provide formal recommendations as to how the administration can increase its response to the AIDS pandemic.

This task force is now meeting and the highest levels of the administration are seeking to determine how to respond to the President's direction. Obviously this is an extremely hopeful and important development.

GAAN and many other groups have been meeting with various members of the administration to propose specific ideas on how the US response should be expanded. However crafting a more comprehensive outline has been difficult and we have only now completed it. It is both below attached to this e-mail.

We urge all American AIDS groups who care about global AIDS issue to seize this moment to weigh in as to how you would see a maximum response by this president and his administration. Many officials have appealed directly for ideas and analysis as to how the US response can be strengthened and we believe public input will be valued. Those of you with existing relationships with federal agencies such as USAID or NIH should

consider making agency specific proposals on an expanded global AIDS response. More general comments can be sent either to Sandy Thurman or the White House itself.

We hope it is useful and interesting to you and as always-welcome feedback. We would be particularly interested in comprehensive proposals-such as ours seeks to be-as to an administration-wide response. Our contact information is above.

--

A Maximum Presidential Response to the AIDS Pandemic The Perspective of One AIDS Activist Group

In the last several weeks President Clinton has created a White House task force to recommend how the administration could increase its response to the AIDS pandemic. At recent meetings members of this task force specifically challenged community groups to articulate what a

maximum presidential response to AIDS might entail.

The Global AIDS Action Network (GAAN) applauds this initiative and offers the following specific proposals to these policy makers.

Summary

President Clinton should declare that AIDS is a global emergency of the highest order and therefore:

1. Commit the United States to lead a global effort to lessen, reverse, and ultimately end the AIDS pandemic. This public commitment should seek to obtain multinational support and be made in a highly visible venue, such as a special session of the United Nations.
2. Commit the United States to leading a one billion-dollar per year global AIDS campaign of which America would contribute one third. To this end the President should seek immediately \$100,000,000 in additional global AIDS funding with a specific priority of meeting the emergency in Africa.
3. Commit the United States to continuing its effort to develop AIDS vaccines and therapeutics and making these widely available to the peoples of all nations.
4. Direct his cabinet, particularly the Secretaries of State, Health and Human Services, Treasury, and the Special Trade Representative to elevate attention given to global AIDS issues and to propose new initiatives that their agencies can undertake in this regard.

1. Challenging the World to End AIDS

As President Kennedy challenged the nation to do the seemingly impossible and put a man on the moon, so President Clinton should challenge the world to end AIDS and pledge American leadership to this endeavor.

The world is watching with horror as HIV spreads across Africa and Asia. It is looking for bold and credible leadership as to how it can respond to

this pandemic, the worst natural disaster of modern times. Americans also want our nation to lead efforts to fight this plague. Millions of families understand what the statistics from other nations mean; millions understand what it is to have no access to treatment, or to lose a loved one to this disease.

The President's proposals must be bold not simply because the global AIDS situation is grave, but also because skepticism high. Previous global initiatives, notable the 1994 AIDS Summit, were long on words and short on resources. The world does not believe that a credible effort is being made to stop AIDS, or that one will be undertaken. The world assumes that the projections of hundreds of millions of new infections will occur on schedule.

However this cynicism is wrong. Humankind has the ability to slow and ultimately reverse the spread of HIV. This has been done in a number of nations with the most cited examples being Uganda, Senegal, and Thailand. Further new tools such as microbicides and vaccines can and will be developed. With these HIV could be eliminated, just as smallpox has been. This will take decades, but it is certainly plausible that within one lifetime the HIV pandemic could have begun and ended. That is to say that some who saw the beginning of AIDS will live to see its ending.

This can not be done by the United States alone. However without strong American leadership it can not be done at all. The United States must lead by example, committing substantial financial and political resources, and challenging other nations to join us in a campaign to end AIDS.

The president should issue this "call to arms" from a location that will distinguish it from other announcements. This could be one of several venues, but GAAN suggests that the most appropriate would be a special session of the United Nations. This location is not only inherently inclusive, but also a potent vehicle to exert pressure on other nations to participate in this global initiative.

2. Launching a Billion-Dollar Global AIDS Initiative

Without increased funding for existing AIDS programs no global effort can

succeed, but in recent years-global AIDS funding has decreased. The problem has been the widespread belief that the amount of funds needed is so large it cannot be obtained, and even if funds were raised they may not succeed.

This belief is outdated as recent data clearly demonstrates that reasonable amounts of funds can construct effective AIDS programs even in underdeveloped nations. The best example of this is Uganda, which has succeeded in recent years in dramatically reducing the spread of HIV. This was done using funding equal to two dollars per adult per year in the context of a strong overall government effort to address AIDS. Replicating this program for all adults in sub-Saharan Africa would cost roughly \$500,000,000. (250,000,000 adults * \$2.)

What is more Uganda provided 10% of the funds from its own budget and another 20% from World Bank loans. Bilateral assistance provided the remaining 70%. Extrapolating this for an Africa-wide initiative would therefore require some \$350,000,000 in bilateral funding for AIDS programs. GAAN proposes that the US commit to providing half of this figure if support from other nations is also identified. This would involve roughly doubling US funding for AIDS programs in Africa in such a way as to leverage substantial increases in funding from both other donors and the region itself.

It becomes much more difficult to identify the amount of AIDS program funding the US should provide to address the challenge elsewhere in the world. For example India has a larger population than all of Africa, but is generally wealthier and would certainly limit massive bilateral interventions by the US. Similarly complex situations exist in the large nations at great risk around the world: Brazil, Indonesia, Russia, and China.

GAAN proposes that the US lead developed nations in committing funding equal to that for Africa on the same 1/3-1/3-1/3 basis to other nations. This would be a total of another \$500,000,000 of which the US would contribute \$170,000,000.

The bottom line: the US would commit to 1/3 of a billion-dollar global

AIDS campaign if joined in doing so by other nations. If this proposal was accepted the US would need to increase its funding for global AIDS programs from the current \$135,000,000 to \$335,000,000. We would urge that this be done rapidly, \$100,000,000 increase per year over two years.

By proposing substantive, but realistic increases in funding the President would demonstrate that the United States is serious in launching this global initiative. GAAN believes that many nations would welcome such a proposal and move forward to participate in this US led endeavor.

3. Expanding Research and Its Benefits

To date the greatest commitment made by the United States to ending the global pandemic is the vast funding of AIDS research that dwarfs the combined efforts of the rest of the world. Of particular importance is the President's commitment to develop a vaccine in the next six years and the funding now being provided to make this commitment a reality. The United States must continue its commitment to AIDS research and the President should formally reiterate this commitment as a central part of American global AIDS efforts.

In addition the President should make clear that it is the United States' intent that the benefits of its research be offered, as far as possible, to the peoples of all nations. This is a vast commitment and surely can not be done by simply purchasing medicines and shipping them overseas. It will require a highly integrated strategy for the US to provide the benefits of its AIDS research to the widest possible number of people.

Five agencies with need to lead this effort:

1. HHS, particularly NIH, will need to develop therapeutics with increased attention to their applicability in developing nations.
2. USAID will need to assist developing nations in expanding their health infrastructures to be able to utilize AIDS medicines.
3. Commerce will need to work with the biotech and pharmaceutical companies to turn promising research into products that could be widely accessible in developing nations.

4. The Trade Representative's Office will need to insure that AIDS medicines are not prevented from reaching the widest number of people because of simplistic or inhumane trade disputes.

5. Treasury will need to make clear to the World Bank and other global financial institutions that the United States expects them to play a lead role in ensuring that AIDS vaccines and medicines reach the people who need them.

In short, the President should declare that United States intends not only to develop AIDS drugs and vaccines, but also to make them widely available. To paraphrase ACT-UP it will be US policy to "get drugs into bodies" and the appropriate agencies should be directed to take the necessary actions to make this policy work.

4. Making AIDS a Government Wide Priority-Essential Policy Changes

AIDS is a disaster of such magnitude and duration that it requires fundamental changes in US international policies and the structures that

implement these policies. In GAAN's opinion most federal agencies are in denial about the most basic reality of the AIDS pandemic this being that AIDS is a global emergency right now and is going to get much worse. It is as important to American interests as war or economic upheaval and should be responded to appropriately by every federal agency.

However in many departments (the telling exception being HHS) the global AIDS pandemic is dealt with as an "add on" to existing programs with either minimal staff at the lowest level or no AIDS expert personnel at all. Coordination within a department is therefore difficult and administration-wide coordination is nearly impossible.

This has occurred for three reasons:

1. Diplomats and others doing foreign policy work are not health experts and are apparently unable to recognize a health emergency, even one as apparent as AIDS.

2. Even when an agency recognizes there is an emergency they do not know how to respond. They are staffed by individuals who have spent their lives training for a political or economic crisis, not a health disaster. They do not see how their agency should respond and are reluctant to venture into areas where they have little expertise.

3. The old analysis of addressing health as a symptom of the economic or political problems of a nation provides a rationale for old policies to remain in place. Agencies can persuade themselves that the best thing they can do for AIDS is to strengthen the political and economic infrastructure and neglect AIDS specific programs. (The fact is that AIDS will be the cause of many nations economic and political woes, not merely a symptom.)

Therefore the president should:

1. Direct all federal agencies notably State, Treasury, Commerce, as well as the Trade Office, USAID, and OMB to approach AIDS as a global emergency, equal to war, and accord it the highest possible priority.

2. Direct all agencies to create within 45 days a global AIDS response plan identifying in detail specific actions they will undertake to address this emergency.

3. Direct all federal agencies to evaluate their need for high level expertise to lead their response and consider elevating AIDS/health experts within each agency or create entirely new positions to meet this need. GAAN specifically urges that the Department of State's Bureau for Oceans, International Environment, and Scientific Affairs be re-designated the Bureau for International Environmental and Health Affairs and be staffed appropriately.

The Interests of the American People

In moving boldly to stop the global AIDS pandemic the President is in line with the will of the American people. Americans know the pain of AIDS and empathize with those in other nations. The AIDS community-millions of people and thousands of organizations-have become increasingly committed to global AIDS issues as demonstrated by many letters,

meetings, and demonstrations over the last few years.

Many Americans also have deep interest in peoples in other nations because of shared culture or language, or simply because this is the land from which their ancestors came to the United States. These people too, want our nation to what it can to stop AIDS around the world.

GAAN firmly believes that our government has not asked too much from the American people to stop the global pandemic, it has asked too little. Americans want to more, to not just lessen the suffering a little bit from this terrible virus, but to end the pandemic. They understand it will not be easy, it will not be cheap, and it will not be fast. But Americans hate the AIDS pandemic and want it ended.

The president should remind Americans of their losses to this virus, of their compassion as a people, and of their unique responsibility as citizens of the only nation that can end this plague. We believe he will find strong and enduring public support for committing the United States to ending the AIDS pandemic.

- Mack Shazu from Labor 693-4776

- 1) He will be here on Monday
- 2) Sect. Herman has no problem convening a meeting with African and American unionists (aka. No one needs to call her) AND in addition to that meeting, they are looking at doing something with South African youth groups to raise awareness – in the hopes that whatever programs were set up would be able to spread to the surrounding areas.



U.S. Agency for International
Development

Bureau for Africa
Office of Sustainable Development
1325 G St., NW Suite 400
Washington, DC 20005

Date: _____

To: Andy

Phone: _____

Fax: _____

From: Alp

Phone: _____

Fax: _____

Number of Pages Including Cover Sheet _____

Message

A hard copy of my edits/suggestions/notes,
for draft report (file sent electronically),
Q

Sandy:

The following are comments to the draft report (the version I had from a week ago Friday).

Summary Section.

Add an item 6:

6. We know what works—interventions have succeeded in many locations. Scaling up these efforts, along with commensurate resources, are required.

(Rationale: It is important to convey that we just don't recognize the problem but we know how to deal with it, and thus can use the resources well).

Page 4 – Findings Section

You may wish to add a subheading "The Problem" before launching into the text at the beginning (see later under page 10).

Page 5 – Findings Section

Para beginning "Fragile health care...": At the end of the first sentence, add a new sentence: "TB now accounts for half of all AIDS deaths in Africa, according to a recent study."

Para beginning with "Further, throughout...": Possibly before the sentence beginning "According to UNICEF," add a new sentence: "Moreover, the enormous numbers of AIDS orphans will have negative effects on African society, particularly on the transmission of traditions, history, values, and norms."

(Rationale: African society, particularly at the village level, relies on oral traditions and history telling. With so many adults dying, the link with the past will be a casualty of the epidemic and its chaotic impacts.)

Page 5 – Graphic. I think it's OK. One minor revision to consider is to amend the graph title to read: "% of All Children Orphaned by AIDS"

(Rationale: this makes it clear that the denominator is all children in the given country).

Page 6 – graphic. Add the source of the data to the graph (in fine print). I believe it is the US Bureau of the Census.

Page 6, bottom, Para beginning with "AIDS is a trade and investment issue": You note that Jeffrey Sachs spoke at the recent meeting with African trade and finance ministers... If that refers to the Ministerial meeting we had in March, Sachs in the end did not speak there. He did prepare some papers for the meeting. As an aside, Treasury and others did not want him there. The quote however is great. The way the statement is currently formulated, it does not refer to *which* meeting he spoke at, so we may be OK. And his thoughts are documented in the papers.

Page 8—Bottom of page, Para that begins "As goes Africa, so will go India, Asia, and the new Soviet...": This is a technicality, but the Soviet Union referred to the old order. I am not sure that it is appropriate to refer to "new Soviet states" as they are now not Soviet and are independent states. One term often used is Newly Independent States, but you may want to check with a State Dept person for the current term.

Page 10 – Add a subheading at the top of the page "The Response". This sets this sub-section apart from the rest of the findings section which discusses the problem.

Perhaps add a new paragraph immediately following such a subheading such as "We know what works.

~~Prevention programs, linked with basic care and support, in several countries have demonstrated success in preventing HIV transmission.~~ But, the scale of these activities is too small. In order to make a lasting

difference, large scale increases in resources are required. Consider that total worldwide spending for AIDS in developing countries (all sources: national, bilateral and multilateral) was \$550 million in 199_ for 34 million cases of AIDS (22 in Africa). Last year, U.S. spending for AIDS was \$6-7 billion for 600,000 cases of AIDS."

p. 13 The special box on MTCT. Numerous typos and missing letters. Para beginning "The lack of health care..." Second sentence, the letter "d" missing from an—should be "and." Para beginning "Further, the AIDS..." Second sentence, the word is "breast". Same sentence, the HIV+ - is confusing, better to spell it out here. Next sentence, women should be singular, woman.

p. 14 - A thought on resources. First, the US is the leader worldwide when it comes to AIDS donor funding (by a large margin, Holland is next at \$30+ million). If the US increases its resources for AIDS, it will send a clear signal to the rest of the donor community to increase their resources as well, thereby leveraging those resources. Increased US funding could also be used as an incentive to leverage important national reforms and resource increases favoring AIDS efforts.

p. 16: Para on "We recommend that the US establish a program..." The terms debt forgiveness and debt swaps are used interchangeably in this paragraph—this should be avoided. Rather than saying a "debt swap agreement" I suggest using a "debt relief agreement."

Item 3 - the headline of the section is unclear: "Other partnerships with African nations (no apostrophe)" is there a word(s) missing here?

Some thoughts on this section. First, there are numerous opportunities where US and African interests intersect. These often occur in established forums such as BNCs, Ministerial meetings, SADC Forums, and so on. Hence, the need for the USG to speak with one voice (a recommendation). A second recommendation involves using the upcoming ICASA and Durban AIDS conferences in Africa to highlight the issue and to send high level US delegations as speakers (particularly multisectoral, not just health).

US Ambassadors to Africa have voiced their tremendous concerns about AIDS in Africa. They have repeatedly asked for more information and action on the part of other USG agencies as well as from their host country counterparts. Moreover, a State Dept cable requiring a demarche on AIDS has been sent out earlier this year. A recommendation could be that the State Department work jointly with other country ambassadors to Africa in a unified diplomatic initiative to apply pressure on host country governments to respond to the AIDS epidemic.

To lead off with this section should be a strong recommendation on either a First Ladies summit or a Presidential summit. To the extent this could be tied down as a possibility (either one) at publication time, the better. It seems that a Presidential Summit would be less likely, but post Kosovo and as we get closer to the end of this Administration, the greater the possibility that it could actually happen. It may depend on the African American community's push as well as any inspiration that could be derived from the example of former President Carter and his efforts surrounding guinea worm and other humanitarian causes. It also begs the question as to what deliverables the US would be able to offer for such an event. But, what an event it could be (and what a workload ☺)

I am not so sure on the AIDS impact statement—moreso on the language used. Apparently, the World Bank is already doing something akin to an AIDS impact statement by requiring that their environmental impact assessments include AIDS. For USAID and other USG agencies working in Africa, we could recommend that AIDS impact assessments be considered to see how a given project would affect or be affected by AIDS.

p. 17 Item 4 - Partnerships with other donors. G8 language on debt forgiveness and use of benefits for social sectors and AIDS especially is moving forward. On a broader level, the US can work with other donors in providing leadership in donor coordination, as well as participating in the international Africa Partnership Against AIDS. To be honest, I cannot think of a headline grabbing initiative here. Working closer with the World Bank is a very interesting proposition—particularly as the Bank is launching their

new AIDS strategy and the US (via USAID) can leverage these WB projects by providing technical assistance to countries. The WB provides the money, the US provides the TA and the marriage is done. A meeting between you and Jan Peerce/Wolfensohn could be useful in developing a specialized initiative that increases/formalizes the WB-USAID relationship.

Item 5 - The Private sector. Business investment is directly linked with the President's "Partnership with Africa" (see p. 14) and his trade initiatives. Thus, the real appropriateness of this type of initiative. Dept of Commerce needs to play a role in this. One idea is to have the President issue awards of excellence to those companies that took the leadership to develop AIDS in the workplace programs. Although symbolic, it is something that companies would value i.e., recognition and PR.

As you have indicated, several US companies have taken the lead in developing AIDS programs: Levi Strauss, Ford, Chevron, and others. Another related initiative is to mobilize American Chambers of Commerce to assist with AIDS advocacy. Another idea is to develop Business Councils on AIDS in many countries that provides the forum for business leaders to talk with one another and support each other.

A Cabinet official/White House (i.e. you?) sponsored meeting for foundations on the topic of AIDS in Africa could be useful to mobilize their interest the subject.

Unions. The Solidarity Center experience with COSATU (Council of South African Trade Unions) is very valuable and should be mentioned. By successfully engaging COSATU and obtaining their agreement to place AIDS as a major labor policy issue, the union council reaches millions of South Africans and others from the region. Next steps are to implement the policies and to set up support programs for the membership.

PVOs and NGOs. The not for profit sectors, represented by international PVOs and indigenous NGOs, play a critical and vital role in the fight against AIDS in Africa, particularly at the community level—where it counts. A recommendation to hold some form of meeting, and possibly awards, would be useful. Global Council and others may have others specific ideas in this area.

Item 6 - Partnerships with the religious community. A White House summit of US and African religious leaders would go a very long way in mobilizing African religious leader commitment to the issue of AIDS prevention and care/support. Religion plays a very important role in the lives of Africans. It is where they derive their hope and seek comfort. It is an extremely powerful mobilizing and social support force. But, on AIDS, many religious leaders and institutions have not been supportive. They have not spoken out, and in many cases have shunned the very people that need their help the most—AIDS infected and affected persons. Key issues are stigma and reducing the discrimination that people with AIDS experience in Africa, as well as creating the spiritual home that all those affected require. All faiths would be welcome. Key US leaders such as Rev. Sullivan and Jackson; Bishop Haines, and other denomination leaders would be invited. US models such as NEAC and African models/inspirations such as the Ugandan and Senegalese experiences, as well as many others would be shared. A product of the meeting could be some form of joint statement of principles. A footnote: the World Parliament of Religions is slated to meet in Durban on Dec 1 1999 and this may provide some competition as far as the date is concerned. The Parliament also wishes to have an AIDS program.

Citations

- p. 2 item 1 – USAID report Children at the Brink
item 2 – UNAIDS and USAID
item 3 – Based on economic and security facts (World Bank, DOD)
item 4 – UNAIDS
item 5 – USAID Uganda and other experiences
- p. 4 First para. Numbers on bubonic plague and influenza probably gotten from public health book
AIDS vs all wars data from Global Health Council. Remainder of para data from UNAIDS December
1998 report.

Second para. UNAIDS and ONAP derivation of South African numbers since World AIDS Day 98.
Graph from UNAIDS.

- p. 5 First para. World Bank Confronting AIDS book. Next section (shattering families) probably derived
from John Williamson (USAID) and UNICEF report.

Graph source: UNICEF?

- p. 6 Life expectancy data and graph derived from US Bureau of Census World Population Reports 1998
report.

AIDS as economic issue. Sachs quote from HIID articles on AIDS (will verify). Economist article from
January 1999 I believe.

- p. 7. World Bank data from Confronting AIDS book. Last para of economic section—South African
study. Not sure which one this is, do you all have it?

DOD for military issues.

South African crime institute report—you probably all have it.

- p. 8 bottom and page 9. UNAIDS data

- p. 10 Leadership matters. Uganda story from Elizabeth Marum, USAID technical advisor, Uganda.

Effective solutions based on your interviews and Jon Williamson's input.

- p. 11 bottom. USAID and others as a source:

- p. 12 Four pronged approach. USAID.

Bottom on MTCT – USAID as source.

- p. 14 bottom. Funding stats from USAID.

- p. 15 top. Again, funding from USAID.

Bottom, US Treasury Dept?

100 ml

10 DOD

- HHS 30

- AID pops 15

480 15

New unob balance 15 (Afr)
(w Health) reductions 20

DOD 10

Head Start

Africa-at-Large

HIV Responsible For Prevalence Of Tuberculosis

All Africa News Agency

July 12, 1999

Nairobi - Scientists and medical practitioners once thought they had caged the Tuberculosis monster permanently in the cupboard of history. How wrong they were. TB has re-emerged; this time round with a lot of potency, thanks to ravaging HIV virus. AANA Correspondent Paul Kermei has more details.

The vengeance of this new TB is already being felt. "HIV is already causing TB to spiral out of control in parts of Africa," is the acknowledgement of Dr Harlem Brundtland, the Director-General of World Health Organisation, made during this year's global congress on health held in Bangkok, Thailand.

Statistics of infection around Sun-Saharan Africa illuminate the seriousness of the pandemic. According to Kenya's National Aids Control Programme NACP, 50 percent of adults in Kenya carry latent TB. Should these adults stay free of HIV infection, the number of new TB cases would be limited to 0.2 percent of the population. This would result in 30,000 to 50,000 new TB cases annually.

However, should the adults get exposed to HIV virus, 90,000 additional TB cases could be expected by the year 2005. NACP makes this projection with the express assumption that there wouldn't be any transmission to others. Nevertheless, the stuck reality is glaring: many are likely to contract and vector the infamous pathogen.

In Malawi, World Health Report for this year report that 77 percent of HIV positive people have concurrent TB. "Among communicable diseases, TB is our single best cause of adult illnesses and death. We had 40,000 new cases last year. And many of these people are dying in their productive years," Malawi's TB Programme Director Felix Salaniponi was quoted as saying by a recent issue of The TB Treatment Observer magazine.

In Botswana, Nigeria, Uganda and South Africa, the WHO report estimates that by the year 2000, the TB incidence rates would be 115 - 1653 per 100,000 inhabitants as compared to 64 - 125 per 100,000 people in 1980. International averages, however, disguise the explosive nature of the disease.

While the dual plague is harvesting lives en masse in some countries, in others the effect is insignificant. In this regard, high burden countries have been identified. These include Nigeria, Kenya, Zimbabwe, Uganda, Tanzania, South Africa and Congo.

...That because HIV suppresses the immune system, people who are harbouring the TB germ and who become infected with HIV are up to 30 times more likely to develop active TB in a given year than those who are infected with TB alone.

The World Health Report 1999 - Making a Difference says that currently "over 6 million people are thought to be co-infected with HIV and TB. TB in people living with HIV/AIDS is expected to increase from about 300,000 cases worldwide to 1.4 million by the year 2000".

This TB/HIV partnership has been explained but casually. Scientists say that TB patients would not have developed the disease if their immune system had not been dented by HIV. That because HIV suppresses the immune system, people who are harbouring the TB germ and who become infected with HIV are up to 30 times more likely to develop active TB in a given year than those who are infected with TB alone. The time scale too is telescoped: An HIV carrier who is exposed to the communicable TB will develop active TB far more rapidly than normal.

WHO has curved out a cure: the famous Directly Observed Treatment Short- course DOTS programme. This standard treatment has been embraced by over 100 countries of the world today... And success stories of its effectiveness have already been noted in some places.

This explanation holds true for the developing world "where TB causes some 25 percent of preventable mortality among young people," says the WHO report. Elsewhere, as in Northern Europe, TB is a passing cold that is tamed by improved living conditions and use of effective chemotherapy.

Any hope then for TB burden countries of Africa? Yes. WHO has curved out a cure: the famous Directly Observed Treatment Short-course DOTS programme. This standard treatment has been embraced by over 100 countries of the world today. And success stories of its effectiveness have already been noted in some places.

Though DOTS is presently the magic bullet against TB, some factors are militating against its success. Such factors include the emergence of multi-drug resistant TB, financial crises, poverty and ignorance, lack of adequate supervision of TB programme and displacement of people due to war and famine.

Malawi health care system had at one time been reported as bursting under the burden of TB congestion in some TB wards had reached levels of three or four patients per bed. The understaffed hospital laboratories could hardly cope with the increased sputum-specimen.

But this is no longer the scenario. When DOTS was employed, the burden eased considerably. The Malawi TB Programme Director, Salaniponi, couldn't help voicing this success excitedly to the TB treatment Observer magazine: "DOTS is one of the few hopes that the country has in treating TB. So if the DOTS programme works in Malawi, then the same method should be effective anywhere in Sub-Saharan Africa".

Though DOTS is presently the magic bullet against TB, some factors are militating against its success. Such factors include the emergence of multi-drug resistant TB, financial crises, poverty and ignorance, lack of adequate supervision of TB programme, displacement of people due to war and famine, substandard treatment either prescribed by private practitioners or their self-medication, among others.

Hence, WHO has introduced a new strategy call - Stop TB Initiative - to back up DOTS. This new approach is a coalition effort which aspires to promote increased investment in TB control in the high burden countries.

The coalition will be in form of global plans of action in drug-making facilities, advocacy, research TB control programme implementation. This new strategy is supported by WHO, the World Bank and other US-based organisations.

But before TB is financially arrested, the havoc it's currently wreaking is hefty: many victims will be yielding to its noose slowly, growing thin and hollowed eyed, as their loved ones watch helplessly.

Others will meet their maker away from home and family, life ebbing out of them in crowded hospital beds where staff are too busy to offer solace. And some will be children who will live their last moments in whirling of pain from TB.

Copyright (c) 1999 All Africa News Agency. Distributed via Africa News Online (www.africanews.org). For information about the content or for permission to redistribute, publish or use for broadcast, contact the publisher.

Orrin G. Hatch

Chairman
Senate Judiciary Committee
Dirksen 224
Washington, D.C. 20510
Tel # (202) 224-6306
Fax # 228-0029



Facsimile Cover Sheet

TO:

CZARNA / ZSKY

July 16, 1999
2:40 pm

FAX NUMBER:

PHONE NUMBER:

FROM:

B. A.

SUBJECT:

TOTAL NUMBER OF PAGES SENT (including cover sheet):

If you do not receive all pages, please call: **202.224.6306**

COMMENTS:

DRAFT TO JVO

This and any accompanying pages contain information from the office of United States Senator Orrin G. Hatch which is confidential or privileged. The information is intended to be for the use of the individual or entity named above. If you are not the intended recipient, be aware that any disclosures, copying, distribution or use of the contents of this information is prohibited. If have received this facsimile in error, please notify our offices by telephone immediately so that we can arrange for removal of the original document at no cost to you.

AS SENT YES TODAY
NO WORD YET

DRAFT
Statement of Sen. Orrin G. Hatch
before the
United States Senate
August X, 1999

"The Problem of Orphans and AIDS in Africa"

Mr. President, I rise today to speak about a serious issue: the AIDS epidemic that running rampant across Africa that is threatening to put an entire generation of African children at risk.

I have spoken on this floor many times about complex issues presented by the AIDS epidemic. I am pleased to have been a co-author and vocal advocate of all the major AIDS legislation that this Congress has enacted. Chief among these bills are:

The Health Omnibus Programs Extension Act, Public Law 100-67 – the so-called "HOPE" bill, signed into law by President Reagan on November 4, 1988.

The Ryan White Act, Public Law 101-381, signed into law by President Bush on August 18, 1990.

The Terry Beirn Community-Based AIDS Research Initiative Act of 1991, Public Law 102-96, signed into law by President Bush on August 14, 1991.

THE NEXT SECTION COULD BE OMITTED IN AN ORAL PRESENTATION BUT IS INCLUDED FOR WEB PAGE AND OTHER PURPOSES, INCLUDING TO A) REVIEW OGH'S CONSIDERABLE ACCOMPLISHMENTS IN THE AREA OF AIDS AND B) POINT OUT THE THESE EFFORTS WERE DIRECTED TO COMBATING THE EPIDEMIC IN THE U.S., WHICH WILL HELP INOCULATE US FROM ANY WHO MIGHT (UNFAIRLY) CHARGE THAT WE ARE NOT TAKING CARE OF OUR OWN CITIZENS FIRST.

[Let me briefly review these bills:

I. The Health Omnibus Programs Extension Act

The AIDS component of the 1988 HOPE legislation was the first comprehensive Congressional legislative response to the AIDS crisis and included:

- authorization of the National AIDS Commission to serve as an important focal point for public discussion;
- a three year authorization of \$270 million for AIDS education;
- \$400 million for anonymous counseling and testing and services for AIDS patients; and,
- authorization to hire 800 additional federal AIDS researchers.

Despite a sometimes contentious debate, the bill passed on

April 28, 1988 by a 87-4 margin, passed the House by a wide margin, and was signed into law by President Reagan.

II. The Ryan White Act

Ryan White was a brave boy -- a young man really -- who died prematurely at age 18 in April, 1988 from complications from the HIV virus after being infected by contaminated blood products used to treat his hemophilia.

The Ryan White Act got its name from an amendment I offered when I noticed his despondent mother, Mrs. Jeanne White, in the Senate Gallery on a day in which the debate was not faring too well. Frankly, associating this legislation with the face of such a brave boy as Ryan White who came from a fine family for the heartland helped tremendously in the passage of this bill.

One of the great problems we confronted in the AIDS epidemic in the 1980s -- and it is a problem that still persists to some extent today -- is that AIDS is a primarily a disease of the young who often are not adequately insured. Most are not eligible for either Medicare or Medicaid. Accordingly, there was a great need for services for the 1 million Americans estimated to be infected with HIV.

The Ryan White bill addressed this problem by providing nearly \$900 million in 1991 funding, and such sums as necessary for FY 92-95, for local health and social service organizations providing care to AIDS patients, including:

- \$275 million for emergency grants to cities hardest hit by the epidemic;

- \$275 million in state treatment services grants, and,
- \$230 million in state "early intervention" grants such as counseling and testing activities.

The Ryan White law was reauthorized in 1995 and I am certain the Ryan White law will be reauthorized again before this Congress adjourns.

III. The Terry Beirn Act.

Terry Beirn was one of Senator Kennedy's hardest working and most effective staff members. He worked on both the HOPE legislation and the Ryan White Act and helped staff 7 Labor Committee hearings on AIDS that took place between 1987 and 1989.

The Terry Beirn Act amended the Public Health Service Act to require clinical trials to be designed to encourage participation of the existing consortia of HIV primary care providers. This bill was instrumental in changing the traditional manner in which clinical trials were conducted by bringing the trials closer to the patients.

At first, the entire biomedical research establishment, including NIH and FDA, resisted this effort which required these agencies to work much more closely with pharmaceutical companies and local physicians and HIV-infected patients in designing and conducting clinical trials.

Frankly, the Terry Beirn Act provides the model that other disease groups, such as breast cancer patients, have adopted to

get the latest and best research to the most patients as quickly as possible.]

END OF OGH'S PAST INVOLVEMENT WITH AIDS LEGISLATION DISCUSSION

So I have been involved in the battle against AIDS for a long time. And this portfolio of legislation made a big difference -- and continues to make a big difference -- in the course of the AIDS epidemic and many other diseases in the United States and abroad.

One lesson that I learned during the course of this epidemic is that effectively fighting AIDS takes more than just the effort of government alone. Also critical are the active participation of private sector pharmaceutical firms and university-based scientists who together conduct the necessary research into the disease. As well, there are thousands of local non-profit service organizations that help provide care and assistance to HIV-infected individuals.

For example, this past June, I was pleased to have been a co-chair -- with my colleague from California, Senator Boxer, of the Pediatric AIDS Foundation fund-raising dinner that celebrated the organization's 10th Anniversary. We raised over \$2 million at that event.

Just ten years ago, our former colleague, Senator Howard Metzenbaum and I co-chaired the first Pediatric AIDS fundraiser which raised the first \$1 million for the worthy cause of helping children with HIV.

I am proud to say that in the ensuing 10 year time period the Elizabeth Glaser Pediatric AIDS Foundation has raised over \$75 million to help children with AIDS.

The resolution on Pediatric AIDS that this Senate passed by unanimous consent on June 10, 1999 contains a number of sobering findings with respect to the toll that AIDS has taken among children:

There are 15,000 children in the United States currently infected with HIV and AIDS is the 7th leading cause of death for children in the United States.

Some 2.7 million children have died worldwide from AIDS since the start of the epidemic and it is estimated that an additional 40 million children will die due to AIDS by the year 2020.

The Pediatric AIDS Crisis in Africa

I want to focus my remarks on the course of the AIDS epidemic in Africa and place particular emphasis on the almost unthinkable burden that the children of sub-Saharan Africa bear because of the widespread prevalence of HIV infection.

Let me be blunt: Nothing less than the future viability of sub-Saharan Africa is at stake due to the AIDS virus.

But before I lay out the pertinent facts that support this sobering assessment, I want to first tell you about a recent meeting that Archbishop Desmond Tutu of South Africa requested with me.

With justification, Archbishop Tutu is recognized as one of

the greatest religious and moral leaders in the world today.

Archbishop Tutu came to see me and ask for help on behalf of Africa's children who have been infected with HIV or orphaned by AIDS.

Actually, the very first thing he did was something unusual for a governmental meeting.

The Archbishop started our meeting with a prayer. It was a short, simple prayer for the children of Africa and throughout the world beset by the problems associated with the AIDS epidemic.

And next Archbishop Tutu did something that very few foreign dignitaries ever do, or ever do as well.

He gave me his sincere and obviously heartfelt thanks for the help that the United States has already given to the children of Africa suffering from AIDS.

I wanted to share this with my colleagues in the Senate and with the members of the public who may be watching or reading about these proceedings today because Archbishop Tutu was thanking all of our citizens for the humanitarian aid that our Nation has made to help those afflicted by AIDS in Africa.

We in this country have already made a significant contribution and commitment -- in fact, we will spend about \$112 million helping combat AIDS in Africa this year.

I just want everyone to understand that Archbishop Tutu made it clear to me that the efforts of the United States and other nations are tremendously helpful and greatly appreciated by the people of Africa.

When I review the key facts and statistics of how this epidemic strikes at the heart of Africa, I know that there can be little doubt that this disease threatens to reverse the development gains made in Sub-Saharan Africa in recent years.

Here are some of the relevant facts:

Each day about 11,000 persons are infected with HIV in Africa; that is about one infection every eight seconds and about one-half of these individuals are children.

Sub-Saharan Africa is the home to 70% of people who became infected with AIDS last year.

Since the start of the epidemic 83% of all AIDS deaths have occurred in this region.

Last year AIDS resulted in 2 million African deaths; this amounts to 5,500 funerals a day.

An estimated 34 million people infected with HIV are or were sub-Saharan Africans -- including 11.5 million who have died due to complications arising from this disease; about one quarter of these dead were children.

By 2008 there will be an estimated 40 million African children who have lost at least one parent due to AIDS; while this number represents 95% of all such children who have lost at least one parent due to AIDS, sub-Saharan Africa constitutes only about 10% of the world's population.

In 1998, Africa accounted for 90% of new infections among children under 15 years of age and about one quarter of all

children are living in a family where a parent is HIV positive and in need of care.

In large part due to the demographics of AIDS deaths, for the foreseeable future, in sub-Saharan Africa children under age 5 will continue to outnumber adults over age 44 and there will be 12 times as many children under age 15 as adults over age 64 in this region.

Four out of five HIV positive women in the world live in Africa. Virtually all African children are breast-fed. And breast-feeding is thought to account for between one-third and one-half of all HIV transmission from mother to child.

In large part as a result of HIV infection, infant mortality will double and child mortality will triple over the next decade in many areas of sub-Saharan Africa.

By 2010, AIDS will decrease life expectancies by more than 20 years in sub-Saharan Africa. For example, but for the AIDS epidemic, citizens of Botswana, Zambia, and Zimbabwe would have had life expectancies between 60 and 70 years of age, but instead will have life expectancies of only around 30 years due to HIV/AIDS.

In the next few years deaths resulting from AIDS in sub-Saharan Africa will surpass the estimated 20 million people who perished during the plague year of 1347.

Over the next decade AIDS will kill more people in Sub-Saharan Africa than all the casualties in all wars in the 20th century combined.

Let me repeat that: Over the next decade AIDS will kill more people in Sub-Saharan Africa than all the casualties in all wars in the 20th century combined.

All these statistics add up to explain why public health experts have characterized AIDS in Africa as the worst infectious disease catastrophe since the bubonic plague.

And we must all be mindful that behind these grim summary statistics are millions of individual tales of human pain and suffering that depict the disintegration of entire families and communities and collectively represent the potential destruction of any kind of normal society throughout sub-Saharan Africa.

In addition to the public health impact, there are important trade and economic dimensions to the epidemic. For example, *The Economist* magazine reports that recent studies have projected that AIDS has cost Namibia almost 8% of GDP in 1996 and that by 2005, Kenya's GDP will be 14% less than it would have been absent AIDS. The World Bank predicts that Tanzania's GDP will be 15% - 25% lower due to AIDS. The South African government estimates that the AIDS epidemic saps 2% of GDP each year - a situation that will only deteriorate into the future.

AIDS in Africa also presents sensitive security and stability issues as infection rates in military and police forces are high. In 1992, the State Department warned that HIV infection in armies could hurt "some rulers' ability to maintain their hold on power, mainly in Africa." In this regard, I would

note and emphasize that John Deutch, former Director of the CIA, has recently said that HIV/AIDS is "a perfect example of a factor ... that can influence political and social stability. It's tremendously important. It's going to constrain economic growth and the ability to launch social programs."

The U.S. Agency for International Development, recently studied the effects of the AIDS epidemic on children throughout the world, with a main focus on the AIDS epidemic in Africa. This AID study, *Children on the Brink*, contains a number of harsh assessments relating to the future prospects of Africa.

After analyzing the type of data that I have just reviewed, AID concludes that, "(i)t is impossible to overemphasize or exaggerate the scope and complexity of challenges faced by children affected by HIV/AIDS and their families, communities and government responsible for them."

The *Children on the Brink* report paints a bleak future for the children of Africa:

"In short, children in households affected by HIV/AIDS face loss of their family and their identity, severe emotional distress, increased malnutrition, the loss of health care, the increased likelihood they will be forced into child labor, reduced opportunities for education, the loss of their inheritance, forced migration, homelessness and increased exposure to HIV infection."

HELPING TO STEM THE TIDE OF THE AIDS EPIDEMIC IN AFRICA.

Let me just say that while I do not believe that the United States should be -- or can be -- the world's doctor anymore than we should be or can be the world's policeman, I do think that our Nation has a proud and distinguished tradition of helping those who are trying to help themselves.

Helping our neighbors -- be they across the street or across an ocean -- is a core American value.

When a leader like Desmond Tutu asks for our help, I think we owe it to him -- and to the better side of our angels -- to try to help.

South Africa's recently elected successor to Nelson Mandela, Thabo Mbeki, clearly recognizes the importance of effectively combating the AIDS epidemic for South Africa to succeed in the future. As President Mbeki has said:

"For too long we have closed our eyes as a nation, hoping the truth was not so real. For many years, we have allowed the human immunodeficiency virus to spread ... at times we did not know that we were burying people who had died from AIDS. At other times we knew but chose to remain silent.

Now we face the danger that half of our youth will not reach adulthood. Their education will be wasted. The economy will shrink. There will be a large number of sick people whom the healthy will not be able to maintain. Our dreams as a people will be shattered."

Mr. President, I think that this frank appraisal pretty much sums up the situation for much of Africa today.

I know that no one in this body wants to see the future of Africa shattered by the devastation wrought by a deadly disease.

So I call upon my colleagues to redouble our efforts to help our friends and neighbors in South Africa -- and throughout the sub-Saharan region of the continent -- in their struggle against this nightmare epidemic.

Let us work together so that the children of Africa can share the same dreams of our own children and grandchildren.

I am blessed to be the father of 6 children and 19 grandchildren -- and Elaine and I are expecting our 20th grandchild shortly.

So I know, firsthand and many times over, that the blessing of good health plays a large role in allowing our children and grandchildren to realize their hopes and dreams. And I also understand how a disease such as AIDS can destroy the peace, prosperity, and happiness of an entire family.

Frankly, the statistics that I reviewed concerning the severity of the AIDS crisis in Africa are almost unfathomable.

These statistics cry out for action.

I want to underscore the point that the United States already has a strong track record with respect to the African AIDS crisis. In FY 99, we will devote over \$112 million to this enormous problem.

I can tell you from my meeting with Archbishop Tutu, the African people are greatly appreciative of this substantial commitment by the citizens of our country.

But given the magnitude of the problem that I have described for my colleagues today, I hope you agree with me that we simply must try to find a way to do even more.

And we should do this on a non-political, bi-partisan basis.

We can do this on bi-partisan basis -- just like we have done so many times in the past on AIDS legislation.

In that spirit, I applaud the efforts of our colleagues in the House last week for the hearing of the House Government Reform Committee, Subcommittee on Criminal Justice, Drug Policy, and Human Resources that centered on the problems of the AIDS epidemic in Africa.

I think that Subcommittee Chairman John Mica got it exactly right when he made the following assessment at the House hearing of the AIDS epidemic in Africa:

"This growing problem is both a trade issue and a health issue and certainly a humanitarian issue that we cannot ignore."

My good friend from across the aisle, Senator Leahy of Vermont, recently wrote a letter to the editor of *USA Today* in which he issues a call for action:

"...some 22.5 million people in Sub-Saharan Africa [are] infected with HIV/AIDS... That exceeds the population of Texas and it does not include 11.5 million Africans who have died from this incurable disease. The numbers are

staggering... The Clinton administration and Congress have failed to respond adequately to this calamity. Since 1993, U.S. funding for international HIV/AIDS prevention has remained stagnant at \$125 million."

And I must also recognize the efforts of the Administration which last week issued a report of a Presidential fact-finding mission to Africa, led by the dedicated and able White House AIDS Policy Director, Ms. Sandy Thurman. The Thurman report provides an excellent assessment of the crisis and recommends a budget amendment that will provide an additional \$100 million in United States funding for HIV/AIDS programs in Africa. The report also challenges other G-8 member countries to make a commensurate increase in their support.

While I have a number of questions and concerns about the particulars of where the funding would come from and how these resources should be invested, I have no questions about whether we should try to do something this year. I am supportive of this initiative and pledge to work on this matter with members of the appropriations committee and relevant subcommittees -- including working with my colleagues across the aisle and within the Administration. We must see whether, even at this relatively late date in the appropriations cycle, we can identify additional funding mechanisms for the Agency for International Development, HHS and other entities involved in AIDS activities in Africa.

As the House hearing and Ms. Thurman's report has cataloged, there is a strong body of evidence that the support of prevention efforts by community-based organizations pays great dividends.

Perhaps the best example that real and sustained United States assistance can help turn the tide of this relentless pandemic can be found in the experience of Uganda; education and the provision of HIV counseling and testing as well as basic AIDS care and support have dramatically reduced infection rates in Uganda.

With the help of CDC and USAID, Uganda -- one of the countries hardest hit by the epidemic -- has made great strides in AIDS prevention after instituting rigorous public education and counseling and testing programs. In urban areas of Uganda, the incidence of HIV infection been in cut in half. The incidence of HIV infection among women attending antenatal clinics has dropped about one-third since the early 1990s. And still other studies have shown a 2-plus year increase in the age of first sexual encounter and a decrease in sexual activity among young people.

This success story in Uganda is encouraging and, with the some help, can provide a road map for saving millions of lives across Africa. It would be a grave mistake at this time not to help assure that these successful local efforts to prevent the spread of AIDS are not duplicated to the greatest extent possible across the sub-continent.

One of the great lessons we have learned in fighting the AIDS epidemic in our own country is that prevention, education, and counseling and testing programs can work.

This is not to say that every particular educational technique or message that works in America will work in Africa.

Clearly, there are cultural differences.

But just as clearly, there are important commonalities.

And let me close my remarks today by quoting Archbishop Tutu on one of the most significant shared values at stake in this effort. Speaking of the plight of children living amidst the AIDS epidemic, Archbishop Tutu said:

"We are one world, and these children are our children.

Their destiny is our destiny. Each of us can make a difference. Each of us can help save lives. Let us wage this holy war together. And for the sake of the children, we will win."

We all should hope and pray that, working together, we will win this war.

So I ask my colleagues, particularly my colleagues on the Appropriations Committee and its relevant subcommittees, to give every consideration to this plea for your help and support in this effort. This body has come together on AIDS legislation in the past and I hope we can do so again in the near future.

Mr. President, I yield the floor.

8th Congressional District

San Francisco, California

Fax Transmission
from
The Washington Office of
Congresswoman Nancy Pelosi

Phone #: 202/225-4965



Fax #: 202/225-8259

ATTENTION: _____

Sandy Thurman

FROM: _____

Chris Collins

DATE: _____

of Pages: 2
(Including cover sheet)

Message/Instructions: _____

*Sent today**Chris*

Action Required: _____

NANCY PELOSI
8TH DISTRICT, CALIFORNIA

2457 RAYBURN BUILDING
WASHINGTON, DC 20515-0508
(202) 225-4965

DISTRICT OFFICE:
FEDERAL BUILDING
450 GOLDEN GATE AVENUE
SAN FRANCISCO, CA 94102-3460
(415) 556-4867
nf.nancy@mail.house.gov
<http://www.house.gov/pelosi>

Congress of the United States
House of Representatives
Washington, DC 20515-0508

COMMITTEE ON APPROPRIATIONS

SUBCOMMITTEES:
LABOR-HEALTH AND
HUMAN SERVICES-EDUCATION
RANKING MEMBER
FOREIGN OPERATIONS, EXPORT FINANCING
AND RELATED PROGRAMS

PERMANENT SELECT COMMITTEE
ON INTELLIGENCE

HUMAN INTELLIGENCE, ANALYSIS, AND
COUNTERINTELLIGENCE

CONGRESSIONAL WORKING
GROUP ON CHINA, CHAIR

AT-LARGE WHIP

August 3, 1999

The Honorable John Porter
Chairman
Appropriations Subcommittee
on Labor-HHS-Education
2373 Rayburn Building
Washington, D.C. 20515

Dear Mr. Chairman:

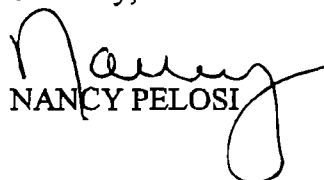
In my Appropriations request letter to you in April of this year, I requested a \$35 million increase in international AIDS funding at the Centers for Disease Control (CDC). I am pleased that the President has recognized the urgent need to expand our commitment to fighting the international AIDS epidemic by requesting a total of \$100 million at several agencies for fiscal year 2000.

In the President's proposal, \$35 million in funding would be provided to CDC for HIV prevention and treatment services. The President's proposal for use of new CDC funds is consistent with my intent to increase international AIDS funding through the Labor-HHS-Education Appropriations bill.

I hope that the Labor-HHS-Education Subcommittee will be able to provide at least \$35 million for international AIDS as outlined in the President's proposal.

Thank you for your consideration of this request, and for your continued leadership on our Subcommittee.

Sincerely,


NANCY PELOSI

*** TX REPORT ***

TRANSMISSION OK

TX/RX NO	0060
CONNECTION TEL	912125563815
CONNECTION ID	
ST. TIME	08/12 13:12
USAGE T	04'24
PGS.	9
RESULT	OK



OFFICE OF NATIONAL AIDS POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
THE WHITE HOUSE

FACSIMILE TRANSMITTAL SHEET

TO:	FROM:
<u>Tina Rosenberg</u>	<u>Sandy Thurman</u>
COMPANY:	DATE:
FAX NUMBER:	TOTAL NO. OF PAGES INCLUDING COVER:
<u>212-556-3815</u>	
PHONE NUMBER:	

RE:

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

If you have any other questions,
please feel free to call us.

Sandy



OFFICE OF NATIONAL AIDS POLICY
EXECUTIVE OFFICE OF THE PRESIDENT
THE WHITE HOUSE

FACSIMILE TRANSMITTAL SHEET

TO: Tina Rosenberg FROM: Sandy Thurman
COMPANY: DATE:

FAX NUMBER: 212-556-3815 TOTAL NO. OF PAGES INCLUDING COVER:
PHONE NUMBER:

RE:

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

If you have any other questions,
please feel free to call us.

Sandy

736 Jackson Place
Washington, DC 20503
(202) 456-2437
(202) 456-2438 (fax)

Joining Forces for LIFE:
Leadership and Investment in Fighting an Epidemic
A Global AIDS Initiative

I. Increasing the US Government investment in the global battle against AIDS to begin to reflect the magnitude of this rapidly escalating pandemic.

Making a difference in Africa and in other highly impacted areas requires broader political commitment, enhanced community mobilization, and, most urgently, increased resources. In 1998, spending on AIDS in Africa totaled only \$165 million. Compared to the ever-escalating need and other health programs, this amount is woefully inadequate. For example, in 1998, over \$500 million was spent for basic childhood immunization programs in Africa. Based on our experience in those countries that are starting to demonstrate success, such as Uganda and Senegal, UNAIDS and donors now agree that a minimum of \$600 million is needed in sub-Saharan Africa per year for HIV prevention alone (\$2 per adult per year).

While we acknowledge the leadership role that the US plays globally and the urgent need to act, clearly an effort to combat AIDS must be driven by many actors including host countries, multi-lateral organizations, and bi-lateral donors, to be successful. In FY1999, the US Government spent \$74 million in USAID prevention and care in Africa and \$38 million in HHS research and surveillance/prevention. But more remains to be done in sub-Saharan Africa and in other seriously affected parts of the world.

The Administration proposes to commit an additional \$100 million in FY2000 to the global battle against AIDS. This initiative will enable us to move forward on four critically important and interconnected fronts including:

- **Containing the AIDS Pandemic (\$48 million)** Implement a variety of prevention and stigma reduction strategies, especially for women and youth, including: HIV education, engagement of political, religious, and other leaders; voluntary counseling and testing; interventions to reduce mother-to-child transmission (MTCT); and enhance training and technical assistance efforts, including Department of Defense efforts with African militaries.

- **Providing Home and Community-Based Care (\$23 million)** Deliver counseling, support, palliative and basic medical care including treatment for sexually transmitted diseases, opportunistic infections (OIs), and tuberculosis (TB) through community-based clinics and home-based care workers. Enhance training and technical assistance efforts.
- **Caring for Children Orphaned by AIDS (\$10 million)** Assist families, extended families, and communities in caring for their children through nutritional assistance, education, training, health, and counseling support, in coordination with micro-finance programs.
- **Strengthening Prevention and Treatment by Augmenting Planning, Infrastructure, and Capacity Development (\$19 million)** Strengthen host country ability to plan and implement effective interventions. Strengthen the capacity for effective partnerships and the ability of community based organizations to deliver essential services. Strengthen surveillance systems to track the epidemic and target HIV/AIDS programs.

This US Government assistance would be provided through AID (\$55 million), HHS (\$35 million), and DoD (\$10 million). The focus of this funding is HIV prevention, and AIDS care and treatment. In those areas, this initiative represents nearly a doubling of funding in Africa from current levels (\$81 million in FY99, which excludes research). The Administration recognizes the fight against AIDS must be sustained to keep pace with this burgeoning epidemic, and is committed to a multi-year effort in this critical area.

II. Building partnerships with other key stakeholders to maximize our impact on the rapidly expanding pandemic.

Increasing US investment in the global battle against AIDS is critical, but is not sufficient to achieve the outcomes needed. The commitment of in-country political leaders and of various segments of civil society are key to success. Moreover, resources provided by the US Government need to help leverage, and to be coordinated with, those of other donors, the private sector, and national governments to ensure synergy and to maximize impact. Building partnerships with key stakeholders in support of effective action at the community level is our greatest hope for progress.

This initiative will pursue a variety of strategic opportunities for challenging other partners to join in an enhanced effort, including:

- **Leadership Meeting** On September 7, 1999, First Lady Hillary Rodham Clinton will convene a meeting of key US officials, The World Bank, UNAIDS, as well as heads of foundations, corporate CEOs, and others to discuss how best to enhance AIDS prevention and treatment efforts in Africa and around

the world. The meeting will focus not only on leveraging additional resources, but also on establishing priorities, identifying effective public/private partnerships, and identifying targets for action to combat the crisis of HIV/AIDS.

- **African Leaders Summit** We propose hosting a high-level meeting with Africa government and community leaders within the next ten months. This meeting will highlight the critical role of leadership in arresting the epidemic and will work to encourage increased leadership efforts. Topics will include the economic impact of HIV/AIDS, examination of models of success in reducing the transmission of HIV, and addressing the need for increased investment in health programs. Additional topics will include AIDS care and treatment and support for children orphaned by AIDS.
- **UN Conference on Children Orphaned by AIDS** On December 1, 1999 (World AIDS Day), the United Nations in conjunction with the National Black Leadership Commission on AIDS, The White House Office of National AIDS Policy, The Magic Johnson Foundation and a variety of NGOs, will organize a conference to focus attention on the growing number of children orphaned by AIDS worldwide. Special emphasis will be placed on assessing the needs of orphaned children in sub-Saharan Africa and the Americas. Participants will include noted experts on the priority issues identified by UNAIDS, UNICEF, and other UN agencies.
- **Business** The Department of Commerce will facilitate a meeting of business leaders active in Africa to encourage them to increase their efforts to rise to the AIDS challenge. Given the impact that AIDS is having on businesses as well as the overall economic-impact on African countries, such a meeting will seek enhanced business commitment and involvement in AIDS programs.

The Commerce Department will work with American Chambers of Commerce abroad and other business organizations to publicize the successful AIDS efforts of US firms in Africa and to support others taking similar action. In addition, the Department will direct work to promote closer coordination in Africa between Commercial Service Offices, other USG agencies, the business community, and African NGOs in a united effort to promote corporate partnership in AIDS programs.

- **Labor** The Secretary of Labor will facilitate a meeting of US and African labor leaders, and will be co-chaired by the AFL-CIO. The success of the AFL-CIO and its Solidarity Center in South Africa (supported by USAID) in working with the South African Trade Union Federations to include AIDS as a key labor outreach and policy issue provides a model for similar action elsewhere. Outcomes include assisting labor organizations in educating their members

and securing commitments to develop workplace-based AIDS education and prevention programs, including outreach to youth.

- **Religious Leaders Summit** The US government will facilitate a meeting of African, American, and other religious leaders to discuss the important role of communities of faith in the fight against AIDS. In Uganda and Senegal, the involvement of religious communities and leaders had a dramatic impact on the ability of these two countries to reduce HIV incidence and to maintain it at low levels over time. The outcome of such a meeting would be to increase attention to the need for involving religious communities, to mobilize these organizations and leaders in the fight against AIDS, and to identify ways to support their efforts.
- **Diplomatic Initiatives** The Department of State, NSC, and ONAP will work with US and African ambassadors to increase attention to AIDS within the diplomatic community. The NSC, the Department of State, and USAID will work with G-8 and other donors, and challenge them to match the increased investment put forward in this initiative.

“Joining Forces for LIFE: Leadership and Investment in Fighting an Epidemic” is an excerpt from *Report on the Presidential Mission on Children Orphaned by AIDS in sub-Saharan Africa: Findings and Plan of Action*, The White House, June 19, 1999.

HHS NEWS

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

FOR RELEASE

Wednesday, July 14, 1999
12:00 p.m. Eastern Time

CONTACT:

Laurie K. Doepel
Office of Communications
and Public Liaison
(301) 402-1663

Researchers Identify a Simple, Affordable Drug Regimen That Is Highly Effective in Preventing HIV Infection in Infants of Mothers With the Disease

A joint Uganda-U.S. study has found a highly effective and safe drug regimen for preventing transmission of HIV from an infected mother to her newborn that is more affordable and practical than any other examined to date. Interim results from the study, sponsored by the National Institute of Allergy and Infectious Diseases (NIAID), demonstrate that a single oral dose of the antiretroviral drug nevirapine (NVP) given to an HIV-infected woman in labor and another to her baby within three days of birth reduces the transmission rate by half compared with a similar short course of AZT. If implemented widely in developing countries, this intervention potentially could prevent some 300,000 to 400,000 newborns per year from beginning life infected with HIV.

"This extraordinary finding is the most recent in our efforts to bring an end to AIDS, not only in the United States but in countries around the world," says Health and Human Services Secretary Donna E. Shalala. "American scientists along with our international partners are committed to developing treatments that not only work, but that are also feasible in other health care settings. These results achieve both those goals."

"This study represents the most promising advance to date toward the goal of finding strategies that can be used worldwide to prevent the spread of HIV from infected mothers to their infants," says NIAID Director Anthony S. Fauci, M.D. NIAID is a component of the National Institutes of Health.

In an announcement from Kampala today, Ugandan officials hailed the finding. "This research provides real hope that we may be able to protect many of Africa's next generation from the ravages of AIDS," said Crispus Kiyonga, M.B.Ch.B., Uganda's Minister of Health. "We commend the collaborative effort of our country's scientists, led by Professor Francis Mmiro

(more)

from Makerere University Faculty of Medicine, and their U.S. colleagues, led by Dr. Brooks Jackson from The Johns Hopkins University School of Medicine."

Finding affordable interventions for developing countries is key to curtailing the global AIDS epidemic. In parts of the hardest-hit area, sub-Saharan Africa, up to 30 percent of pregnant women are infected with HIV, and 25 to 35 percent of their infants will be born infected. The UNAIDS estimates that approximately 1,800 HIV-infected babies are born every day in developing countries.

Unfortunately, the standard AZT regimen used to prevent perinatal HIV transmission in the United States is too expensive and impractical for widespread use in developing countries where many women may not receive prenatal care.

Based on average U.S. wholesale costs, the cost of the drug used in the nevirapine regimen in the current study is approximately 200 times cheaper than the long-course AZT used in the United States, and almost 70 times cheaper than a short course of AZT given to the mother during the last month of pregnancy – a regimen tested in Thailand by the Centers for Disease Control and Prevention and reported effective in 1998.

The Uganda study investigators, part of the NIAID-supported HIV Prevention Trials Network (HIVNET), opened the trial two years ago at Mulago Hospital, affiliated with Makerere University, in Kampala, Uganda. They completed enrollment last April. All women entered into the study were in their ninth month of pregnancy. None had taken antiretroviral drugs while pregnant.

The study, known as HIVNET 012, compared the safety and efficacy of two different short-course regimens of antiviral drugs administered late in pregnancy. The women were assigned at random to receive either a 200-mg dose of oral nevirapine at the onset of labor, followed by a 2-mg/kg oral dose given to their babies within three days of birth; or a 600-mg dose of AZT at the onset of labor, and 300-mg doses every three hours thereafter during labor. The infants born to mothers in the AZT group received 4 mg/kg given twice daily for the first week of life. Both drugs appeared to be safe and well-tolerated.

Study design, data collection and analysis was provided by a team of researchers led by Thomas Fleming, Ph.D., a biostatistician at the Fred Hutchinson Cancer Research Center and the University of Washington School of Public Health and Community Medicine in Seattle.

For the interim analysis, the study team looked at data from 618 mothers (308 receiving AZT and 310 receiving nevirapine) and their infants.

(more)

Nevirapine was markedly more effective. At 14 to 16 weeks of age, 13.1 percent of infants who received nevirapine were infected with HIV, compared with 25.1 percent of those in the AZT group.

"In this study, the short-course nevirapine regimen resulted in a 47 percent reduction in mother-to-infant HIV transmission compared with a short course of AZT. The implications of this study for developing countries, where 95 percent of the AIDS epidemic is occurring, are profound," says Brooks Jackson, M.D., the lead U.S. investigator on the trial.

Long-term follow-up of both the mothers and their babies remains a high priority to assess any late drug toxicities as well as long-term survival. The mothers and their children will continue to be actively followed until the babies are 18 months old. This period is critical to establish the efficacy of the intervention because even if a baby is born HIV-free, he or she may acquire the virus during breastfeeding. The data analyzed so far cover only the first three months of the newborn's life. Ugandan and U.S. investigators will soon launch a follow-up study to evaluate the efficacy of nevirapine administered to the mother during labor and to the newborns for a longer period of time.

Breastfeeding is practiced widely in developing countries. Most studies indicate that the rate of HIV transmission via breastfeeding is highest in the first few months of life. No intervention other than not breastfeeding has yet been shown to prevent HIV transmission through breast milk.

The single-dose nevirapine regimen to mother and infant substantially lowers the cost barrier that has kept many countries from adopting drug strategies that prevent perinatal HIV transmission. Still, access to other health care services required to implement this regimen, such as counseling and voluntary HIV testing, are beyond available resources of many developing countries. But if further research upholds nevirapine's good safety record, the investigators say that potentially all pregnant women who live in areas of high HIV prevalence could receive the drug during labor, even in the absence of an established HIV diagnosis.

In the United States and other industrialized countries, many HIV-infected pregnant women already take combination drug regimens that include AZT. A study now being conducted in the United States and Europe is evaluating if adding nevirapine to standard treatment regimens will have any extra benefit in preventing perinatal HIV transmission in these countries. For pregnant women who do not know their HIV status until they begin labor, the nevirapine regimen provides a last-minute prevention option.

(more)

Nevirapine, developed by Boehringer Ingelheim Pharmaceuticals, is a non-nucleoside reverse transcriptase inhibitor, and is in a different class of antiviral drugs than AZT but works against the same HIV target enzyme that is critical for the virus to infect new cells. It can be easily stored at room temperature. Besides being inexpensive and potent, nevirapine is rapidly absorbed and transferred across the placenta to the infant, and it breaks down slowly. For these reasons, it was thought that even a single dose to the mother and infant might provide enough protection to the baby during the time of exposure to HIV at birth. In March 1996, nevirapine was licensed in the United States for treatment of HIV infection in adults. AZT, made by Glaxo Wellcome, was first approved in the United States to treat AIDS in 1987. In August 1994, AZT received an additional indication for use in preventing perinatal HIV transmission.

NIAID is a component of the National Institutes of Health (NIH). NIAID conducts and supports research to prevent, diagnose and treat illnesses such as HIV disease and other sexually transmitted diseases, tuberculosis, malaria, asthma and allergies. NIH is an agency of the U.S. Department of Health and Human Services.

###

TV Reporters, Editors and Producers: a video b-roll, including soundbites of the study investigators, is available via satellite. It can also be requested from the NIAID Office of Communications and Public Liaison at 301-402-1663.

Downlink Information:

Date: Wednesday, July 14, 1999

Time: 1:00 p.m.-1:15 p.m. EST AND 3:00 p.m. - 3:15 p.m. EST

Satellite: Telstar 6 (93 degrees west longitude)

Downlink frequency: 3820

Polarization: horizontal

Audio frequency: 6.2 and 6.8

C Band

Transponder 6/Channel 6

For technical information, contact ATC Teleports at 703-750-0010.

Press releases, fact sheets and other materials are available on the NIAID Web site at www.niaid.nih.gov.



The National Institute of Allergy and Infectious Diseases
is a component of the National Institutes of Health,
U.S. Department of Health and Human Services





cleared
per Sandy
9/14/99
(spoke to
Anna)

DOMESTIC POLICY COUNCIL

Date: 9/14/99

To: Cheryl Baurle

From: Anna Richter (6045 65565)

Telephone: ~~Fax~~ 62439

Subject: Global AIDS - ~~DOD~~ FY00 Appropriation Bill

Pages: 7 (Including this cover sheet)

Comments:

Sorry for the time constraint →
it was just sent to us -

Thanks

(I marked
section we need clearance on)

Draft

The Honorable C. W. Bill Young
Chairman
Committee on Appropriations
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

The purpose of this letter is to provide the Administration's views on the Department of Defense Appropriations Bill, FY 2000, as passed by the House and the Senate. As the conferees develop a final version of the bill, your consideration of the Administration's views would be appreciated.

Though the House and the Senate bills provide requested funding for many of the Administration's priorities, including necessary readiness and modernization efforts, these bills raise several serious budgetary and policy concerns. In particular, with regard to the overall topline level and funding for the F-22, the Administration strongly prefers the Senate version of the bill.

In particular, the House bill deletes funding for procurement of the first six F-22 fighter aircraft. The Administration strongly opposes this reduction. The F-22 is optimized to perform a crucial role -- achieving air superiority early in any future conflict, even against adversaries equipped with air-to-air and surface-to-air weapons that will be deployed in the first half of the next century. No other aircraft, including the F-15 or the proposed Joint Strike Fighter, will be able to fulfill that role. In addition to damaging the Air Force's future ability to achieve one of its fundamental missions, the House action would waste valuable resources by forcing the Air Force to modify its contracts, thereby significantly increasing program costs. As Secretary Cohen indicated in his July 15th letter, "For fifty years every American soldier has gone to war confident that the United States had air superiority. Canceling the F-22 means we cannot guarantee air superiority in future conflict."

The House bill also provides an overall increase for defense programs of more than \$5 billion above the President's request. This increase would drain critical resources from other programs. The Administration believes that the President's budget request correctly addresses our most important FY 2000 military needs and that additional funding is not required. These increases, coupled with funds reallocated from the F-22 request, have been applied to programs that are of lower priority -- none of the programs receiving additional, unrequested funding is as important as fully funding the F-22.

The Administration strongly urges the conferees to sustain the balance between defense modernization and readiness by eliminating funding for lower priority programs, while restoring full funding for the F-22. The Administration strongly opposes a Defense appropriations bill that does not address these concerns.

We look forward to working with the conferees to address our mutual concerns. The enclosure provides a more detailed review of particular Administration concerns.

Sincerely,

Jacob J. Lew
Director

Identical Letter Sent to The Honorable C. W. Bill Young,
The Honorable David R. Obey, The Honorable Jerry Lewis,
The Honorable John P. Murtha, The Honorable Ted Stevens,

The Honorable Robert C. Byrd, and The Honorable Daniel K. Inouye

The Honorable David R. Obey
Committee on Appropriations
U.S. House of Representatives
Washington, D.C. 20515

Dear Representative Obey:

The Honorable Jerry Lewis
Chairman
Subcommittee on National
Security
Committee on Appropriations
U.S. House of Representatives
Washington, D.C. 20515

Dear Mr. Chairman:

The Honorable John P. Murtha
Subcommittee on National
Security
Committee on Appropriations
U.S. House of Representatives
Washington, D.C. 20515

Dear Representative Murtha:

The Honorable Ted Stevens
Chairman
Committee on Appropriations
United States Senate
Washington, D.C. 20510

Dear Mr. Chairman:

The Honorable Robert C. Byrd
Committee on Appropriations
United States Senate
Washington, D.C. 20510

Dear Senator Byrd:

The Honorable Daniel K. Inouye
Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, D.C. 20510

Dear Senator Inouye:

communication barriers, improve management of development programs, and address key warfighter challenges. They are a key source of innovative products for use by military forces. Full funding of the request will pay back handsomely in the long run, as small investments in these demonstrations will allow large savings and flexibility in system design, development and use.

Network Technologies. The Senate cut funding to DoD's Extensible Information Systems/Deeply Networked Systems and the Next Generation Internet (NGI) by \$25 million and \$9 million respectively. Failure to provide the requested funding would result in delayed progress and lost leadership for DoD in these areas.

Other Issues

Global AIDS. On July 19, the Administration proposed a \$100 million, cross-agency initiative to address the global AIDS epidemic. This prevention-focused effort would leverage the collective strengths of the Agency for International Development, the Department of Health and Human Services, and the Department of Defense in containing the worldwide spread of HIV/AIDS. The proposal, which is fully offset, includes an additional \$55 million for USAID, \$35 million for HHS, and \$10 million for DoD to provide prevention efforts for host country citizens and military personnel, home and community-based basic medical care and support services to infected persons, and basic nutrition assistance and related programs for children orphaned by the disease.

This bill does not include \$10 million for the DoD portion of this program which will be used to support prevention efforts for host country military personnel. We strongly urge you to fully fund the President's Global AIDS Initiative.

Counterdrug Forward Operating Locations. The Administration appreciates the House's full funding of the \$43 million request for counterdrug Forward Operating Locations. This request represents a carefully considered and urgently needed program to ensure continued detection and monitoring of narco-traffickers before illegal drugs reach the U.S. These locations are crucial to our ability to respond to the current situation in Colombia and to support the great strides that have been made recently in Peru. The Administration urges the conferees to provide full funding for Defense's counterdrug account.

Land Withdrawal Renewal. Title IX of the Senate Appropriations bill provides authority to renew military use of federal land in Alaska and New Mexico. In July, the Departments of Defense and Interior submitted to the Defense authorizing committees an Administration proposal for land withdrawal at these ranges and at three others. This proposal balances critical military training with environmental protection. The Administration objects to the management structure proposed and to the length of withdrawal provided in the Senate Appropriations bill and urges inclusion of the

Administration proposal instead.

Objectionable General Provisions

The Administration objects to section 8074 of the House bill and section 8073 of the Senate bill. Both of these sections would prohibit the use of funds to transfer defense articles or services to another nation or to an organization in connection with international peacekeeping or humanitarian operations, unless the President gives 15 days advance notice to the congressional defense and foreign relations committees. The Administration strongly opposes any provision that could be read to require prior Congressional authorization of actions taken by the President pursuant to his authority under the Constitution. In some cases, the President might have to meet exigencies that would not permit a delay of 15 days -- for example, to provide weapons to troops supporting United States forces engaged in hostilities. Because the provision, if read to forbid such action, would intrude on the President's authority as Commander-in-Chief, the Administration would construe it as permitting such expenditure, with notification occurring as soon as possible thereafter.

The Administration objects to section 8005 of the House-passed bill, which would prohibit most reprogramming of Procurement and RDT&E funds without prior congressional approval. The resulting delay in effecting smaller reprogrammings would seriously undermine the Secretary of Defense's management prerogatives and his ability to address unavoidable changes in military requirements. In addition, the provision could be interpreted to contradict the Supreme Court Ruling in INS vs. CHADHA.

The Administration objects to section 8008 of the House-passed bill, which prohibits new large multiyear procurement contracts. This prohibition would prevent DoD from achieving about \$1.6 billion in multiyear savings from just FY 2000 contracts, which defeats the purpose underlying the House's rationale for including this provision.

Last May's FY 1999 supplemental appropriations act provided required funding for this year's Kosovo operations as well as substantial funds to meet key FY 2000 requirements. To reflect this latter action, the Senate's FY 2000 DoD appropriations bill includes a \$3.1 billion general reduction. However, this reduction exceeds the supplemental funding that will actually be available for FY 2000 requirements and therefore would necessitate readiness-damaging funding reductions, with some taken as across-the-board cuts in accounts where little or no supplemental funding was added.

15/09/99 11:47:16

Draft for Presentation at the

**FOURTH SCUSA INTER-UNIVERSITY COLLOQUIUM
UEA NORWICH 5-8th SEPTEMBER**

**HIV/AIDS in Africa: Implications for “development” and
major policy implications**

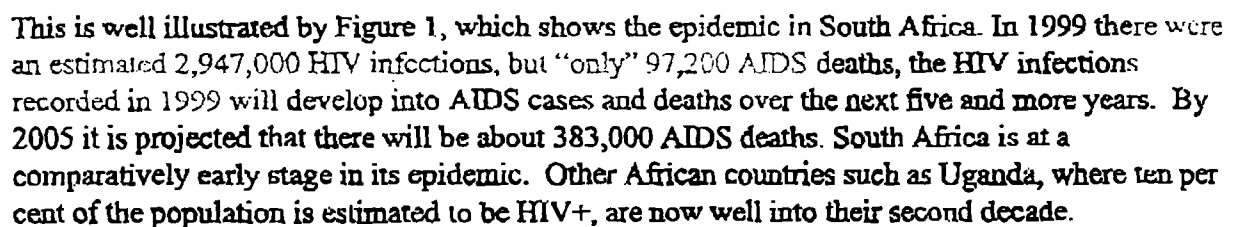
by

Tony Barnett and Alan Whiteside¹

¹ Tony Barnett is Professor of Development Studies, University of East Anglia, UK, Alan Whiteside is Associate Professor and Director of the HIV/AIDS and Health Economics Research Division, University of Natal, Durban, South Africa

Africa is in the throes of the largest epidemic of HIV/AIDS in the world. This epidemic will have far reaching consequences and it should be in the forefront of any discussion of development policy. Indeed there is increasing evidence to suggest that the impact of AIDS, and its associated increase in morbidity and mortality of young adults, is reversing development gains. AIDS calls into question the style and goals of development as pursued by the major donor agencies, including governments, multi-lateral agencies and NGOs.

Because the virus is slow acting with an incubation period of many years, an HIV/AIDS epidemic is a long, slow event. By the time that even a few people with AIDS are seen by clinical services, many more exist whose condition has not been diagnosed or observed and there are even more who are well, but infected with the virus. In short, a major problem is that once significant numbers of people begin to fall ill and die the HIV epidemic will already be far advanced.



C:\Data\MRI\AI APPENDICES\07-1-2016-

and serious for development. For example the measures used by the UNDP, the Human Development Index and the Human Poverty Index reflect countries being hard hit by the disease.

Essential History of the HIV/AIDS Epidemic in Africa.

HIV/AIDS in Africa was first recorded in Uganda in 1982. (Human-immunodeficiency virus and AIDS in Uganda, Mugerwa-RD; Marum-LH; Serwadda-D, *East-Afr-Med-J.* 1996 Jan; 73(1): 20-6). By the end of the 1980's it was apparent that few parts of the continent had escaped the epidemic and in some areas the levels of infection were very high and rising, especially when compared to the experience in the developed world. Here the epidemic was initially seen among the homo-sexual population and then among marginal groups such as intravenous drug users, the large scale heterosexual epidemic feared when HIV first appeared did not materialise.

In Africa AIDS is mainly heterosexually transmitted. There are in addition substantial numbers of infections from mother to child. In the early period it was an urban disease found among the wealthier sections of the population. It spread along trucking routes (Risk factors associated with HIV infection among long distance truck drivers in Kenya. Mbugua-G; Hearst-N; Lindan-C; Waiyaki-PG; Mutura-CW; Oogo-SA; Muthami-LN *Int-Conf-AIDS.* 1992 Jul 19-24; 8(2): D448 (abstract no. PoD 5367); Seroprevalence of HIV-2 infection among long distance truck drivers in Kenya. Oogo-SA; Mbugua-GG; Mutura-CW; Songok-EM; Norman-H; Waiyaki-PG, *Int-Conf-AIDS.* 1992 Jul 19-24; 8(2): C362 (abstract no. PoC 4718)) and from its earliest manifestations, its transmission was inevitably gendered. (Sex, rights and roles. Woelk-G; Kerkhoven-R; Todd-C; Bassett-M; Chingono-A, *Int-Conf-AIDS.* 1998; 12: 217 (abstract no. 14175) Migrancy, masculine identities and AIDS: the psychosocial context of HIV transmission on the South African gold mines. Campbell-C, *Soc-Sci-Med.* 1997 Jul; 45(2): 273-81; Gender dynamics and the challenges for HIV prevention. Mbizvo-MT *Cent-Afr-J-Med.* 1996 Dec; 42(12): 351-4; Sexual behaviour in developing countries: implications for HIV control.; Carael-M; Cleland-J, *Int-Conf-AIDS.* 1996 Jul 7-12; 11(1): 385 (abstract no. Tu.D.2706); Sexual behaviour in developing countries: implications for HIV control. Carael-M; Cleland-J; Deheneffo-JC; Ferry-B; Ingham-R; *AIDS.* 1995 Oct; 9(10): 1171-5; An essay: 'AIDS and the social body'. Scheper-Hughes-N, *Soc-Sci-Med.* 1994 Oct; 39(7): 991-1003; Women and AIDS in Africa: barriers to HIV prevention and control. Kabeya-CM; Williams-EE; Luo-N; Isaac-H; Anyango-S; Meilo-H; Bamba-B; Ndele-P; Byayuka-E; Cohen-T; et-al: *Int-Conf-AIDS.* 1993 Jun 6-11; 9(2): 930 (abstract no. PO-D30-4275)). Some of the conditions for this spread were associated with rapid population movements, migrant labour, civil unrest, illicit trade of one kind or another. This has been described in detail for Uganda by Barnett and Blaikie (1990, 1992, 1994)

From the first, an epidemic which was to do with sex, was inevitably fatal and reverberated with many cultural taboos was bound to be hard to deal with. Early efforts by medical scientists to trace the origins of the virus were affected by some particularly ignorant hypotheses. The probable origins of the disease was a species cross over from simian forms of the virus to human populations about 150 years ago. (Evolutionary inferences of novel simian T lymphotropic virus type 1 from wild-caught chacma (*Papio ursinus*) and olive baboons (*Papio anubis*). Mahieux-R; Pecon-Slattery-J; Chen-GM; Gessain-A: *Virology.* 1998 Nov 10; 251(1): 71-84; Serial human passage of SIV and the origin of HIV-1 and HIV-2 in Africa: the role of unsterile injections in the period 1950 to 1970. Marx-P; Alcibes-P; Drucker-E., *Int-Conf-AIDS.* 1998; 12: 106 (abstract no. 13107))

Unfortunately this gave rise to a difficult discourse about race, sex and sexual behaviours which appealed to sections of the press and the public in Europe and North America. The result was a reaction from many Africans who saw this as just another attack on African humanity, and

devaluation and misunderstanding of African cultures. The response was varied but the important book by Chirimuuta and Chirimuuta (AIDS, Africa and Racism, 1987) was an attempt, albeit wrong, to put the record straight. There were other less academically sound responses, some of them deriving from associations with the ideas of Duesberg in the USA, which claimed variously that HIV/AIDS was a white conspiracy to wipe out Africans. This level of weirdness and particular representation is epitomised in Geissler's (shortened version at 288 pages (!) of his book AIDS: Origins, Spread and Healing, Bipawo Verlag, Koln, 1994 which is worth mentioning because of its influence on thinking among some African politicians as well as among some sections of the east and central African intelligensia).

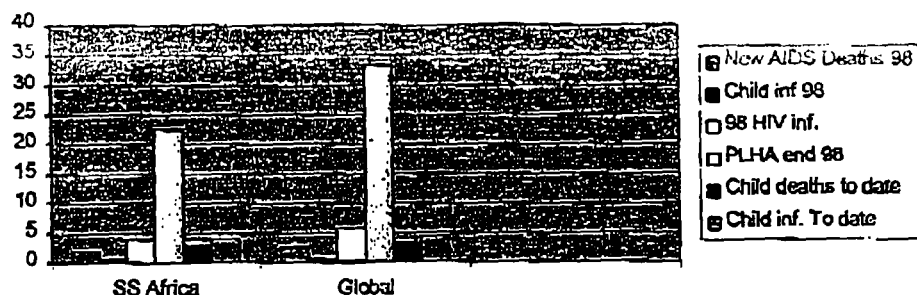
One of the consequences was a denial of the problem among African leadership. At the level of policy, many of these issues affected government responses and ensured that it was slower than might otherwise have been the case. There are two extreme illustrations. Uganda's president Yoweri Museveni took the issue seriously from about 1987 and Uganda was the first country in the world to undertake a national population based sero-survey in 1988. At the other end of the response spectrum, it is notable that in South Africa the possible extent of the epidemic has been clear to many (including one of the present authors) from the late 1980s but it is only in the last few years that the issue has received the attention that it deserved. Nelson Mandela was notably tardy in placing it high on the agenda. Currently there still denial in many parts of the region. In the past few years this has manifested itself as a disbelief in the figures, and enabled responses to be postponed. In part this is also due to an inability to know exactly what to do. Nonetheless the reality is that in many parts of Africa the HIV epidemic is extremely serious and it will, over the next decade be reflected in high levels of morbidity and mortality.

The Scale of Epidemic

In December 1998 there were an estimated 33.4 million people living with HIV/AIDS.² Of these an estimated 22.5 million were living in sub-Saharan Africa. As hetero-sexual intercourse is the main mode of transmission it has two significant implications:

- the majority of those infected are young adults, and the illness and deaths occur some five to eight years later.
- there are as many or more women living with HIV as there are men, indeed it is becoming apparent that in many age groups, more women are now infected than men. In part this is for physiological reasons, but it also reflects patterns of sexual practices and of gender relations, in particular the unequal social and economic position of men and women.

Figure 2 HIV and AIDS estimates, global and sub-Saharan Africa (in millions)



² UNAIDS and World Health Organisation, AIDS epidemic update: December 1998, Geneva 1998.

Figure 2 shows the HIV and AIDS estimates globally and in sub-Saharan Africa and makes it clear that at the moment sub-Saharan Africa is bearing the burden of the disease. (source UNAIDS, AIDS Epidemic Update December 1998).

The epi-centre of the epidemic is Southern Africa, as is shown on Table 1, which is experiencing the worst HIV epidemic in the world. HIV prevalence has risen to levels that seemed impossible a few years ago. Even more worrying, the spread is far more uniform between rural and urban areas than was the case in East African countries, which previously had the highest rates of infection. A review of the data from the region shows the gravity of the situation.

It is estimated that 12 per cent of the adult population of SADC countries are infected, and although there is great variation, (from 0.08 in Mauritius to 25.84 in Zimbabwe), and eight of the 14 countries have adult prevalence above 10 per cent. SADC is home to one third of the global population of people living with HIV. The 1998 surveys of pregnant women showed that in South Africa an estimated 22.8 per cent were infected, in Swaziland 31.6, and in Botswana 38.8. The reasons for this are not clear, but may be due to the high levels of migrancy, the good communication networks and the political instability that had its roots in the apartheid system.

Table 1 HIV Prevalence, Infections, Orphans in SADC

Country	Est. adult prevalence	No. of adults & children living with HIV/AIDS	Estimated number of orphans
Angola	2.12	110 000	16 000
Botswana	25.10	190 000	25 000
D R Congo	4.35	950 000	310 000
Lesotho	8.35	85 000	8 500
Malawi	14.92	710 000	270 000
Mauritius	0.08	No data	No data
Mozambique	14.17	1 200 000	150 000
Namibia	19.94	150 000	7 300
Seychelles	-	-	-
South Africa	12.91	2 900 000	180 000
Swaziland	18.50	84 000	7 200
Tanzania	9.42	1 400 000	520 000
Zambia	19.07	770 000	360 000
Zimbabwe	25.84	1 500 000	360 000
Total/average	Av. 12	10 805 000	2 214 000

Source: Compiled by authors from UNAIDS epidemiological comments sheets.

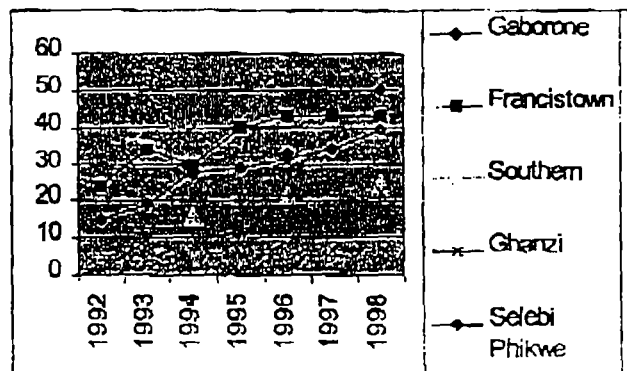
Other areas of the continent are not immune to the epidemic. In Eastern and Central Africa rates vary greatly, while in West Africa they are generally lower. The reasons for this are not fully understood, and are currently being researched. It is thought that factors such as patterns of sexual networking, levels of condom use and treatment of STDs may play an important role in the differences. It may also be simply a matter of timing and the fact that there are not data from many countries. Nigeria provides a good example of this. Until recently the epidemic there was assumed (by the Nigerians) to be small and under control. Current evidence suggests that it is large and exploding.

One of the key questions is what levels will the epidemic reach, and when will it stop. There is evidence to suggest that prevalence and incidence has peaked and is declining in urban Uganda where there is some suggestion that the incidence rate is now declining (~~ref to be supplied~~), although it will be a few more years before we can be sure. This is the result of the natural progression of an epidemic plus the success of some public health education measures; and the inevitable caution which attends sexual relations in a country where seroprevalence rates in the adult population reached 33 per cent, and where few people have not lost friends, relatives and work mates to the disease.

However, we should not be complacent about these claimed declines in incidence rates because a "national" curve is made up of numerous sub-national epidemics and the rural rates are still increasing. HIV can only be assumed to be under control when all curves are showing clear declines rather than continuing to increase or merely reaching a plateau (at which point the numbers dying are merely being replaced by new people). In particular, we should note that while incidence may be falling in urban areas in an advanced epidemic such as that in Uganda, rural incidence may still continue to rise for some years to come and the trend is not clear (7-year trends in adult HIV-1 prevalence, incidence and mortality in a rural Ugandan population. Kamali-A; Carpenter-LM; Ruberantwari-A; Ojwiya-A; Whitworth-JA, Int-Conf-AIDS. 1998; 12: 106 (abstract no. 13106)). We should also be clear that the plateauing of an epidemic does not mean that it is over, only that the numbers dying are being replaced at a steady rate by new infections and illness rather than at an increasing rate.

In most other African countries the data suggest that HIV prevalence continues to rise though in some urban settings it may be peaking. This can be seen in the Figure 3 for various sites in Botswana shown below.

Figure 3 HIV Prevalence in Selected Locations in Botswana (ANC attenders)



The Consequences of HIV/AIDS

Overall, the epidemic continues to present profound challenges to African politicians and administrators who are now rarely personally unaffected by its presence in relation to their families, lineages, friends and work-mates. This does not mean that they are any more prepared to confront its implications. There is still widespread denial.

A disease which affects "prime age" adults has profound social, economic and cultural consequences. Our research experience plus that of working with many hundreds of senior and middle level policy makers from Africa over the past twelve years indicates that while there are

some very important specific issues to be addressed in particular regions and areas, there are certain general features of the epidemic which impact upon the policy process.

First what do we know of impact? According to the United Nations, "AIDS is the "worst infectious disease catastrophe since the bubonic plague. Deaths due to AIDS in the region will soon surpass the 20 million people in Europe who died in the plague of 1347 and the more than 20 million people world wide who died in the influenza epidemic of 1917. Over the next decade, AIDS will kill more people in sub-Saharan Africa than the total number of casualties lost in all wars of the 20th century combined."

- Sub-Saharan Africa has one-tenth of the global population, but more than 80% of global AIDS deaths.
- In the past decade, 12 million people in sub-Saharan Africa have died of AIDS – one-quarter children.
- Each day AIDS claims another 5,500 men, women and children.
- In 1998, AIDS was the largest killer accounting for 1.8 million deaths in sub-Saharan Africa, nearly double the 1 million deaths from malaria and eight times the 209,000 deaths from tuberculosis.
- The situation will get worse, by 2005, the daily death toll will reach 13,000 with, nearly 5 million AIDS deaths in that year alone.

Of great concern is that the above figures reflect deaths not illness, yet AIDS is a particularly debilitating disease. People experience periods of illness that increase in frequency, duration and severity before they die. The loss of all forms of labour due to illness is rather harder to count.

This paper is on the consequences of AIDS and its implications for development and policy. All the consequences arise because HIV infection means many millions of Africans will develop AIDS, fall ill and die. This has an impact on the major demographic processes of mortality and fertility.

AIDS has been identified as the major cause of death in adults aged 15-44 years in Abidjan and in adults aged 15-59 years in Tanzania.^{3,4} AIDS is now the single most important cause of death in Africa, and given the age of those dying it is also, a major cause of orphaning. The World Health Organisation (WHO) estimated that, in Africa, as many as 10 million children have been orphaned since the beginning of the epidemic.⁵ A study in rural Tanzania found that 9 per cent of children were orphans and 14 per cent of households had at least one orphan.⁶ In Masaka a rural part of Uganda approximately 10 per cent of children were orphans.⁷

A further major demographic impact of AIDS is on life expectancy, which has fallen dramatically. This will be discussed later.

³ Adetunji J A. "Assessing the mortality impact of HIV/AIDS relative to other causes of adult deaths in sub-Saharan Africa". Socio-Demographic Impact of AIDS in Africa Conference. Durban, February 1997.

⁴ Boerma J T, Ngulula J, Isingo R, et al. "Levels and causes of adult mortality in rural Tanzania with special reference to HIV/AIDS". Socio-Demographic Impact of AIDS in Africa Conference. Durban, February 1997.

⁵ WHO. "The current global situation of the HIV/AIDS epidemic". Global Programme on AIDS. Memo 3. Geneva: World Health Organisation, 1996.

⁶ Mark U. Ng'weshemi J Z L, Isingo R, Kumogola Y, Boerma J Y. "Orphanhood, child fostering and the AIDS epidemic in rural Tanzania". Socio-Demographic Impact of AIDS in Africa Conference. Durban, February 1997.

⁷ Kamali A, Whitworth J A G, Ruberantwari A, Carpenter L. M. "Impact of the HIV-1 epidemic in orphan mortality in a rural Uganda population cohort". Socio-Demographic Impact of AIDS in Africa Conference. Durban, February 1997.

Economic Impacts.

The economic effect of AIDS will not be uniform across countries or even within societies. The impact will be felt at various levels and to varying degrees. What, then, is known of the economic effects? There is actually surprisingly little evidence.

Households

At the household level, AIDS cases may be disastrous. The infected individual will require medical care and possibly special foods, thus increasing demands on household resources. At the same time, if the person is an adult, the illness and death will reduce the household production capacity, resulting in a decline in household income. Thus, households are caught in a double-bind of needing more resources at the very time when these may be reduced. There is only one recent detailed study of the impact of AIDS on households in Anglophone Africa - from the Kagera region of Tanzania. The first results of this study have been reported at various conferences but are not yet available in a comprehensive published form. Households experiencing an adult death respond by voluntary adjustments in household size and reducing their supply of labour to farming, wage employment and non-farm self-employment in the first three months after the death. In addition there is a decline in per capita growth rates of both income and consumption; medical treatment and funeral costs pose a major financial burden; and female children may be taken out of school.⁸ Research across the Ugandan border in the Rakai district found that adult mortality leads to a decline in household economic status.

A source of concern is there is no published information on the effects of AIDS in urban and peri-urban areas in Africa. Growing numbers of people make their homes here (in 1995 it was estimated that 37 per cent of Africans lived in urban areas and that this would rise to 41 per cent by 2000).

Firms and Enterprises and Institutions

The next level at which impact might be expected is on firms or production units. AIDS will affect workplaces because of its impact on: (1) productivity; (2) costs; and (3) the national economic environment.

Key questions regarding the impact of AIDS on productivity relate to who, in terms of skills and productivity, in the private sector are affected and the nature of the labour market in the country and the sector. If, for example, there is a large pool of unemployed or under-employed people and the cost of replacing labour is low, then AIDS may have little impact. If, on the other hand, skilled or scarce labour are affected then impact may increase. Research in Zambia found that the mortality rate among formal sector employees rose from 0.24 per cent in 1987 to 2.1 per cent in 1993.⁹ In Kenya, a survey of five companies found AIDS was costing US\$45 per employee annually (3 per cent of company profits), and it could rise as high as US\$120 per employee (8 per cent of profits) by 2005.¹⁰

The effect of AIDS on the economic environment is harder to assess. The private sector may be able to adapt to increased morbidity and mortality in the workforce. Government and many of the service

⁸ These results have been presented at various conferences. For a listing of ?, see Whiteside Alan and Stover John op.cit.

⁹ Baggeley R, Chilangwa D, Godfrey-Faussett P, Porter J. "Impact of AIDS on Zambian business". VII International Conference on AIDS in Africa/VIII African Conference on Sexually Transmitted Diseases, Marrakech. December 1993 (abstract W R T 0031).

¹⁰ Forsyth S, Rau B (eds). "AIDS in Kenya: Socio-Economic Impact and Policy Implications". Arlington: Family Health International/AIDSCAP, 1996.

Macroeconomic Impact

AIDS and Human Development

- The period between HIV infection and AIDS illness and death means that, although HIV prevalence levels may be high, the AIDS epidemic will not be visible.
- AIDS is a long wave event that will take many years to work through the society in all its ramifications.
- AIDS may not be highly visible because cases usually occur throughout the population (and geographic area) rather in single dramatic cluster (although in some rural African communities there has been a clustering of cases).
- In societies where AIDS carries stigma then cases may be even less visible as people conceal the diagnosis. An extreme case was the murder of a self-declared HIV positive person in South Africa following a World AIDS Day meeting, for "bringing disgrace on the community".
- It is not clear how impact can be measured, and how AIDS impact can be disassociated from other national and international events.
- It is particularly problematic to measure the non-economic impact of the epidemic, its effects on social capital formation and on socially reproductive labour activities.

¹⁴ Forgy L. Mwanza A. "The Economic Impact of AIDS in Zambia". Lusaka: Ministry of Health, 1994.

There is, however one area where the impact of AIDS has been significant and for which there are figures, this is life expectancy. Perhaps the most authoritative source is the annual Human Development Report produced by the UNDP.

The Unmeasured Impact

It is the belief of the authors of this paper that AIDS will have a very serious impact, it will be long term, unexpected, and in many cases, difficult to measure.

Social Capital

We particularly believe it has the potential to destroy the very fabric of society. For all the data alluded to or outlined in the preceding sections, the real impact of the epidemic does not lie here alone. Rather it lies at the level of social capital and socially reproductive labour. These are defined as follows:

- Social Capital - after Putnam (R Putnam, Making Democracy Work: civic traditions in modern Italy, 1993) but not uncritically so, recognising that (a) the concept of social capital has a particular ideological role in social science (b) it can have a negative side in relation to (c) the issue of its cultural content. These reservations having been expressed, the concept is useful and means
 - "the stored investments of trust and understanding which are embodied in many aspects of social life. Social capital is in many respects the medium which other aspects of social and economic life require if they are to thrive. Premature loss of this kind of social capital without its replacement is a major loss to society. At a time when so much attention is paid to the importance of "civil society", loss of social capital threatens the existence of civil society."
- Socially reproductive labour refers to:
 - "the work which goes into the production of social capital. One type of socially reproductive labour with which we are all familiar is the care and rearing of children. But there are many other types of socially reproductive labour, the work of a woman in the "informal sector" is close to "economic activity" as measured by economists, while the work of a ritual specialist is difficult to conceive in economic terms. Care of orphans is most certainly socially reproductive labour, not solely in terms of their physical care but also their emotional and social development"

These are areas where losses are not easily measured by the instruments of economics or most other social sciences. In other words, the impact of an epidemic such as this is hard to see and seeing it depends on the one hand having appropriate instruments and on the other on considering that these impacts are significant for policy purposes and understanding why and how.

Of particular concern is the level of orphaning. Africa's population is young and changes in population structure where adults are lost will result in large numbers of orphans and the children in their adoptive families growing up with less adult attention than might otherwise have been the case or even with very little adult attention, as in the case of increasing numbers of street children and the small (about 5 per cent) but significant number of "child-headed" households in Tanzania, Uganda and no doubt other heavily affected areas. This will no doubt represent a major and broader impact on "social capital" in the form of lack of social skills, knowledge, unclear expectations, as well as on detectable and quantifiable declines in levels of formal education. There can be little

doubt that with the kind of youth militarisation (ref Richards to be provided) which has been developing in many parts of the continent (West Africa: Sierra Leone, Liberia; Central Africa: Congo, Mozambique, Angola; The Horn: Somalia; East Africa: parts of northern Uganda and Southern Sudan as well as Burundi and Rwanda), the additional effects of the epidemic on the future political form of the continent is likely to be very significant.

Rural Areas

The majority of Sub-Saharan Africa's population lives in rural areas, the average is 67.6 percent but the range is from 34 percent (Botswana) to 94 percent (Rwanda). There have been a limited number of studies of how the epidemic is affecting rural households and the results concur in the following particulars: there is an effect, it is serious and most of it is negative. It increases poverty, it is contributing to and in many cases causing marked changes in rural households and rural communities and their associated farming and livelihood systems (Barnett and Blaikie, 1990, 1992; Barnett, 1994; Barnett and Haslwimmer, 1995; Barnett et al, 1997; The cost of survivor assistance programs in northwestern Tanzania. Koda-G; Over-M Int-Conf-AIDS. 1993 Jun 6-11; 9(2): 926 (abstract no. PO-D29-4250); Economic impact of adult death from AIDS: overview of preliminary results from a random sample of households in Tanzania. Over-M; Mujinja-P; Ainsworth-M; Koda-G; Scmali-I; Lwihula-G; Gupta-I Int-Conf-AIDS. 1993 Jun 6-11; 9(2): 918 (abstract no. PO-D28-4200); Cultural aspects of adult fatal illness from AIDS and other causes: funeral costs, child fostering, inter-household transfers. Lwihula-G; Over-M, Int-Conf-AIDS. 1993 Jun 6-11; 9(1): 129 (abstract no. WS-D26-3); The impact of AIDS on health care utilization and expenditure by the fatally ill in northwest Tanzania. Mujinja-P; Over-M Int-Conf-AIDS. 1993 Jun 6-11; 9(1): 126 (abstract no. WS-D23-1); World Bank, 1997, chapter 4, Confronting AIDS; Menon, R., M. Wawer, J. Konde-Lule et al., World Bank and EU, 1998, Williams, A., Abantu Abaafa, unpublished PhD thesis, University of Queensland, December 1998; Rugalema, G., various, but notably Adult Mortality as Entitlement Failure: AIDS and the Crisis of Rural Livelihood in a Buhaya Village, Bukoba District, Tanzania, submitted but unexamined PhD thesis, Institute of Social Studies, Den Haag, Netherlands, 1999; Black-Michaud, 1997)). For the purposes of this conference, the following policy implications may be of particular interest:

1. In some regions of Africa it is already evident that subsistence farming systems are becoming less productive as a result of labour constraints associated with illness and death. This is likely to be pronounced in the drier areas. Given the numbers of people in Africa who depend upon smallholder farming as a part of their livelihood strategy, this is of some importance.
2. The celebrated "extended family" in rural areas (and possibly in urban areas but there is little or no evidence) is severely constrained in its ability to support the numbers of orphans being produced by the epidemic (Hunter and Williamson, 1998; Barnett and Blaikie, 1992). There is now evidence that the elderly are facing severe poverty in some communities in Uganda and doubtless elsewhere as a result of the deaths of their adult children (Williams, 1998). This is a face of rural poverty which has received little if any attention in relation to Africa.
3. There is some case material to suggest that commercial farming is affected. In the case of Uganda, coffee production has been abandoned in some communities as a response to labour shortages; in the case of Zambia, sugar production at Nakambala (which provides most if not all of the country's requirements) faces disruption resulting from illness and death among engineers maintaining the crushing factory. Another study by Jones (Clair Jones, The Microeconomic Impact of HIV/AIDS, 1996) indicates that the epidemic was having a detectable effect on commercial tea production even two years ago.

4. Black-Michaud (1997) notes some decline in market oriented rural production in some communities in Francophone west Africa.

AIDS and Development: Policy Implications

While there are debates about exactly what constitutes development¹⁵ there are certain "gold standards". Development should represent an improvement over the status quo. The majority of donor agencies try to set development goals, while the UNDP has indicators designed to measure levels of development. In this article we briefly look at how AIDS might development as measured by the UNDP and achievement of development goals set by some donors. The goals are those put forward by the DAC of the OECD, USAID and Britain. (These are chosen for illustrative purposes the comments would apply to the development goals of any donor, nor do we make comment on the goals).

Measurements of Development

The UNDP states "the purpose of development is to create an enabling environment for people to enjoy long, healthy and creative lives".¹⁶ In order to measure the uses the Human Development Index. This argues that the use of three indicators in the most basic human capabilities - leading a long life; being knowledgeable and enjoying a decent standard of living, can be combined to give the index of human development by country or disaggregated to regions. Variations of these basic indicators have been developed to produce a Gender Development Index, and Human Poverty Index.

The changes in life expectancy and ranking in the global human development table are shown for selected African countries in Table 2. The 1996 HDR used 1993 life expectancy figures, and AIDS was not considered. Since 1997 it has been taken into account, but not consistently. These figures have added significant loss of life expectancy provides one third of the weighting for the calculation of the Human Development Index (HDI). As the table show this loss of life expectancy has had a dramatic effect on the standing of various countries in the world ranking. The effect of AIDS on the HPI will be even greater.

Table 2 Life Expectancy and Place in the HDI ¹⁷								
	1996		1997		1998		1999	
	<i>Life Expect.</i>	<i>Rank</i>	<i>Life Expect.</i>	<i>Rank</i>	<i>Life Expect.</i>	<i>Rank</i>	<i>Life Expect.</i>	<i>Rank</i>
Botswana	65.2	71	52.3	97	51.7	97	47.4	122
South Africa	63.2	100	63.7	90	64.1	89	54.7	101
Swaziland	57.8	110	58.3	114	58.8	115	60.2	113

¹⁵ For some very recent debate see The European Journal of Development Research Volume 11, Number 1, June 1999 with four articles: Peter W Preston, Development Theory: Learning the Lessons and Moving On, p1-29, Ray Kiely, The Last Refuge of the Noble Savage? A Critical Assessment of Post-Development Theory, p30 - 55, Ronaldo Munck, Dependency and Imperialism in the New Times: A Latin American Perspective, p56-74, and Jan Nederveen Pieterse, Critical Holism and the Tao of Development, p75 - 100

¹⁶ United Nations Development Programme, Human Development Report 1999, Oxford University Press, New York, 1999

¹⁷ United Nations, Human Development Reports, Oxford University Press, New York, 1996, 1997, & 1998. Note that the life expectancies used for calculating the human development index are for 1993, 1994 & 1995 respectively.

Namibia	59.1	116	55.9	118	55.8	107	52.4	115
Zimbabwe	53.4	124	49	129	48.9	130	44.1	130
Kenya	55.5	128	53.6	134	53.8	137	52	136
Zambia	48.5	136	42.6	143	42.7	146	40.1	151
Malawi	45.5	157	41.1	161	41	161	39.3	159

Achieving New Goals

Recently the Development Assistance Committee of the OECD countries set out global development goals. It stated "We are proposing a global partnership effort through which we can achieve together the following ambitious but realisable goals:

Economic well-being:

- a reduction by one-half in the proportion of people living in extreme poverty by 2015.

Social development:

- universal primary education in all countries by 2015;
- demonstrated progress towards gender inequality and the empowerment of women by eliminating disparity in primary and secondary education by 2005;
- a reduction by two-thirds in the mortality rates for infants and children under age 5 and a reduction by three-fourths in maternal mortality, all by 2015;
- access through the primary health-care system to reproductive health services for all individuals of appropriate ages as soon as possible and no later than the year 2015.

Environmental sustainability and regeneration:

- the current implementation of national strategies for sustainable development in all countries by 2005, so as to ensure that the current trends in the loss of environmental resources are effectively reversed at both global and national levels by 2015.¹⁸

This view has been enormously important and has resonance in almost all donor policies, including that of the World Bank.¹⁹

The affect of AIDS on this? The goal of reducing infant and child mortality becomes unachievable, indeed the increases already seen in infant and child mortality are set to get very much worse. It is also suggested by our research the poverty will become very much worse in both absolute and relative terms in societies with HIV epidemics.

The DfID goals are (as is usual with the British) rather more woolly. The White Paper on Development sets out the goals 'to achieve the sustainable development of this planet' in the introduction: "It is first, and most importantly, about the single greatest challenge which the world faces – eliminating poverty. It is about ensuring that the poorest people in the world benefit as we move towards a new global society. It is about creating partnerships with developing countries and

¹⁸ The OECD, "New Strategies for the Challenges Ahead: A Changing Development Co-operation" <http://www.oecd.org/dac/htm/stc/intro.htm>

¹⁹ World Bank argues for a new strategy towards development and notes: "Together with the new strategy comes a broader agenda. Early development practice focused on growth of per capita income. But in reality, developing countries are concerned with broad improvements in the quality of life – higher incomes, yes, but also reduced poverty, advances in literacy and health, and environmentally sustainable development. The new agenda is reflected in the goals set forth by the donor community, in consultation with developing country partners..." (The OECD document referred to above). The World Bank, "Assessing Aid: What works, what doesn't, and why", A World Bank Policy Research Report, Oxford University Press, New York, 1998.

their peoples, on the basis of specific and achievable targets, to bring that about. We can succeed."²⁰

An assessment of how HIV/AIDS will impact on USAID can be illustrated by looking at the agencies mission and its goals. USAID's mission is to contribute to US national interests through the results it delivers by supporting the people of developing and transitional countries in their efforts to achieve enduring economic and social progress and to participate more fully in resolving the problems of their countries and the world.

USAID works through a strategic plan which sets out goals, objectives and performance measures for its major functions and operations. The major functions are defined in terms of sustainable development or actions that lead to a lasting increase in the capacity of society to improve the quality of life of its people. Figure 4 illustrates how for each goal AIDS has the potential to reduce the changes of achieving it and how appropriate interventions may mean its achievement helps in addressing HIV prevention and mitigation.

Figure 4. USAID Goals. AIDS as a Threat and Contributions to Prevention

<i>Goal</i>	<i>How AIDS Threatens the Goal</i>	<i>How Achievement Of The Goal Helps HIV Prevention</i>
Broad-based economic growth and agricultural development encouraged.	Public funds to care for sick and orphans. Loss of skilled human resources. Private sector impact. Business environment. Agriculture labour lost. Food and subsistence crops grown instead of cash crops.	Economic opportunities for poor and women decrease. Sale of sex. Equity reduces forced commercial sex. Increased tax base gives resources for prevention
Democracy and good governance strengthened.	Loss of political and civic leadership. Uniformed services particularly susceptible to HIV infection = instability. Government less efficient.	Building civil society shown to decrease HIV transmission. Destigmatisation of HIV and AIDS more likely in democratic, accountable society.
Human capacity built through education and training.	AIDS kills people after they have been trained and education. Farmers and educators fall ill and die. Girls and orphans less likely to be educated.	Education increase capacity to respond to HIV. Female education = female empowerment.
World population stabilised and human health protected.	Health deteriorates. Population structure and dependency ratios adversely affected. Future generations at greater risk. Health indicators show retreat. TB ????	Better health - decrease risk of HIV transmission. STD treatment crucial. Condom use for population control = AIDS control.
The world's environment protected for long-term sustainability.	Resources diverted from environment. Poverty increased - environmental degradation. Rural/urban migration?	Environmentally efficient fuel, e.g. electricity instead of coal saves female labour, others.
Lives saved, suffering associated with natural or man-made disasters reduced, and conditions	AIDS creates instability and insecurity leading to civil unrest and conflict.	End of conflict means demobilisation and return of combatants to barracks.

²⁰ Eliminating World Poverty: A Challenge for the 21st Century, White Paper on International Development Presented to Parliament by the Secretary of State for International Development by Command of Her Majesty November 1997.

Conclusion

There is real development impact of HIV/AIDS on Africa and it affects every area of policy - from state policy - what kind of state and what can it do? To NGO policies - what kind of personnel, what environments will they work in? What kind of "civil society" will exist in the context of collapsing states and lost generations? At an earlier period there was talk of "the hollowing out of the state" in Africa (ref?). This happened in a variety of ways and for a variety of reasons (internal pressures, corruption &c plus SAPS) and we have seen and are seeing the results. The HIV/AIDS epidemic is resulting and will result in the hollowing out not only of what states continue to exist; it will result in the hollowing out of society²¹.

The following has just been published by Dr Roland Msiska, a Zambian and a senior international and national policy maker in relation to HIV/AIDS. This is what he said on 27 July 1999:

"But one may ask what has the crisis of development in Africa got to do with HIV/AIDS in the next century? After having participated in the design strategies to contain the epidemic from the village level to the global level, I am convinced beyond unreasonable doubt that HIV/AIDS is a symptom, just like conflicts and deepening poverty of "development gone wrong" in Africa. Yes HIV/AIDS is a symptom of development gone wrong in Africa. What HIV has done so well in the last 10-15 years is exposed the inadequacy of our current approaches to development.

So our approach to HIV must be seen from two major perspectives - one is the short term perspective, which seems to be our predominant preoccupation, and in any case is okay since HIV/AIDS is an emergency that should be dealt with now---but let us not forget in this "emergency mode" we must also deal with the second perspective which is the long term issues of removing factors that make people more vulnerable in the long term.

HIV/AIDS is challenging our collective intellects, capacities to redefine development. So the priority for the continent is to ask the following questions: What is HIV/AIDS saying about our current development approach? What is HIV/AIDS saying about how our institutions are organized to provide services? What is HIV/AIDS saying about our current institutional and organizational capacity to allow for community participation? What is it that was done in the past in form of development policies that may be responsible for the rapid spread of HIV in Africa?....

HIV is saying to those of us who are interested in the development of the continent, that it cannot be business as usual. The old conventional, traditional approaches to development have failed to lift us out of the present crisis. If we cannot think of alternatives, let us at least dialogue---Is HIV a symptom of development gone wrong? If the answer is yes then we need to tackle the disease "development" as we deal with the symptom "HIV". We need to

²¹ It might also be worth noting here that this is not solely an African problem. There are strong elements of the linking of risk environments - particularly the examples of Ukrainian mercenaries in west Africa and the Ukrainian epidemic which then has implications for the health status of western Europe! This is a global problem.

learn from our colleagues in Latin America who are raising serious questions on development as part of the continued dialogue of redefining development."

Perhaps it is to that voice and those sentiments that participants in the SCUSA meeting need to address themselves when they consider issues of policy.

SUNDAY, DECEMBER 12, 1999

AIDS Sickening African Economies

Farms Are Idle, Jobs Unfilled As Disease Devours Work Force

By JON JETER
Washington Post Foreign Service

CHEGUTU, Zimbabwe—Planting season is just around the corner, and if this were any other year, Mark Magaya would be waiting anxiously for the first good spring rain to soften the coarse soil for his plow.

But things are different this year. Magaya sleeps most of the day. His legs tremble when he wanders more than a few yards from his tiny mud hut. AIDS has pillered his muscular physique and he depends on his wife to bathe him, clothe him, help him to his feet when visitors arrive. The tuberculosis that occupies his lungs makes every breath a chore.

There will be no harvest this year.

"I am too weak to farm," he said one recent afternoon while lying on the floor of his home. "Usually, I grow enough maize to feed my wife and baby girl, and then I sell the surplus. That gets us through the year. But this is the second year that I've been unable to farm, and I don't know how we will make it. My family survives on handouts from friends and family. My condition grows worse from worry and hunger."

This is Africa's dry season. As surely as drought, as swiftly as locusts, AIDS is devouring this continent's cash crops by idling the once able-bodied farmers who work the land.

Sub-Saharan Africa is home to two-thirds of the world's 33.4 million people living with AIDS, and the mostly agrarian economies here are doubly cursed. Nowhere are people more dependent on strong backs and sturdy legs for survival, yet no population on

AIDS Kills African People and Economies

Earth is as feeble.

AIDS, isolated largely to the urban poor and gay men in the Western world, has cut a much wider swath in Africa, coursing like a river along the continent's major trucking routes. Spread mostly through heterosexual contact, AIDS in the Third World is the curse of the young—men and women with children to raise and work to do.

"When the breadwinner gets sick, the whole family shuts down in a sense," said Timothy Stamps, Zimbabwe's health minister. "We're burying people faster than we can replace them, and there just aren't enough hands left to do the work. It's really disrupting how we do business as a nation."

AIDS in Africa has metastasized into a disease whose progression is no longer measured solely by the depletion of a patient's T-cells, but increasingly by every percentage point that is shaved from a nation's gross domestic product. Developing

countries are losing their best and brightest workers—farmers, schoolteachers, bricklayers and businessmen—just as governments are trying to fasten their fledgling economies to a global marketplace that doesn't wait for stragglers.

More than 5,000 people with AIDS die each day in Africa, and epidemiologists expect that figure to climb to almost 13,000 by 2005. By that time, health experts say, more people in sub-Saharan Africa will have died from AIDS than in both world wars combined or from the bubonic plague, which killed 20 million people in 14th-century Europe. Ten percent of the work force in southern Africa has been infected, and economists estimate that the shrinking labor pool—coupled with rising health and welfare costs, reduced spending power and lost investment—will slow the continent's rate of economic growth by as much as 1.4 percentage points each year for the next 20 years.

In Africa's most industrialized states, including South Africa, Zimbabwe and Kenya, the gross domestic product—an economist's best gauge of prosperity—could be 20 percent lower by 2005 than it otherwise would have been.

"HIV is now the single greatest threat to future economic development in Africa," said Callisto Madavo, the World Bank's vice president for Africa.

But it is not Africa's burden alone. AIDS is growing fastest in Asia, and many health experts believe that it may overtake Africa in the number of people infected with HIV, the virus that causes AIDS. That creates a vexing problem for investors in Europe and North America as their economies peak and they increasingly turn to the Third World for profits.

"What happens to the global market economy if there's no one left to do the work?" asked Peter Piot, executive director of the U.N.'s AIDS organization.

That is precisely the problem facing sub-Saharan Africa.

At Zambia's largest cement company, absenteeism has in-

creased 15-fold since 1992, while over the same period Uganda's railroad company has lost 15 percent of its work force annually. AIDS accounts for 60 percent of all the employee claims for death benefits filed with Southampton Assurance, Zimbabwe's largest insurance company.

"In most instances, these figures are roughly more than 10 times what we expect to see in the developed world," said Alan Whiteside, an economist at South Africa's University of Natal.

At Eskom, South Africa's electric utility, 11 percent of the workers are infected with HIV, said company chairman Reuel Khoza. Barclay's Bank of Zambia has lost more than a quarter of its senior managers to AIDS, and a government survey of Kenyan businesses revealed that costs associated with the disease have slashed profits by almost 4 percentage points a year since 1994. Surveys in Uganda indicate that 40 percent of its military force has HIV, while classrooms in Malawi stay empty because a third of all schoolteachers are infected.

"These are people who cannot be replaced quickly or easily," Piot said. "When they die, who will teach these children?"

Here in Zimbabwe, where nearly a quarter of the 12 million residents are infected, managers at the Vitafoam mattress and furniture factory cope with employee turnover by training three new hires for every job.

"We expect to lose two of them within a year's time," said Taanda Marongwe, the plant supervisor in the industrial center of Bulawayo, about 200 miles southwest of the capital, Harare. "This way, work doesn't just grind to a halt when an employee can no longer come to work. It is a difficult way to run a factory, but it's the best way under these circumstances."

But it's in arid, hardscrabble villages such as Chegutu where AIDS has done the most damage, leaving the sick to die, and their survivors often without food on the table.

Maize production by Zimba-

bwe's peasant farmers and on small commercial farms declined by 61 percent last year due to illness and death from AIDS, according to a survey by the Zimbabwe Farmers Union. Cotton, vegetable, groundnut and sunflower crops were cut nearly in half, and cattle farming declined by almost a third, according to the study. Overall, agricultural output dropped nearly 20 percent last year as a result of AIDS, said Stamps, the health minister.

Magaya, 37, had farmed his acre of land for nearly a decade before he fell ill last year. His wife earns a trickle of income by selling mud curios and shelves to their neighbors, but mostly the family relies on friends for what little food they have to eat.

"Mostly it's porridge," Magaya said. "Maybe vegetables and potatoes. Almost never any meat, though."

Business at the local nameless convenience store has declined dramatically in the past few years. "People just don't have the money to spend anymore," said the owner, Phillip Mowero.

School attendance has dropped as well. Parents are hard pressed to come up with school fees, and many children are kept at home to do the chores that would have ordinarily been done by a parent, said Samson Musinake, a project officer for a health clinic here.

Nicholas Soku, 69, would have retired years ago if not for the pestilence that has struck his family. With the help of his son, the widowed peasant farmer harvested just enough maize and cotton for his family of three to get by in years past.

But his 41-year-old son died of AIDS in June, leaving Soku to tend the crops and care for his ailing daughter, who has HIV.

"My son was unable to help me in the fields the last two years of his life, and last year, we harvested almost nothing," said Soku, rail-thin and shirtless, his face heavily creased by age and hard living.

Struggling to pitch a makeshift tent, he rose from the dust on a humid afternoon, wiped his

sweaty forehead and surveyed the landscape of angular, straw-topped mud huts that rise from the ground like giant buried pencils in feverish dreams.

"I do what I can now, but I am old, and most of my time is spent looking after my daughter. We eat with the handouts and odd jobs my neighbors hire me to do. But we are scrambling to survive."

When he fell ill last year, James Urayay, 35, sold his livestock and fertilizer, and watched his three acres of land go to waste. He is, he said, an unfussy man whose only concerns are his family and his ability to plumb cotton, tobacco and maize from the land.

"I don't have the energy to devote to either now," he said. "I am very weak."

He, his wife of 10 years and their four young children, none older than 8, struggle, living on the kindness of relatives. When he was unable to pay the electric bill earlier this year, the utility cut off his service, and his aging parents had to lend him the money to get the power restored.

"I have farmed all my life," he said while staring blankly into the fields he once worked from dawn to dusk. "It wasn't much, but it fed my children and gave us enough money to make it through the year. It pains me to see my kids and my wife eat sadza [grits] and vegetables every night for supper."

His wife, Tamary, said she has considered trying her hand in the field. "But it is not possible. All my time I spend attending to my husband and caring for my children. It is difficult to do anything else."

As she spoke, her husband sat on a wobbly plastic chair outside the family's hut, staring past the fields and toward the mountains that rumble across the sky like elephants from a child's dream.

He has lost more than 40 pounds, relatives say, and everyone fears that he does not have much more time. He mumbled, his words barely audible, seeming, almost, as if he were carrying on a conversation with himself.

"I'll miss the land," he said.



Mark Magaya, 37, lies outside his hut, too weak from AIDS and tuberculosis to farm. His family survives on handouts.

BY ROB COOPER FOR THE WASHINGTON POST

The demographic and economic impact of AIDS in Africa

Alan Whiteside and John Stover*

AIDS 1997, 11 (suppl B):S55-S61

Keywords: AIDS, demographic impact, economic impact, Africa

Introduction

Among the most vexing questions related to the HIV/AIDS epidemic are those concerning impact on demography, and on the social and economic functioning of societies. These issues are of critical importance if planners and policy-makers are to respond to the epidemic and avert its potentially adverse consequences. The apparent lack of action is, in part, because people are not aware of the magnitude of the problem, its potential consequences and ways in which they can respond.

The problems in predicting the implications of the AIDS epidemic

AIDS has demographic and economic consequences because it causes people to fall ill and die. The degree to which it impacts on a society will be determined by how many people are infected, their place in society in terms of skill and productivity, and for how long they are ill.

The major problem with understanding the implications of AIDS is that it is a new and unique disease. This means that there are no parallels to which we can refer. Because AIDS is so new, there is no country in the world where the epidemic has run its course, and it will be many decades before it does. 'Disasters do not happen, they unfold. This may be glaringly obvious in the case of 'slow-maturing' (slow-onset) disasters such as famine, the even slower AIDS pandemic, or ozone depletion, processes which unfold over a period of perhaps 30-80 years or more' [1]. It can be seen from a time-scale (Table 1) that it will take 51-75 years for the full (macro) impact of the epidemic to be felt. Of course, the micro-level impact, at the household, will be felt immediately by those households affected. Confounding predictions of impact are the coping mechanisms that evolve. It is hardly

surprising that households, firms and production units develop coping mechanisms; not to do so would be to cease to exist. By developing coping mechanisms, however, it makes it very much harder to predict impact.

Demographic consequences

The major demographic processes (mortality and fertility) are affected by AIDS. There are direct effects on mortality since AIDS causes the deaths of adults and children. The effects on fertility are indirect and less well understood. The accumulation of these direct and indirect effects causes changes in other demographic indicators, such as population growth rates, dependency rates and orphanhood.

Mortality

Adult mortality

The most direct demographic consequence of AIDS is an increase in mortality. Without effective treatment of HIV infection, half of all infected adults will die in about 10 years and indications are that most of the rest will eventually develop AIDS and die if they do not die from other causes first. The average time from infection to death may be as short as 5 years in some developing countries and as long as 10-12 years in the industrialized countries [2]. Recently, advances in drug therapy have raised the hope that HIV infection may be controlled and that the progression to AIDS and AIDS-related death may not be inevitable. In 1997, for the first time, both the United States and France have reported a decline in the number of AIDS deaths [3]. It is believed that this decline is attributable to the use of new drug therapies. However, the drugs are very expensive and difficult to administer. For most of the developing world, such treatment is not available and HIV infection leads inevitably to AIDS and death.

From the Economic Research Unit, University of Natal, Durban, South Africa and *The Futures Group International, Glastonbury, Connecticut, USA.

Requests for reprints to: Alan Whiteside, Associate Professor, Economic Research Unit, University of Natal, Durban 4041, South Africa.

Table 1. A time-scale for the epidemic.

Time (years)	Min.	Max.
Prevalence		
From first case to peak of HIV in urban areas	8	15
From urban HIV peak to national HIV peak	8	15
AIDS cases		
To peak in AIDS epidemic in urban areas	5	10
To peak in AIDS cases nationally	5	10
To impact on next generation	25	25
Total	51	75

Min., minimum; Max., maximum.

Since AIDS is primarily spread through sexual transmission, the peak ages of people becoming infected with HIV are 20–40 years and the peak ages of AIDS death are 5–10 years later. Thus, AIDS increases mortality in age groups that typically have the lowest mortality rates.

AIDS has been identified as the major cause of death in adults aged 15–44 years in Abidjan and in adults aged 15–59 years in Tanzania [4,5]. In a rural Ugandan cohort, with an adult HIV prevalence of about 14%, AIDS was responsible for approximately 40% of deaths to all adults [6]. Given similarly high HIV prevalence levels in many other countries in Africa, AIDS is certainly a major cause of death in adults on this continent.

The impact of AIDS on age-specific mortality rates for a typical high-prevalence country is shown in Fig. 1. The largest impact is in the youngest age group (0–5 years) and the years of highest sexual activity (15–39 years). The percentage increase in mortality rates in the 15–39 year age group is quite large. However, since these age groups typically have very low mortality rates, the increases in overall mortality, as measured by the crude death rate, are much smaller. Since AIDS deaths are concentrated in this age group, there are important consequences for the number of AIDS orphans and economic growth.

Infant and child mortality

A pregnant woman who is infected with HIV may pass that infection to her fetus during gestation or to the newborn child during delivery or through breast-feeding. About 13–45% of children born to infected mothers will be infected [7]. Since most of these children will develop AIDS and die within a few years of birth, the infant and child mortality will increase as a result of AIDS. The amount of the increase will vary by country but a simple example can illustrate the magnitudes. Studies in several African countries have found that for babies born to HIV-infected mothers the infant mortality rate is increased by 100–150 infant deaths per 1000 live births [8]. In a country with adult HIV prevalence at 10% and a non-AIDS infant mortality rate of 100, AIDS would cause the infant mortality rate to increase to 110–115 per 1000 live births, a 10–15% increase in infant mortality. The impact on the

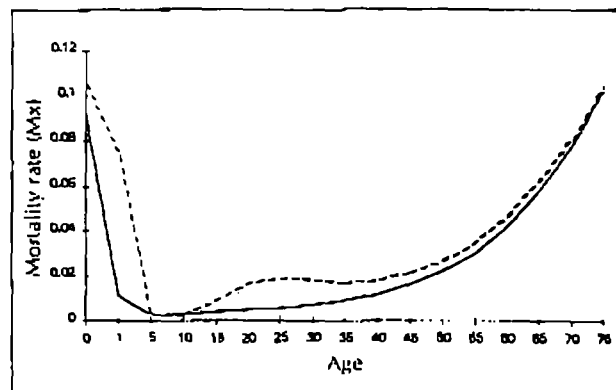


Fig. 1. Impact of AIDS on age-specific mortality rates. —, No AIDS; ---, AIDS.

mortality rate of those aged below 5 years will be more severe. In the example used above, there would be about a 20% increase in the mortality rate of those aged below 5 years. The actual effects could be larger if children who are orphaned when their mothers die of AIDS receive worse care than other children. The estimated current impact of AIDS on mortality rates of those aged below 5 years is shown for selected countries in sub-Saharan Africa (Fig. 2). It is difficult to measure child deaths due to AIDS since they are likely to be under-reported. Studies in Uganda have found that AIDS is a significant cause of child mortality but that malaria, measles and diarrhea are still more important [9].

Life expectancy

Life expectancy at birth is particularly sensitive to AIDS because deaths occurring to young adults and young children result in a large number of years of life lost. The United States Census Bureau has made projections of the impact of AIDS on future levels of life expectancy in 23 of the most affected countries [10–12]. It estimates that, for this group of countries, life expectancy in 2010 will be approximately 20% lower than it would be if there were no AIDS. In Botswana, one of the worst affected countries, life expectancy is projected to be just 33 years as opposed to the level of 66 years that would be expected if there were no AIDS epidemic.

Fertility

It is clear that number of births may be affected if many women die before reaching the end of their childbearing years. However, most births occur to women at young ages. The average age at the time of death from AIDS is usually around 30 years or higher for women. In Africa, only about one-third of lifetime births occur to women over the age of 30 years. Therefore, the effect of AIDS on the birth rate is not likely to be large if the total fertility rate remains constant. However, the total fertility rate might be affected. Some women may want to have as many children as possible while they can, in order to leave descendants behind. For some women, continuing to bear children may be important if they wish to remain married.

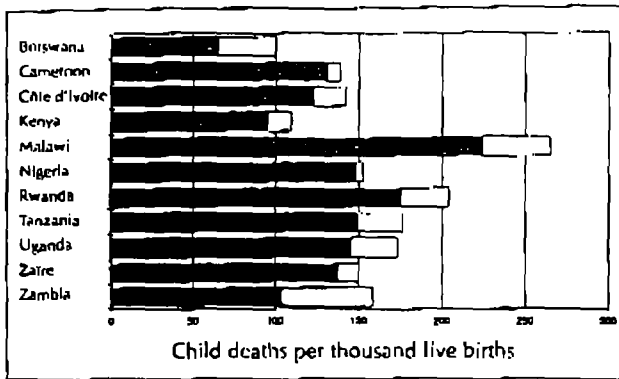


Fig. 2. Estimated current impact of AIDS on the mortality rate of those aged below 5 years in selected countries. □, Due to AIDS; ■, without AIDS.

Others may decide to stop childbearing upon learning that they are HIV-positive to avoid leaving orphans behind. Since most people in Africa do not know if they are infected or not, there is not likely to be a large effect on the desired fertility rate because of knowledge of HIV infection.

Age at marriage may also be affected and could, in turn, affect fertility rates. AIDS could lead to a lower age at marriage or first union if young women and their parents seek early marriage as a protection against pre-marital sex with a number of different partners. Conversely, AIDS could lead to higher age at first intercourse as the dangers of unprotected sex become known. Either change could affect fertility rates by altering the amount of time women are exposed to the possibility of pregnancy.

Gregson and colleagues [13,14] have examined the impact of HIV on fertility by examining potential changes in these factors. They found no clear evidence either way, but concluded that the most likely result is a slight reduction in fertility. A recent study in Tanzania found weak evidence that adult mortality because of AIDS leads to reduced fertility rates [15]. In Uganda, it was found that HIV-infected women had lower fertility rates than HIV-negative women. One study in the rural Rakai district found that age-specific fertility rates for HIV-infected women were 50% less than those for women who were not infected [16]. Another study among a rural population in Masaka [17] found that fertility rates were 20–30% less among HIV-infected women. Since most women did not know their serostatus, the reduced fertility rates were most likely because of biological rather than behavioral factors. In a country with a relatively high HIV prevalence rate of 10% among adults, a 50% reduction in fertility among HIV-infected women would translate into a 5% reduction in fertility due to HIV infection.

Population size and growth

There has been much speculation whether AIDS might lead to negative population growth in some countries

[18–22]. The conclusion from these studies is that AIDS would cause negative population growth in the African setting only if national adult HIV prevalence levels increase to 30–50% or fertility declines sharply. Prevalence levels this high have been reported in certain subnational regions and even for a few cities in Africa, but do not seem likely for entire countries. Therefore, AIDS is not likely to cause negative population growth in any country in Africa given the current levels of fertility. It is possible that the combination of very high levels of HIV prevalence and rapidly declining fertility, as in Zimbabwe, could reduce population growth to near zero. The United States Census Bureau predicts that, in the 23 countries with the most severe AIDS epidemics, the rate of natural increase in the population will decline from 2.4% per year in 1990 to 1.4% by 2015 [10]. About 60% of this decline will be as a result of AIDS and 40% as a result of changing fertility and non-AIDS mortality. For these 23 countries, AIDS will cause the population size to be 8% smaller in 2010 than it would have been without AIDS. Other projections show a somewhat smaller impact of AIDS because of a less pessimistic projection of future levels of HIV prevalence [23].

Dependency ratio

The dependency ratio is the number of dependents (usually children under the age of 15 years and adults over the age of 64 years) per 100 adults of productive age (15–64 years of age). It might seem that the dependency ratio should worsen as a result of AIDS because of the increased number of deaths in young adults. However, AIDS also leads to an increase in the number of child deaths. These two factors tend to approximately balance each other, with the result that the dependency ratio does not change dramatically in the presence of an AIDS epidemic [24]. The dependency situation is adversely affected in other ways, however; AIDS increases the number of widows and widowers [25] and, when parents die, children are often left in the care of grandparents or other members of the extended family or community.

Orphans

One of the worst consequences of AIDS is the fact that it creates a number of AIDS orphans, children whose parents die from AIDS. The World Health Organization (WHO) has estimated that, in Africa, as many as 10 million children have been orphaned since the beginning of the epidemic [26]. A study in rural Tanzania found that 9% of children were orphans and 14% of households had at least one orphan [27]. Results from Masaka in rural Uganda showed that approximately 10% of children were orphans [28]. [Various definitions of orphans are used. WHO estimates refer to children who lost their mother to AIDS (maternal orphans) while the Tanzanian and Ugandan studies defined an orphan as a child who had lost one or both parents. Most definitions include only children under the age of 15 or 18 years.] The consequences for the health and development of these children can be severe as

grandparents, extended families and communities try to find the means to cope with this growing problem.

The economic effect

The economic effect of AIDS will not be uniform across countries or even within societies. The impact will be felt at various levels and to varying degrees. These effects derive from the fact that the individuals who fall ill and die are all economic actors, i.e. producers or consumers (Fig. 3). The effect of an infection is felt first and most immediately by the person who falls ill and by their family. It then spreads like a ripple through the household, community, and then through the country as a whole.

AIDS also needs to be seen in the context of other diseases. In developing countries, infectious diseases contribute a major percentage of deaths (31%) and disability-adjusted life years lost (25%) as compared with less than 6% for both in the developed world. Murray and Lopez [29] have shown that by 2020 HIV/AIDS will account for approximately 13% of the infectious disease burden in sub-Saharan Africa and will be the second largest contributor to adult death in developing countries. However, looking at HIV/AIDS on a continental basis will hide regional variations which in turn reflect the current differences in the epidemic as well as projected future developments.

What, then, is known of the economic effects? There is actually surprisingly little evidence.

Households

At the household level, the effect of an AIDS case may be disastrous. The infected individual will require medical care and possibly special foods, thus increasing demands on household resources. At the same time, if the person is an adult, the illness and death will reduce the household production capacity and may result in a decline in household income. Thus, households are caught in a double-bind of needing more resources at the very time when they are likely to be reduced. Very little research has been performed on this. An early assessment suggested that in rural Uganda 'the access qualifications for producing some crops may become too high. Remittances from non-agricultural income opportunities may cease upon the death of a son in government or in trade. The household budget will suffer a sharp decline in cash and possible food crop inflow. Children may have to be taken out of school, and other purchased household items will simply become too expensive' [30].

There is only one recent detailed study of the impact of AIDS on households, from the Kagera region of Tanzania [31]. The first results of this study have been reported at various conferences but are not yet available in a comprehensive published form. Early results show that households experiencing an adult death respond by: (1)

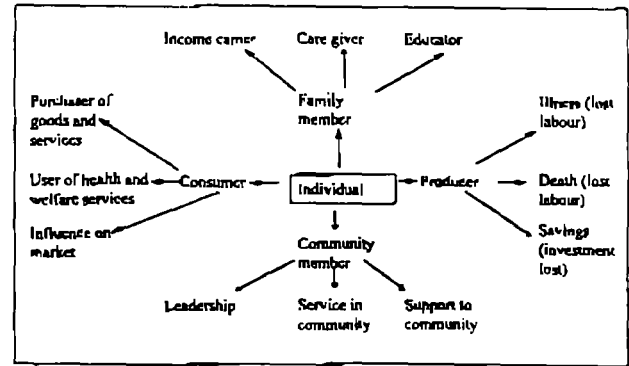


Fig. 3. The individual as an economic actor.

voluntary adjustments in household size [32]; (2) all household members reduce their supply of labor to farming, wage employment and non-farm self-employment in the first 3 months after the death [33]; there is a decline in per capita growth rates of both income and consumption [34]; medical treatment and funeral costs pose a major financial burden [35]; and female children are much more likely to be taken out of school [36].

Research across the Ugandan border in the Rakai district [37] found that adult mortality leads to a decline in household economic status. This was measured through the possession of durable goods such as bicycles or vehicles. The death of an HIV-positive adult was more likely to lead to the sale of such goods than the death of an HIV-negative adult [37], indicating HIV-affected households have far fewer resources, either before or after the infection. A great source of concern is that there is no published information from the urban and periurban areas, especially since growing numbers of people make their homes here (in 1995 it was estimated that 37% of Africans lived in urban areas and that this would rise to 41% by 2000) [38]. Furthermore, HIV prevalence is generally significantly higher in urban areas and urban residents may not have extended family support systems available nearby.

Firms and enterprises

The next level at which impact might be expected is on firms or production units. AIDS will affect workplaces because of its impact on: (1) productivity; (2) costs; and (3) the national economy.

Productivity will be affected if employees fall ill but remain on the payroll; initially they will take all available leave, including sick leave, and eventually they may take unpaid leave and come to work when ill in order to retain an income. Productivity will also be reduced when skilled or experienced staff fall ill or die. Costs will increase if the employer has to pay for additional benefits. The effect of AIDS on the national economy is harder to assess. There are indications that growth may slow and the level of service provision may decline. Of particular concern in the more developed African countries is the potential

effect on life insurance and pension funds. These are important sources of capital for both the private sector and government. It is not easy, however, to measure the impact of AIDS at this level either. An exhaustive study of the Makandi Tea and Coffee Estate Limited in Malawi found that 'the effects of HIV/AIDS on current levels of expenditure at Makandi are negligible. The major components of HIV/AIDS-related expenditure are the estimated attributable cost of employee medical service provision and the unexpected pension scheme commitments resulting from the higher death in service rate' [39].

Research in Zambia has shown that the mortality rate among formal sector employees rose from 0.24% in 1987 to 2.1% in 1993 [40]. This means that a company with 1000 employees might expect about 21 employees to die each year, and 19 of the deaths may be attributed to AIDS. However, a study of two agricultural estates and one cement works in Zambia found lower levels of mortality increase. The three firms saw mortality fluctuate from 0.88% in 1992-1993 to 0.72% in 1993-1994 and 0.78% in 1994-1995. Mortality attributable to AIDS rose from 0.48 to 0.54 to 0.56% over the 3 years (J. Smith, unpublished data, 1996). One reason may be that these enterprises were located in rural or periurban areas, where HIV prevalence rates are currently lower.

The World Bank studied the impact of AIDS on 992 African firms in five sub-Saharan countries. For AIDS to have an impact, the AIDS-related workforce attrition had to be large in proportion to total attrition, and these higher rates of attrition should adversely affect the costs and performance of firms [41]. The study found both effects to be minor at this stage. The results will have been confounded by the fact that the countries are in the early stages of the AIDS epidemic, as opposed to the HIV epidemic, and that in most countries as part of the new wave of economic reform firms have been downsizing. This process means that people who are ill or who know they are HIV-positive may opt for redundancy or early retirement and thus it takes longer for the true impact of the disease to be felt.

Key questions regarding the impact of AIDS on productivity relate to who, in terms of skills and productivity, in the private sector are affected and the nature of the labor market in the country and the sector. If, for example, there is a large pool of unemployed or underemployed people and the cost of replacing labor is low, then AIDS may have little impact. If, on the other hand, skilled or scarce labor are affected then impact may increase. Current evidence suggests that the impact is limited but it must be emphasized that the epidemic is still in the early stages.

The actual cost of AIDS cases to employers will vary greatly, depending on the conditions of employment, the

Table 2. Impact of AIDS on employee benefits.

	1995	2000	2005
Lump sum at death	1.5	3.7	6.0
Spouse's pension	4.0	7.5	10.0
Disability pension	1.5	2.3	3.0
Total	7.0	13.5	19.0

Costs are given as % of salary.

level of the staff, and the way in which they are treated. In Kenya, a survey of five companies found that AIDS was costing US\$45 per employee annually (3% of company profits), and that it could rise as high as US\$120 per employee (8% of profits) by 2005 [42]. A comparison of research in the private sector in Kenya, Zambia and Malawi shows that absenteeism accounts for between 25-54% of costs; to this must be added lower productivity, and loss of experienced staff [43].

Actual expenditure, where it does occur, will be in employee benefits. For any company this will depend on exactly what is provided. Typically, in South Africa, benefits will include group life insurance, pensions and medical aid. A rather sobering benefits calculation performed by Metropolitan Life is shown in Table 2 (P. Doyle, personal communication, 1996). Benefits will be reduced as payroll costs cannot rise to cover the increase.

The effect of HIV/AIDS on health-care costs will depend on what is provided. Most medical aid schemes have strict limits on what they will pay, and may respond to increased claims by raising contributions. However, it is certain these costs will rise. Some employers, particularly the larger ones, provide on-site medical facilities ranging from a nursing sister to fully equipped referral hospitals. It is here that costs are certain to rise as the epidemic gains momentum. The INDENI petroleum refinery in Zambia paid out US\$26 400 in 1994 for treating AIDS and dealing with AIDS deaths, more than its profits of US\$24 514 [43].

Macroeconomic impact

Will the epidemic have an impact at the macroeconomic level? Again there is no hard evidence. There have been attempts to model the macroeconomic impact, but this is fraught with difficulty. Overviews [44,45] identify the mechanisms through which the epidemic may affect macroeconomies as a result of the illness and death of productive members, and the diversion of resources from savings (and eventually investment) to care. There have also been attempts to model the economic impact for specific countries, including Tanzania [46], Cameroon [47], and Zambia [48]. These models show that HIV may well reduce the rate of economic growth and, over a period of 20 years, this may be significant (up to 25% lower than it would otherwise have been). However, in order to make

this prediction, projections of both the AIDS epidemic and economic trends have to be combined. Both are difficult to model and combining them compounds the uncertainty.

The caution with which macroeconomic modeling of the impact of AIDS should be applied is borne out by work in Kenya [42]. A macroeconomic model predicts that, by 2005, Kenya's gross domestic product (GDP) will be 14.5% smaller than it would have been in the absence of AIDS. When the sensitivity analysis is carried out, the range of negative impact ranges from 2% in the most optimistic case to 23% in the most extreme. The model assumes that the Kenyan GDP would grow by 4% per annum from 1985 to 2005 in the absence of AIDS. However, the GDP growth rate was 4.2% from 1980–1990 but only 0.9% from 1990–1994 [49].

Beyond economic analysis

If, as is increasingly recognized, development is about more than economic growth and increases in GDP per capita, then the impact of AIDS is measurable and considerable. The United Nations Development Programme (UNDP) Human Development Indicator (HDI) combines three basic components of human development: longevity, knowledge and standard of living. When this is examined, in conjunction with indicators such as infant, child and maternal mortality and income distribution, the impact of the epidemic is already evident and will get very much worse.

The effect of AIDS will be to reverse hard-won development gains and make people and nations worse off. It is possible that these effects may last for decades. The people who fall ill and die are the parents and leaders in society, which means that a generation of children may grow up without the care and the role models they would normally have.

References

1. Blaikie P, Cannon T, Davis I, Wisner B: *At risk: Natural Hazards, People's Vulnerability, and Disasters*. London: Routledge; 1994:55.
2. Mann I, Daniel Tarantola: *AIDS in the World II*. New York: Oxford University Press; 1996:15–16.
3. Centers for Disease Control and Prevention: Update: trends in AIDS incidence, deaths, prevalence. *MMWR* 1997, 46:1–8.
4. Adetunji JA: Assessing the mortality impact of HIV/AIDS relative to other causes of adult deaths in sub-Saharan Africa. *Socio-Demographic Impact of AIDS in Africa Conference*. Durban, February 1997.
5. Boerma JT, Ngalula I, Isingo R, et al.: Levels and causes of adult mortality in rural Uganda with special reference to HIV/AIDS. *Socio-Demographic Impact of AIDS in Africa Conference*. Durban, February 1997.
6. Nunn AJ, Mulder DW, Kamali A, et al.: Five-year HIV-1 associated mortality in a rural Ugandan population. *Socio-Demographic Impact of AIDS in Africa Conference*. Durban, February 1997.
7. Bryson YI: Perinatal HIV-1 transmission: recent advances and therapeutic interventions. *AIDS* 1996, 10 (suppl 3):S33–S42.
8. Cohen B, Trussel I (eds): *Preventing and Mitigating AIDS in Sub-Saharan Africa: Research and Data Priorities for the Social and Behavioral Sciences*. Washington, DC: National Academy Press; 1996:96.
9. Ntozi JPM, Nakanaabi IM: AIDS epidemic and infant and child mortality in six districts of Uganda. *Socio-Demographic Impact of AIDS in Africa Conference*. Durban, February 1997.
10. McDavitt TM: *World Population Profile: 1996*. Washington, DC: US Department of Commerce; 1996.
11. Way PO, Stannecki KA: *The Impact of HIV/AIDS on World Population*. Washington, DC: US Bureau of Census, US Government Printing Office; 1994.
12. Stannecki KA, Way PO: *The Demographic Impacts of HIV/AIDS: Perspectives from the World Population Profile: 1996*. Washington, DC: International Programs Center, Population Division, Bureau of the Census; 1997.
13. Gregson S: Will HIV become a major determinant of fertility in sub-Saharan Africa? *J Develop Studies* 1994, 30:650–679.
14. Gregson S, Zhuwau T, Anderson RM, Chandiwana SK: HIV-1 and fertility change in rural Zimbabwe. *Socio-Demographic Impact of AIDS in Africa Conference*. Durban, February 1997.
15. Ainsworth M, Filmer D, Senali I: The impact of AIDS mortality on individual fertility: evidence from Tanzania. *Workshop on The Link Between Infant and Child Mortality and Fertility*. Washington DC, November 1995.
16. Gray RH, Serwadda D, Wawer MJ, et al.: Reduced fertility in women with HIV infection: a population-based study in Uganda. *Socio-Demographic Impact of AIDS in Africa Conference*. Durban, February 1997.
17. Carpenter LM, Nakiyingi JS, Ruberantwari A, Malamba S, Kamali A, Whitworth JAC: Estimates of the impact of HIV-1 infection on fertility in a rural Ugandan cohort. *Socio-Demographic Impact of AIDS in Africa Conference*. Durban, February 1997.
18. Stover J: *The Impact of HIV/AIDS on Population Growth in Africa*. Washington, DC: African Population Advisory Committee Secretariat; 1993.
19. Garnett GP, Anderson RM: No reason for complacency about the potential demographic impact of AIDS. *Trans Roy Soc Trop Med Hyg* 1993, 87 (suppl 1):S19–S22.
20. Anderson RM, May RM, Boily MC, Garnett GP, Rowley JT: The spread of HIV-1 in Africa: sexual contact patterns and the predicted demographic impact of AIDS. *Nature* 1991, 352:581–589.
21. Rowley JT, Anderson RM, Ng TW: Reducing the spread of HIV infection in sub-Saharan Africa: some demographic and economic consequences. *AIDS* 1990, 4:47–56.
22. Way PO: Demographic impact of HIV in less-developed countries. *VIII International Conference on AIDS*. Amsterdam, July 1992.
23. Stover J: The future demographic impact of AIDS: what do we know? *Workshop on AIDS in Development: The Role of Government*. Château de Lincollette, June 1996.
24. Stover J, Way PO: Impact of interventions on reducing the spread of HIV in Africa: computer simulation applications. *Afr J Med Pract* 1995, 2:110–120.
25. Ntozi JPM: Widowhood, remarriage and migration during the HIV/AIDS epidemic in Uganda. *Socio-Demographic Impact of AIDS in Africa Conference*. Durban, February 1997.
26. WHO: *The current global situation of the HIV/AIDS epidemic. Global Programme on AIDS, Memo 3*. Geneva: World Health Organization; 1996.
27. Mark U, Ng'weshemi JZL, Isingo R, Kumogola Y, Boerma JY: Orphanhood, child fostering and the AIDS epidemic in rural Tanzania. *Socio-Demographic Impact of AIDS in Africa Conference*. Durban, February 1997.
28. Kamali A, Whitworth JAC, Ruberantwari A, Carpenter LM: Impact of the HIV-1 epidemic on orphan mortality in a rural Uganda population cohort. *Socio-Demographic Impact of AIDS in Africa Conference*. Durban, February 1997.
29. Murray C, Lopez A: *The Global Burden of Disease, Global Burden of Disease and Serious Injury. Vol. 1*. Geneva: WHO; 1996.
30. Barnet T, Blaikie P: *AIDS in Africa: Its Present and Future Impact*. London: Belhaven Press; 1992:66.
31. World Bank: *Tanzania AIDS Assessment and Planning Study*. Washington, DC: World Bank; 1992.
32. Ainsworth M, Susnita G, Innocent S: The impact of adult deaths on household composition in Northwestern Tanzania. *IX International Conference on AIDS and STD in Africa*. Kampala, December 1995 [abstract MoD067].
33. Beegle K, Ainsworth M, Lwihula G: Reorganising household activities to cope with adult deaths. *IX International Conference on*

- AIDS and STD in Africa*. Kampala, December 1995 [abstract WeD269].
34. Over M, Mujinja PGM: The magnitude and duration of the impact of adult mortality on the per capita income, consumption and savings of household in Kagera Tanzania. *IX International Conference on AIDS and STD in Africa*. Kampala, December 1995 [abstract WeD267].
 35. Mujinja P, Over M: Expenditures on medical care and funerals in households experiencing adult deaths in Northwestern Tanzania. *IX International Conference on AIDS and STD in Africa*. Kampala, December 1995 [abstract WeD268].
 36. Roseberry W: *AIDS Prevention and Mitigation in Sub-Saharan Africa An Updated World Bank Strategy*. Washington, DC: World Bank; 1996.
 37. Konde-Lule JK, Wawer MJ, Nalugoda F, Gray RH, Monon R: HIV infection in rural households, Rakai District, Uganda. *Socio-Demographic Impact of AIDS in Africa Conference*. Durban, February 1997.
 38. Africa Institute of South Africa: *Africa at a Glance 1995/6*. Pretoria: Africa Institute; 1995.
 39. Jones C: *The Microeconomic Implications of HIV/AIDS*. Dissertation. East Anglia: University of East Anglia; 1996:42.
 40. Baggeley R, Chilangwa D, Godfrey-Faussett P, Porter J: Impact of AIDS on Zambian business. *VIII International Conference on AIDS in Africa/VIII African Conference on Sexually Transmitted Diseases*. Marrakech, December 1993 [abstract W.R.T. 003].
 41. Biggs T, Kedla SM, Pradeep S: The impact of the AIDS epidemic on African firms. *AIDS and Development: The Role of Government Conference*, Château de Limelette, June 1996.
 42. Forsyth S, Rau B (eds): *AIDS in Kenya: Socio-Economic Impact and Policy Implications*. Arlington: Family Health International/AIDSCAP; 1996.
 43. Lowenson R, Whiteside A: *Social and Economic Issues of HIV/AIDS in Southern Africa*. Harare: SAIADS; 1997.
 44. Cohen D: *The Economic Impact of the HIV Epidemic*. New York: UNDP; 1992.
 45. Over M: *The Macroeconomic Impact of AIDS in sub-Saharan Africa*. African Technical Department, Population, Health and Nutrition Division, Technical Working Paper No. 3. Washington, DC: World Bank; 1992.
 46. Cuddington JT: Modeling the macroeconomic effects of AIDS, with an application to Tanzania. *World Bank Economic Rev* 1992, 7:403-417.
 47. Kambou G, Devarajan S, Over M: The economic impact of AIDS in an African country: simulations with a computable general equilibrium model of Cameroon. *J Afr Economics* 1992, 1:109-130.
 48. Forgy L, Mwanza A: *The Economic Impact of AIDS in Zambia*. Lusaka: Ministry of Health; 1994.
 49. World Bank: *World Development Report 1996*. New York: Oxford University Press; 1996.