

The Global Economic Crisis

and HIV Prevention and Treatment Programmes: Vulnerabilities and Impact



The World Bank
Global HIV/AIDS Program

Tel: +1 202 458 4946
Fax: +1 202 522 1252
e-mail: wbglobalHIVAIDS@worldbank.org

www.worldbank.org/AIDS

UNAIDS
20 avenue Appia
CH-1211 Geneva 27
Switzerland

Tel.: (+41) 22 791 36 66
Fax: (+41) 22 791 48 35
e-mail: distribution@unaids.org

www.unaids.org

The Global Economic Crisis

and

HIV Prevention and Treatment Programmes:

Vulnerabilities and Impact

June 2009



THE WORLD BANK



Contents

Acknowledgements	v
Abbreviations	v
Executive summary.....	vii
Introduction	1
AIDS programmes and risks	2
Treatment risks.....	2
Prevention risks	4
Perceptions of vulnerability of treatment and prevention programmes	5
Perceived impact on antiretroviral treatment	6
Vulnerability of prevention programmes.....	10
Countries' exposure to the global crisis	13
Most-exposed countries.....	16
Less-exposed countries.....	17
Least-exposed countries	17
Role of external financing	17
Countries' capacity to respond.....	19
Implications: innovation and action	22
References	25

List of boxes

Box 1: Survey of the impact of the economic crisis on antiretroviral treatment and prevention (March 2009).....	6
Box 2: What are the characteristics of programmes that are well protected?	8
Box 3: How do countries adjust? The case of a Caribbean country.....	8
Box 4: Type of impact on countries' AIDS programmes reported	10
Box 5: Examples of reported impact on prevention programmes	12
Box 6: Country Policy and Institutional Assessments (CPIA) by the World Bank	19
Box 7: Types of assistance needed, as identified in the survey	21

List of figures

Figure 1: Adverse Impact on treatment to date and in the next 12 months.....	7
Figure 2: Percentage of people on treatment in the countries which could be affected in the next 12 months	7
Figure 3: Adverse impact on prevention.....	11
Figure 4: Economic crisis and HIV	13
Figure 5: External financing for antiretroviral treatment.....	18

List of tables

Table 1: Classification of exposed programmes by funding source, size of AIDS burden and external shock to country economy 1/ 16

Table 2: Affected countries' ratings of fiscal and institutional capacity 20

Acknowledgements

The paper has been developed through a collaborative effort by the World Bank and the UNAIDS Secretariat with valuable contributions from WHO. René Bonnel was the lead author, with support from Joy de Beyer (Global HIV/AIDS Program, World Bank) and Dianne Bennett (WHO).

The UNAIDS Secretariat led the survey data collection effort. WHO and UNAIDS mobilized their country-based colleagues to respond quickly to the survey; staff from across the World Bank also responded. WHO staff contributed technical information on HIV treatment and risks, particularly on treatment (Siobhan Crowley and Marco Vitoria), drug resistance (Diane Bennett) and TB/HIV (Reuben Granich).

The report benefitted from careful and detailed review and input from a working group chaired by Antony Thompson (Global HIV/AIDS Program, World Bank) and including Paul De Lay, Carlos Avila, Robin Jackson (UNAIDS Secretariat), Kerry Kutch, George Schmid and Dongbao Yu (HIV Department, WHO) and Robert Oelrichs (Global HIV/AIDS Program, World Bank). We are most grateful to all those who provided information and insights, including members of the Economics Reference Group, who discussed an earlier draft of the paper.

Abbreviations

AIDS	acquired immunodeficiency syndrome
HIV	human immunodeficiency virus
IMF	International Monetary Fund
UNAIDS	Joint United Nations Programme on HIV/AIDS
WHO	World Health Organization

Executive summary

The global economic crisis threatens recent gains in health and poverty reduction in developing countries. What is the effect of the crisis on HIV programmes, especially in high HIV prevalence countries? What are the possible consequences? What can be done to avoid negative impacts? Information collected in late March 2009 from respondents in 71 countries (in which 3.4 million people are on antiretroviral treatment) indicates that:

- **Respondents in 11% of the surveyed countries report that the global crisis is already affecting antiretroviral treatment programmes.** There are 427 000 people on treatment in these eight countries. These countries include 13% of people on treatment.
- **Respondents in 31% of the countries, where 1.8 million people are on antiretroviral treatment, expect an impact on treatment this year.** There is a risk that scaling-up treatment access for the two thirds of people living with HIV who need, but are not on, treatment will stall.
- **There is considerable uncertainty.** In 30% of countries (21 countries), respondents were unsure if treatment would be affected. This applies particularly to Latin America and Asia. These countries are affected by the crisis, but respondents are unsure how much it will affect the government budget, which is the main source of funding for their HIV programmes.
- **Treatment programmes appear more vulnerable in some regions.** Respondents expect an impact in sub-Saharan Africa, Eastern and Central Europe and the Caribbean, but not in North Africa, the Middle East and Latin America and Asia (except for two countries).

Much is at risk: increased mortality and morbidity, unplanned interruptions or curtailed access to treatment, with increased risk of HIV transmission, higher future financial costs, increased burden on health systems and reversal of economic and social development gains:¹

- *Increased mortality and morbidity.* Failure to maintain current financial commitments to support the scaling-up of antiretroviral treatment is likely to lead to preventable deaths and disease (including increased tuberculosis (TB)) due to HIV. The 3.4 million people reported to be on treatment in the 71 surveyed countries are only about one third of those who need it.
- *Greater transmission risks.* Stopping treatment will affect HIV transmission, as people off treatment become far more infectious. Interruption of antiretroviral treatment for pregnant women will lead to increased numbers of babies becoming infected.
- *Higher financial costs.* Disorganized stopping and restarting of treatment make development of drug resistance and treatment failure more likely,

¹ These consequences are not derived from the survey, but from other medical and economic analyses of the HIV epidemic.

possibly requiring premature use of more costly second-line regimen drugs over the long term.

- *Increased burden on health systems.* Interruptions or cuts in treatment will result in more people with HIV-related illnesses, which will crowd public hospitals once again at a time when budgets are being squeezed. The ability of health systems to provide services could be reduced due to increased morbidity and mortality of health professionals.

Antiretroviral treatment is vulnerable for reasons that vary across countries:

- In some countries **the affordability of antiretroviral treatment** is affected by declining household incomes and/or increased cost of antiretroviral drugs (due to exchange rate devaluation). There is a risk that declining food security will lead some people to discontinue treatment, due to a lack of adequate food (which is necessary for taking antiretroviral drugs).
- Some respondents report that the availability of antiretroviral treatment is threatened by **budget cuts**.
- Many respondents are concerned that the financial sustainability of antiretroviral treatment programmes that depend mainly on **external aid is uncertain**. There are no reports of substantial cuts in donor assistance for 2009, but respondents in nearly 40% of the surveyed countries report that the current funding commitments for treatment programmes will end in 2009 or 2010, and most fear that external assistance will not increase or even be maintained at current levels.

Prevention efforts appear especially under threat:

- **Respondents in 34 countries where 75% of people with HIV live expect prevention programmes for populations at higher risk to be affected.** This is far more than the percentage of respondents who expect treatment programmes to be affected.
- Respondents say that **prevention efforts for populations at higher risk are especially vulnerable**, because they are politically easier to cut. This is extremely worrisome—less prevention that results in more new infections will mean greater future treatment needs, with large cost implications. The welfare and economic costs to affected families are obviously very high.

A core challenge is to maintain and expand access to HIV treatment and prevention. The following urgent interventions are needed:

Use existing funding better:

- Especially in countries facing cuts in their national AIDS response budgets, provide technical support to reallocate resources from low- to high-impact prevention and treatment programmes;
- In all countries, seek ways to make programmes more efficient and more cost-effective, to get more impact and value for money.

Address urgent funding gaps:

- For countries with a high reliance on external funding for HIV, strengthen collaboration between national authorities and major international funders to identify and address impending cash-flow interruptions;
- Provide bridge financing as necessary to avoid cash-flow interruptions;
- For countries that receive emergency budgetary financial support,² identify an appropriate base level of funding for HIV to be included as part of a social protection package.

Monitor risks of programme interruption:

- A simple warning system might be established to anticipate and minimize treatment interruptions;
- Carry out regular surveys to identify “vulnerable” countries and provide tailor-made financial and policy assistance;
- Avoid cuts in effective prevention, especially for populations at higher risk.

Plan for an uncertain environment. The uncertainty that many respondents note calls for contingency planning:

- Contingency plans could consider changes that could be made to ensure continued access to treatment and realistic expansion plans, and to maintain the most effective, highest priority prevention activities under alternative potential funding scenarios;
- Develop resource mobilization strategies that include sources of finance that can be sustained over the long term.

² Budgetary support refers to financial assistance that is given directly to the government budget. Unlike project support, this assistance usually is not tied to a specific sector or purpose.

Introduction

The financial crisis that started in the most-developed economies has become a global economic crisis which threatens gains in health and poverty reduction in developing countries. Advanced economies are projected to suffer deep recessions in 2009, with their gross domestic product (GDP) contracting by 5% on average—the first such fall in 60 years. This is generating fears that official development assistance, and in particular resources for social sector spending, including funding for HIV services and commodities, would remain flat during the next few years.

The feedback loop between a corrosive financial sector and declining economic activities has spilled over to developing countries. Their economic growth is expected to slow sharply, from 6.1% in 2008 to 1.6% in 2009.³ Many households may experience increased mortality and morbidity if the commitments pledged by the international community to sustain and increase access to antiretroviral treatment are not honoured and/or government expenditures on AIDS are reduced. Even temporary interruptions in treatment access can have long-term effects which are costly to reverse. This is discussed in Section I, which outlines the risks to AIDS programmes and the impacts that may result from the crisis.

Are they likely to occur? To find out, a survey of UNAIDS, WHO and World Bank staff in 71 countries was carried out in March 2009. The results of the survey are combined with technical information on treatment and drug resistance and the World Bank Country Policy and Institutional Assessment database to identify risk profiles for national AIDS programmes and to propose some appropriate responses by countries and international partners. The analysis in Section II attempts to identify which AIDS programmes are most exposed to the current crisis. Section III discusses whether the exposed countries have the means to respond to the crisis and concludes with recommendations for the international community and vulnerable countries.

³ World Economic Outlook: Crisis and Recovery, IMF, April 2009.

AIDS programmes and risks

Treatment risks

Combination antiretroviral treatment, typically three drugs taken daily, suppresses levels of HIV ("viral load") in the blood to undetectable levels and halts the progressive damage to the immune system and development of severe morbidity and mortality. In the USA, AIDS deaths declined by 83% between 1995 and 2001. By the early years of this decade, the striking success of antiretroviral treatment had been demonstrated in developed countries. This, coupled with growing international realization of the catastrophic impact of AIDS, particularly in Africa, lent support to the rapid expansion of HIV treatment programmes in the developing world. New approaches to health care were developed to deliver and monitor this complex therapy by the simplest possible methods—the "public health approach"—and the prices of antiretroviral treatment drugs fell dramatically.

Earlier concerns that expansion of antiretroviral treatment in developing countries would result in poor adherence and high levels of drug-resistant HIV have not materialized. Patients in Africa take their medications with the same—or greater—care as their developed world counterparts. The number of people requiring second-line therapy has so far been small, and drug-resistant HIV in the population has remained at low rates.

These gains are threatened, however, by the potential impact of the global crisis, which could lead to interruption of treatment and continued denial of treatment to those who need but are not yet on treatment. Failure to maintain current financial commitments to scale up antiretroviral treatment globally would lead to:

- Increased HIV-related mortality and morbidity;
- A potential increase in HIV drug resistance;
- Reduced prevention of HIV transmission (through the effect that antiretroviral treatment can have on prevention, as well as through mother-to-child transmission);
- Increased number of tuberculosis (TB) cases.

Increased mortality and morbidity. If antiretroviral treatment is interrupted, fewer than three drugs are taken, or adherence is poor, HIV replication will no longer be suppressed. Once the viral load becomes high, damage to the immune system and development of life-threatening conditions is likely. Interruption of antiretroviral treatment is associated with development of AIDS-related illnesses and mortality. Most people who stop and do not restart antiretroviral treatment will die within one to two years.

Even short-term interruptions of drug supplies could threaten the health of millions of patients taking antiretroviral treatment. Both the number of antiretroviral treatment interruptions of more than two days and the number of days off antiretroviral treatment during an interruption (up to 30 days) increase the risk of

treatment failure.^{4 5} Up to 50% of patients whose treatment is interrupted for 15 days (or more) may subsequently experience treatment failure if they resume the same regimen.

Potential increase in drug resistance. The number of people requiring second-line therapy has been small, and drug-resistant HIV in the population has remained low. However, if drug resistance develops during antiretroviral treatment interruption, a switch to second-line antiretroviral treatment could be necessary to prevent disease progression. In nearly all low- and middle-income countries, second-line therapy is less available and five to ten times more expensive than first-line therapy.

Patients on standard first-line antiretroviral treatment⁶ in developing countries are at risk of developing drug-resistant HIV if they have one or more treatment interruptions of more than 48 hours. The risk increases with the number and duration of treatment interruptions.^{7 8} The mutations most likely to develop are NNRTI mutations, which are likely to result in treatment failure if the same regimen is resumed after the interruption.

Transmission of drug-resistant HIV will be limited during a prolonged treatment interruption, because the resistant HIV will rapidly cease to be the majority subspecies in body fluids. But the drug-resistant strain will re-emerge if the individual is treated with the same regimen and could be transmitted once the person has resumed therapy. If treatment interruptions become frequent for many individuals currently on antiretroviral treatment, the risk of transmission of drug-resistant HIV will increase. For those to whom NNRTI-resistant HIV is transmitted, the risk of failure of the standard first-line regimens would be high.

Increased potential for HIV transmission. It is increasingly recognized that placing people on antiretroviral treatment not only provides significant health benefits but also has considerable potential to impact upon HIV transmission.⁹ This is particularly true for interrupting mother-to-child transmission, which has been virtually eliminated in the USA and a number of other countries. Stopping antiretroviral

⁴ Parienti JJ, Das-Douglas M, Massari V, Guzman D, Deeks SG, Verdon R and Bangsberg DR. Not all missed doses are the same: sustained NNRTI treatment interruptions predict HIV rebound at low-to-moderate adherence levels. *PLoS ONE*, 2008;3:e2783.

⁵ Bisson GP, Gross R, Bellamy S, Chittams J, Hislop M, Regensberg L, Frank I, Maartens G and Nachega JB. Pharmacy refill adherence compared with CD4 count changes for monitoring HIV-infected adults on antiretroviral therapy. *PloS Med*, 2008; 5:e-109.

⁶ This consists of one non-nucleoside reverse transcriptase inhibitor (NNRTI) and two nucleoside reverse transcriptase inhibitors (NRTI).

⁷ Parienti JJ, Massari V, Descamps D, Vabret A, Bouvet E, Larouze B and Verdon R. Predictors of virologic failure and resistance in HIV-infected patients treated with nevirapine- or efavirenz-based antiretroviral therapy. *Clin Infect Dis*, 1-5-2004;38:1311-1316.

⁸ Oyugi JH, Byakika-Tusiime J, Ragland K, Laeyendecker O, Mugerwa R, Kityo C, Mugenyi P, Quinn TC and Bangsberg DR. Treatment interruptions predict resistance in HIV-positive individuals purchasing fixed-dose combination antiretroviral therapy in Kampala, Uganda. *AIDS*, 11-5-2007; 21:965-971.

⁹ Granich RM, Gilks CF, Dye C, De Cock KM, Williams BG, Universal voluntary HIV testing with immediate antiretroviral therapy as a strategy for elimination of HIV transmission: a mathematical model. *The Lancet*, 2009; 373 (9657):48-57.

treatment expansion and downsizing the current number of people on antiretroviral treatment may result in a significant loss of antiretroviral treatment prevention benefit and a corresponding increase in the number of people newly infected with HIV.

Tuberculosis is the most important cause of adult deaths from infectious diseases after AIDS in low- and middle-income countries. By the end of 2007 it was estimated that there were nearly 1.4 million people living with HIV who have developed TB and nearly half a million deaths. In heavily affected countries, where over a third of people are infected with TB, HIV is driving the TB epidemic. People with immune systems weakened by HIV have an estimated 10% *per year* risk of developing TB compared with a 10% *lifetime* risk for those without HIV. Antiretroviral treatment protects immune systems and reduces the risk of developing TB. Providing access to antiretroviral treatment is therefore a critical public health intervention to prevent people living with HIV from developing TB.

International efforts in TB treatment and control have been projected to save 14 million lives by 2015 and have broader benefits for nations and economies. The great majority of TB cases occur among people in their economic prime. A 2008 World Bank study estimated that the economic benefits of investing in TB control to implement the Global Plan to Stop TB, relative to a no-DOTS¹⁰ scenario, exceeded costs 15-fold in the 22 high TB burden countries. These programmes are also vulnerable to the impacts of the economic crisis. An increase in poverty may facilitate the spread of TB by sharply increasing the number of cases, overwhelming already overstretched health systems. Failure to maintain or increase current support for TB programmes will lead to lower case finding and inadequate TB treatment—leading to a sharp increase in drug-resistant cases.

Prevention risks

The 2008 Report on the Global AIDS Epidemic offered some good news. It provided evidence that the HIV epidemic was stabilizing at the global level¹¹ and indicated that in a number of countries in Asia, Latin America and Africa the number of new infections has fallen. Overall trends showed that reductions in risky behaviour had occurred in several countries, contributing to the stabilization of the epidemic. These results underscored that providing the right interventions could have substantial benefits, as suggested by model simulations which showed that half of all infections projected to occur between now and 2015 could be averted,¹² an outcome which would likely move the epidemic into a long-term decline.

To realize this potential, prevention interventions must be brought to scale. This means that the appropriate mix of prevention strategies must achieve sufficient coverage, intensity and duration to have an optimal public health impact. This is especially the case for populations at higher risk. Currently, nearly all countries (92%)

¹⁰ Directly Observed Treatment—the global standard “best practice” for treating active TB.

¹¹ UNAIDS. 2008 Report on the Global AIDS Epidemic. Geneva: UNAIDS, 2008.

¹² Stover J et al. (2006). The global impact of scaling up HIV/AIDS prevention programs in low- and middle-income countries. Science. DOI: 10.1126/Science 1121176.

have a policy or strategy to promote HIV prevention for populations at higher risk of HIV exposure (UNGASS Country Progress Reports, 2008). However, prevention services for these populations have been brought to scale in relatively few settings, leaving most people at the highest risk of HIV exposure with little or no access to HIV prevention services.

The current financial crisis threatens to make this situation even worse. For most developing countries, the crisis is likely to reduce budgetary revenues (from taxes and/or donor assistance). To offset the resulting worsening fiscal deficit, the natural reaction of governments is to cut prevention services, especially for populations at higher risk, as providing prevention services for these groups often does not have much political support compared with other groups, such as orphans or pregnant women. Prevention interventions provided by the private sector are also at risk. In a context of shrinking profits, private firms will strive to cut costs and especially activities which are viewed as unimportant for short-term profits. Civil society and especially nongovernmental organizations are confronted with a different situation. While donors have so far honoured their aid commitments, some are under pressure to scale back future aid commitments, which would adversely affect the activities of nongovernmental organizations, and especially the delivery of services to populations at higher risk, an area where nongovernmental organizations are usually viewed as being best placed for delivering such services.

Perceptions of vulnerability of treatment and prevention programmes

To better understand the extent to which the current crisis is affecting AIDS programmes, a survey of UNAIDS country coordinators, WHO country officers and World Bank project team leaders was carried out in March 2009. The objective was to obtain a rapid assessment of how the economic crisis may be affecting access to antiretroviral treatment and HIV prevention. The survey questionnaire was purposely kept short in order to obtain a quick response and provide a rapid snapshot (Box 1). The response rate and geographical coverage were good: answers were obtained within a week from respondents in 71 countries in seven geographical regions. The information provided by respondents is that these countries are home to 3.4 million people on antiretroviral treatment (nearly 100% of those under treatment worldwide in developing countries). With the caveat that the survey reflects only the informed opinion of the respondents, it provides a representative sample of how national HIV programmes are being affected by the crisis.

Box 1: Survey of the impact of the economic crisis on antiretroviral treatment and prevention (March 2009)

The survey was sent to UNAIDS country coordinators, WHO health officers and World Bank project team leaders. Information was received from respondents for 71 countries. Each region was well represented, as follows:

- Asia and Pacific: 12 countries
- Latin America: 10 countries
- Western Africa: 13 countries.
- Eastern/Central Europe and Commonwealth of Independent States: 11 countries
- Caribbean region: 5 countries
- Eastern and Southern Africa: 16 countries
- North African and Middle East: 4 countries

The following questions were asked:

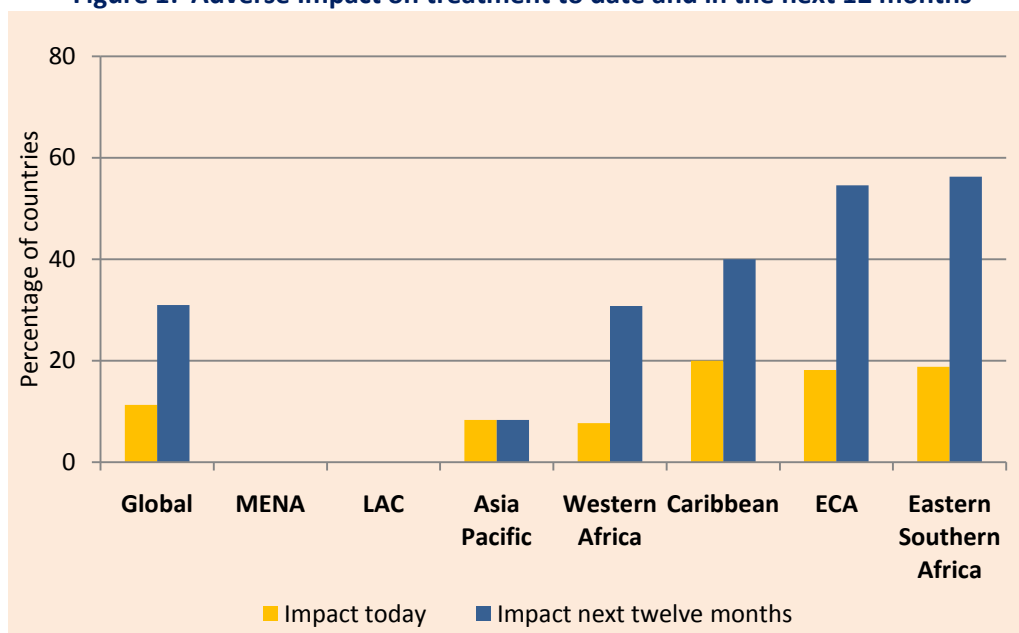
1. Do you believe, based on current knowledge, that there has been an impact of the global financial crisis on national antiretroviral treatment?
2. Please provide qualitative or anecdotal evidence of the impact of the crisis on HIV/TB treatment programmes, if available.
3. Do you believe, based on current knowledge, that there will be an impact of the global financial crisis on national antiretroviral treatment programmes in the next 12 months?
4. What will that impact be, if any?
5. What is your understanding of government's readiness to address the challenge of keeping people on antiretroviral treatment during this global financial crisis?
6. What estimated percentage of the total people living with HIV is currently on antiretroviral treatment in the country?
7. What is the number of people receiving antiretroviral treatment in the country?
8. What dollar amount is available or committed from all sources for antiretroviral treatment and how many years or months of continued antiretroviral treatment can be supported with the available resources?
9. Do you see any impact of the crisis on prevention programmes, especially for populations at higher risk?
10. Please provide qualitative or anecdotal evidence of the impact of the crisis on prevention programmes for populations at higher risk, if available.

Perceived impact on antiretroviral treatment

Respondents in 31% of the countries expect an impact on antiretroviral treatment during the year. Respondents in eight of the 71 countries report that there has already been an impact. However, respondents in 22 countries expect some impact over the forthcoming year (Figure 1). Concern is highest in Eastern and Southern Africa, followed by Eastern Europe, Central Europe and the Commonwealth of Independent States. The 22 countries for which an adverse impact is expected are home to 54% of people under treatment (Figure 2).

There is considerable uncertainty. In 21 countries, respondents were unsure if treatment would be affected. This applies particularly to Latin America (respondents in 60% of the countries were uncertain) and Asia and Pacific (42%). These countries are affected by the crisis, but respondents are unsure how much the government budget will be affected, which is the main source of funding for the AIDS response.

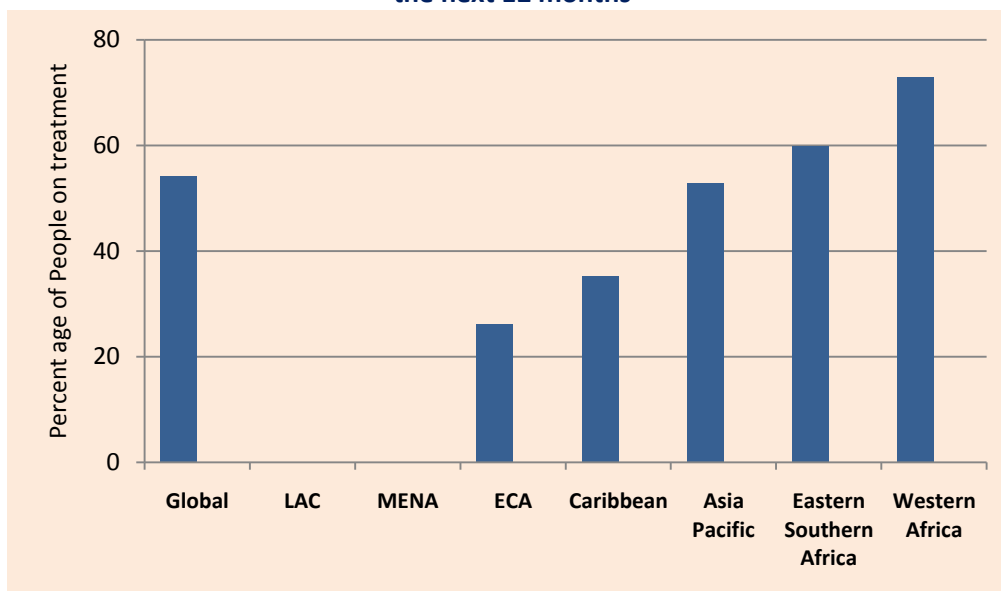
Figure 1: Adverse Impact on treatment to date and in the next 12 months



Source: UNAIDS/WHO/World Bank survey of 71 countries.

Note: ECA = Eastern Europe, Central Europe and the Commonwealth of Independent States; MENA = Middle East and North Africa; LAC = Latin America.

Figure 2: Percentage of people on treatment in the countries which could be affected in the next 12 months



Source: UNAIDS/WHO/World Bank survey of 71 countries.

Differences across regions are pronounced. Respondents do not expect treatment programmes in countries in **North Africa and the Middle East** to be affected by the global crisis. The cost of the small numbers of people on treatment in these countries can be financed through the government's own budget.

In Latin American countries, respondents also report no impact on treatment so far, and none expected in the forthcoming year. Although affected by the global crisis,

most countries in Latin America have a reasonably good budgetary situation which would allow them to continue financing their treatment programmes. In addition, most are highly committed to maintaining access to treatment (Box 2).

Box 2: What are the characteristics of programmes that are well protected?

Three common elements are observed among middle-income countries, where respondents report that the countries' treatment programmes are unlikely to be affected:

- **Strong commitment to treatment** as manifested by:
 - The principle of universal access to health services is recognized as a right and includes HIV diagnosis, treatment and care (e.g. Brazil, Chile);
 - Treatment is among the priority programmes of the ministry of health;
 - Antiretroviral drugs are included in the essential drug list and drug access is supported by a solid procurement system.
- **The health sector has capacity** (including health personnel) to provide treatment.
- **Sufficient national resources** allow countries to fund treatment from domestic revenues or social insurance funds.

Source: UNAIDS/WHO/World Bank survey of 71 countries.

Some Caribbean countries are likely to be affected. One of the five countries surveyed was said to be already experiencing an impact on treatment; in one other an impact is expected this year because the global crisis is depressing households' income (especially because of declining tourism receipts and workers' remittances) and the government's budget (Box 3). The other three countries have secure external funding for their programmes.

Box 3: How do countries adjust? The case of a Caribbean country

The economic crisis is affecting antiretroviral treatment through the following:

- Drug shortages and slow drug delivery;
- Increased unemployment and loss of income. This is affecting the general health and welfare of people living with HIV, in particular adequate nutrition, which is a prerequisite for taking antiretroviral drugs;
- Reduced access to private health care has led to some people living with HIV to get antiretroviral treatment without medical assessment and care, as they prefer not to use public clinics in order to avoid being stigmatized.

Faced with a shortage of funds the government is focusing on:

- Closer monitoring and accountability of drug procurements (cost, etc.);
- More careful planning and forecasting of antiretroviral treatment needs;
- Switching to generic drugs to reduce costs;
- Rationalization of drug regimens;
- Increased focus on adherence, to keep people on first-line regimens longer;
- Mid-term evaluation of the health sector, with presentation to the Cabinet and Prime Minister to assess possible reprogramming.

Source: UNAIDS/WHO/World Bank survey of 71 countries.

Nearly all respondents in Asian and Pacific countries see no impact yet. Only one expects an impact this coming year, but nearly half are uncertain. This region includes countries heavily dependent on external funding, but with firm commitments of financial support (especially from the Global Fund)—at least in the short to medium term. Other Asian countries (e.g. Thailand) are heavily export-dependent and finance treatment programmes mainly through their own budget. Both situations could affect future treatment sustainability and scale-up of access. During the previous Asian financial crisis, for instance, Thailand’s HIV budget fell 26% between 1997 and 2000.¹³

Respondents in six of 11 countries in Eastern and Central Europe and the Commonwealth of Independent States expect an impact in the next 12 months (55% of countries—the second highest percentage after Eastern and Southern Africa). This group includes countries which have been extremely affected by the financial crisis, with large exchange rate devaluations substantially increasing the cost of antiretroviral drugs. Not surprisingly, respondents in this region are extremely worried about the future of antiretroviral treatment programmes.

In Western Africa, treatment programmes may be affected in the forthcoming months. So far, little impact is noted (only one respondent reported an impact to date), but respondents in four countries (31%) expect an impact during the next 12 months. These countries include 76% of people under treatment in this region. Most low-income West African countries have so far been shielded from the direct impact of the financial crisis because of their lower reliance on private capital flows. These countries also have secure funding for antiretroviral treatment, and it is only in one fragile state with a difficult security situation that an impact has already been observed. However, oil-producing countries have come under fiscal pressure as the price of oil declined in 2008. This has raised expectations that the availability of antiretroviral treatment could be affected in the near future.

Eastern and Southern Africa is the region likely to be affected most. Three of 16 country respondents report an adverse impact already. However, this region includes countries that are the most vulnerable to the global economic crisis, with large percentages of poor households, large numbers of people on treatment and correspondingly high treatment programme costs. As a result, most respondents (56%) expect these countries to face an especially difficult situation.

¹³ For trends in AIDS spending, see Thailand’s Response to AIDS: Building on Success, Confronting the Future. World Bank, 2001.

Box 4: Type of impact on countries' AIDS programmes reported

The global crisis is affecting high HIV prevalence countries through different channels. Examples mentioned by respondents include:

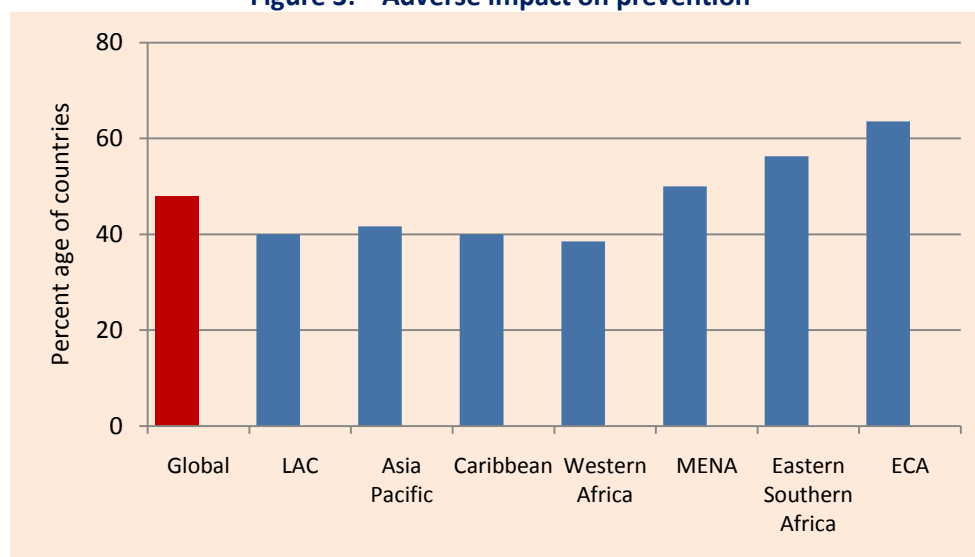
- **Budget cuts for HIV.** A respondent in one Pacific country reports a budget cut of 75%, due to a fall in external assistance. A respondent in an Eastern European country reports that the HIV budget was cut by 25%, affecting many of the treatment and prevention interventions envisaged by the national programme, including diagnosis and treatment of opportunistic infections and co-morbidities, sexually transmitted infection care and resistance monitoring.
- **Impact of devaluation.** This affects mainly Eastern European countries whose local currency budgets for antiretroviral procurement no longer cover the cost of imported antiretroviral drugs.
- **Shortages of antiretroviral drugs.** The respondent in one African country reports antiretroviral drug shortages a few months ago and that up to half the people on treatment are at risk of treatment interruption.
- **Disorganized access to drugs.** One Southern Africa country is reportedly not able to meet the demand for antiretroviral treatment for reasons which include poor planning, underestimation of demand and insufficient funding at the local level. This led to halting enrolment of new patients, interruption of treatment in some cases and patients sharing their antiretroviral drugs.
- **Reduction in health budget.** Respondents in four countries in Eastern and Southern Africa report health budget reductions. This may affect the delivery of health services and even payment of health worker salaries.
- **Cuts in external aid.** Several respondents mentioned that the HIV programme was affected by the 10% cut in funding allocations decided by the Global Fund for grants approved in Round 8.
- **Worsening nutrition.** Loss of income and increased poverty is likely to worsen food security and nutrition. Respondents in several countries mention that inadequate access to food is leading poor people to discontinue their medication and to increase risky behaviours such as transactional sex for food and money.

Source: UNAIDS/WHO/World Bank survey of 71 countries.

Vulnerability of prevention programmes

Strong expected impact on prevention programmes. Respondents in nearly half of the surveyed countries expect the global crisis to adversely affect prevention programmes. As these countries include 75% of people living with HIV, the potential adverse impact on prevention programmes is worrying (Figure 3). Respondents expect adverse effects on prevention efforts among marginalized populations at higher risk—injecting drug users, sex workers, prisoners, men who have sex with men. These groups tend to have a lower priority than, for example, young people and pregnant women. This concern was most pronounced in the Eastern European countries (7 out of 11), but also expressed in all the other geographical regions (Figure 3).

Figure 3: Adverse impact on prevention



Source: UNAIDS/WHO/World Bank survey of 71 countries.

In nearly all regions, more respondents expect an adverse impact on prevention than on treatment. Many respondents express a concern that when faced with cuts, prevention programmes for populations at higher risk will be cut first. This is the case whether prevention programmes are financed by domestic or external sources, highlighting the high vulnerability of prevention programmes for populations at higher risk to the global crisis independent of the funding source.

The challenge facing countries is inadequately prioritized prevention programmes. While most countries' national strategic frameworks recognize the need to invest in interventions likely to have the greatest impact, translating this principle into a prioritized set of interventions based on evidence of impact has proved difficult. Countries with epidemics concentrated in marginalized populations at higher risk often target too few resources to services for these populations. There is a risk that when faced with potential funding reductions, uniform cuts will be applied across all programmes rather than attempting to maximize the impact of the reduced funding. Programmes with earmarked financing are usually kept even if they have lower priority or are less effective than those which are cut.

At the household level, slower scaling-up of antiretroviral treatment and cuts in prevention will affect many people's health and survival and the welfare of their families. At the national level, scaling-up access to treatment limits lost GDP growth resulting from the loss of skills and human capital due to HIV. In some countries, macroeconomic estimates even suggest that the benefits of scaling-up treatment access could outweigh its cost.¹⁴

Taken together, these results suggest that there is a real risk that the HIV response will be negatively affected by the global crisis in 2009 and beyond. This economic

¹⁴ Venteloua B, Moatti JP, Videau Y and Kazatchkine M. Time is costly: modelling the macroeconomic impact of scaling-up antiretroviral treatment in sub-Saharan Africa. *AIDS* 2008, 22:107–113.

crisis is unprecedented: its global sweep and effect on both developed and developing countries limits the scope for developed countries to increase their financial assistance to offset the impact of the crisis on developing countries. The multidimensional effects of the global crisis in increased poverty, reduced nutrition and food security, and reduced delivery of government services will cause more severe long-term consequences than if only the funding of the AIDS response was affected. The combination of these effects has the potential to turn the economic crisis into a global social crisis. The next section considers which countries are more vulnerable.

Box 5: Examples of reported impact on prevention programmes

The reported impact on prevention programmes varies substantially across countries. Examples of effects expected by some respondents include:

Cuts in prevention programmes:

- “In middle-income countries budgetary cuts affect prevention programmes first” (quote from a respondent);
- Interventions for populations at higher risk will be cut due to a lack of strong political support, in particular for men who have sex with men, and harm reduction (e.g. methadone substitution programmes) for injecting drug users;
- Many respondents fear that if external aid is cut, treatment will receive priority over prevention programmes.

Reductions in the supply of prevention commodities (e.g. condoms, post-exposure prophylactic kits, HIV tests).

Increase in risk taking due to:

- Increase in economic migration (which creates challenges for delivering prevention services);
- Increased alcohol use and violence against women and young girls;
- Increased recreational drug use;
- Loss of jobs and income, which may increase the likelihood of people engaging in risky behaviour (particularly commercial or transactional sex) to generate income;
- Unprotected sex may be more frequent because of a deliberate choice to gain more money in exchange for unprotected sex.

Contraction of economic activity affecting the private sector (especially mining companies):

- Firms are more likely to cut prevention programmes. For instance, in one Southern African country large business corporations have been running comprehensive wellness programmes for employees and their families. Provision of antiretroviral treatment will continue, but HIV prevention activities—which are perceived as ineffective—will be cut. This will affect recruitment of peer educators, HIV education sessions, etc.

Potential reductions in service delivery by civil society:

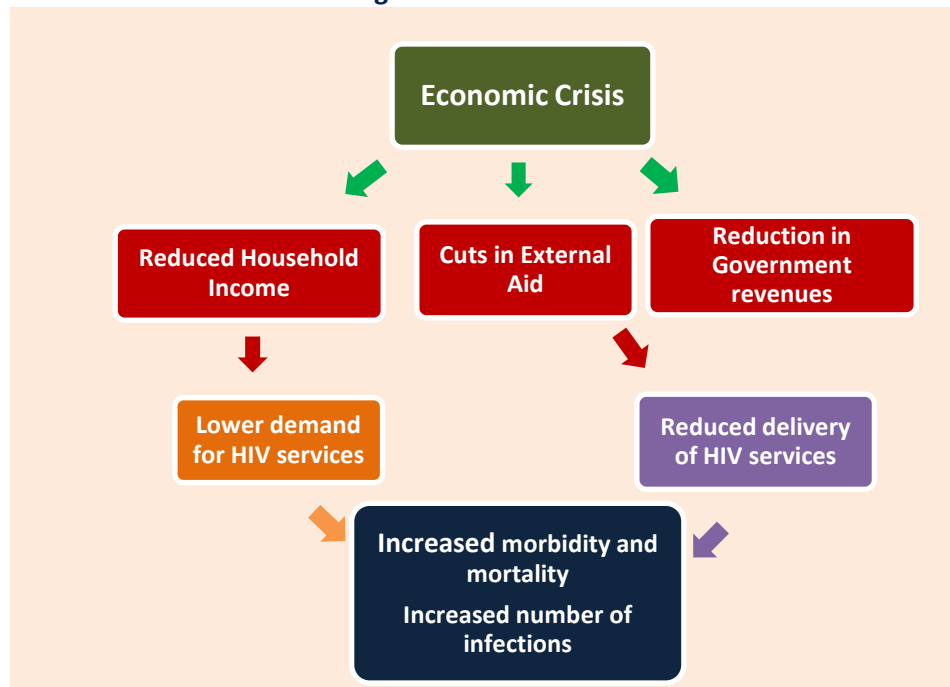
- Nongovernmental organizations and other civil society institutions may be forced to cut back if private sector donations fall.

Source: UNAIDS/WHO/World Bank survey of 71 countries.

Countries' exposure to the global crisis

In this section a simple conceptual framework is applied to classify countries according to the risk to their AIDS programme. The starting point is that the global economic crisis may affect HIV financing sources—government revenues, household incomes and external financial assistance. Cuts in AIDS programmes could lead to increased morbidity and mortality and new infections (Figure 4). Whether or not this happens depends on several factors, which include the size of the external shock resulting from the global crisis and the AIDS burden faced by countries.

Figure 4: Economic crisis and HIV



Source: Author

Domestic funding and external shocks. The AIDS response is most exposed when its funding is affected by the global crisis. This can occur when declining economic growth reduces government revenues and household incomes, undermining the financing of HIV services. The severity of the overall result depends on the interaction between the external shock and the size of the financial burden of the AIDS response (defined by the GDP share of HIV expenditures). Countries with a small HIV financial burden may be affected if domestic sources of funding decline sufficiently drastically. This seems to be happening in several countries with low-level HIV epidemics. In contrast, programmes in countries with a severe AIDS epidemic may be less vulnerable if the funding source has not yet been affected by the global crisis. A few countries in the survey seem to fall in this category.

These considerations suggest a classification of countries according to the size of the external shock, the extent to which countries finance AIDS expenditures through their own resources and the financial cost of AIDS programmes. These categories are discussed below and used in Table 1 for classifying countries.

Size of the external shock. Initial projections suggested moderate declines in economic growth worldwide, and few developing countries expected to be severely affected. Recent estimates are much more pessimistic. According to the April 2009 World Economic Outlook, 90% of countries for which data are available will experience a fall in GDP growth from 2008 to 2009,¹⁵ and in 50% of them GDP growth is likely to fall by more than 3 percentage points.¹⁶ This is a substantial fall in economic growth, so this value is defined as a large external shock. Its size matters particularly for domestic financing of the AIDS response.

Domestic financing of the AIDS response. Half the countries for which data are available provide more than 40% of AIDS funding from domestic resources.¹⁷ The budgetary revenues of developing countries are vulnerable because domestic taxes are likely to fall more or less proportionately to the decline in economic activity. So far, countries with the largest fall in economic activity are Eastern and Central European countries and the Russian Federation, and respondents in these countries expect AIDS treatment programmes and HIV prevention to be affected.

External financing. Many low income countries' AIDS programmes (especially in Western Africa and in Asia) have not been much affected by the financial crisis because they depend heavily on donors' financial assistance. But while slower to emerge, the impact of the crisis on these countries' programmes might be no less significant if the global economic crisis affects the capacity of donor countries to maintain existing levels or fund substantial increases in external aid.

Only three respondents report a cut in donor aid for this year. Nevertheless, respondents are concerned about future levels of foreign assistance in an international environment where nearly all the key donors may give less priority to increasing foreign assistance for HIV. These fears are certainly justified by the allocation reductions decided by the Global Fund during Round 8, and the May 2009 announcement that the Global Fund currently faces a funding gap of approximately US\$ 4 billion for the three year period 2008–2010.¹⁸ These concerns are further strengthened by the May 2009 announced budgetary allocations for the PEPFAR programme, which show a flat allocation for the next six years.

Affordability of health care. Job losses, earnings declines, reductions in remittances and large falls in economic activity all affect households' ability to pay for health care. In addition, the global crisis could worsen the food security and nutrition of poor households, which in turn adversely affects antiretroviral treatment—good

¹⁵ This group includes 60 countries which were surveyed and for which data are available. The change in growth rate is measured as the difference between the actual 2008 and the projected 2009 growth rate of GDP. Data are from the World Economic Outlook, IMF, April 2009.

¹⁶ In 16% of the countries, the projected decline in growth rates exceeds 10 percentage points.

¹⁷ Domestic/external funding shares are from the UNAIDS 2008 Report on the Global AIDS Epidemic.

¹⁸ Donor funding for the period stands at US\$ 9.5 billion, falling short of expected demand of at least US\$ 13.5 billion for 2008–2010. See updated demand estimate: http://www.theglobalfund.org/documents/replenishment/caceres/Updated_Demand_Estimate_March2009.pdf.

nutrition is essential for taking antiretroviral drugs. There are already some reports of people expressing difficulties in continuing their treatment due to a lack of food.¹⁹

In some countries, remittances might have a significant effect on the ability of households to afford antiretroviral treatment.²⁰ Globally, remittances reached US\$ 308 billion in 2008, nearly three times the total official development assistance.²¹ World Bank projections anticipate a 6% fall in remittances in 2009. Reductions in remittances, which are large relative to GDP in several small economies (Tajikistan: 45%, Lesotho: 29%, Honduras: 25% and Guyana: 24%), would have an obvious and immediate impact on ability to pay for health care (and food). This is more likely to occur when households finance a large share of health expenditures out-of-pocket—in Africa, household out-of-pocket spending accounts for up to 60% of total health expenditures.

Financial cost of the AIDS response. Overall, the most important risk factor is the financial cost of the AIDS response (although even programmes with a relatively low cost could be vulnerable in countries that face a large external shock). In half of the countries for which data are available, AIDS expenditures are less than 0.1% of GDP. In 20% of countries, they are more than 1% of GDP.²² In this paper, an arbitrary threshold of 1% is used to separate countries with a large AIDS financial burden from those with a low burden.

¹⁹ Gillespie S, Jere P, Msuyo J, Frimie S. Food Prices and the HIV Response: Findings from Rapid Regional Assessments in Eastern and Southern Africa. RENEWAL, IFPRI. March 2008.

²⁰ Antiretroviral treatment is in principle free in many countries. However, in many countries, patients must pay for testing or other services that are part of treatment, or make unofficial payments. And transport costs may also be a substantial financial burden.

²¹ World Bank, World Development Indicators 2008.

²² Expenditures on AIDS programmes are from the UNAIDS 2008 Report on the Global AIDS Epidemic. GDP figures are from the World Bank database.

Table 1: Classification of exposed programmes by funding source, size of AIDS burden and external shock to country economy 1/

	<i>Mainly domestic funding 2/</i>		<i>Mainly external funding 2/</i>		<i>Total</i>
	<u>AIDS burden 3/</u>		<u>AIDS burden 3/</u>		
	<u>Low</u>	<u>High</u>	<u>Low</u>	<u>High</u>	
<i>Low external shock 4/</i>	7 countries 2 affected	1 affected country	19 countries 3 affected	6 countries 2 affected	33 countries 8 affected
<i>High external shock 4/</i>	15 countries 8 affected	2 countries 2 affected	11 countries 1 affected	2 countries 1 affected	30 countries 12 affected
<i>Total</i>	22 countries 10 affected	3 countries 3 affected	30 countries 4 affected	8 countries 3 affected	63 countries 20 affected
<i>Affected (%) 5/</i>	45.5%	100%	2.5%	37.5%	31.7%

Notes:

- 1/ Due to data limitations only 63 of the 71 surveyed countries could be classified.
- 2/ At least 50% of AIDS programme funding.
- 3/ The AIDS burden is calculated as the ratio of AIDS expenditures to GDP (based on data from the 2008 Report on the Global Epidemic, UNAIDS, 2008). The threshold for a high burden is arbitrarily taken to be 1% of GDP.
- 4/ External shock size is measured by the difference between the 2008 and the 2009 projected GDP growth rate (data from the World Economic Outlook, International Monetary Fund (IMF), April 2009). The threshold for a high external shock is arbitrarily taken to be -3 percentage points.
- 5/ Countries in which survey respondents said treatment had been or is likely to be affected in the next 12 months.

Dark = most-exposed countries.

Medium grey = least-exposed countries.

Light grey = less-exposed countries.

Most-exposed countries

The most vulnerable programmes carry a high financial burden, funded out of governments' own revenues. Where the financial burden of AIDS programmes is high, even a small external shock can put them at risk.²³ This conclusion is confirmed by survey respondents, who expect all three countries in the “high AIDS financial burden, largely domestic financing” category to be affected. They are located in the vertical dark grey rectangle of Table 1.

Programmes funded by domestic sources that carry a small financial burden are also highly vulnerable in countries experiencing a substantial fall in economic growth. There are 15 programmes in this situation (in the dark grey cell in the first column of Table 1). Respondents in eight countries in this situation expect AIDS

²³ Declining export revenues can also have a direct impact on budgetary revenues. For instance, oil generates more than half of all revenues for the Congo, Equatorial Guinea, Gabon and Nigeria, similarly diamonds for Botswana.

programmes to be affected; respondents in the other seven countries (mainly Latin American countries) did not. However, the effects of the global crisis now appear to be much more severe than at the time of the survey, and our economic analysis suggests that these AIDS programmes are likely to be adversely affected.²⁴

Less-exposed countries

The less-exposed group includes countries in two situations. In one group of seven countries, the financial burden of the AIDS programme is low, domestic resources provide most of the financing and the effects of the global crisis are expected to be small. Only two respondents expect AIDS programmes to be affected. These countries are in the medium grey cell in the first column of Table 1.

Then there are eight countries with a high AIDS financial burden that rely on external financing for AIDS. For these programmes, the size of the external shock the country is experiencing is less relevant. In total, respondents in three countries expect AIDS programmes to be affected (the medium grey rectangle in Table 1).

Least-exposed countries

Countries that depend nearly entirely on external aid for treatment and whose AIDS financial cost is low are among the least exposed. Based on the information provided by respondents, 30 countries are in this category (light grey rectangle in Table 1) and only four respondents expect AIDS programmes to be affected (2.5%).

However, this group is not immune to the effects of the crisis. Respondents in nearly one third of the countries in this category are unsure whether external funding will be available as planned. This group includes countries which have small antiretroviral treatment programmes (9 to 500 patients on treatment). A challenge confronting them is that they may not receive the same degree of attention as countries with much larger antiretroviral treatment programmes.

Role of external financing

Uncertain and volatile financing. External financing has been crucial to the rapid scaling-up of the AIDS response. External financial assistance could become more volatile and less predictable in the context of the global crisis. It is difficult to predict the severity and duration of crises or their budgetary impact. This is often initially underestimated and it is only once the full impact of the crisis unfolds that the full effects become apparent,²⁵ which may then result in reduced donor assistance. Whether and when this may happen is hard to predict.

Another concern expressed by several respondents is that the implementation of programmes that rely heavily on external funding may become “unbalanced”. They

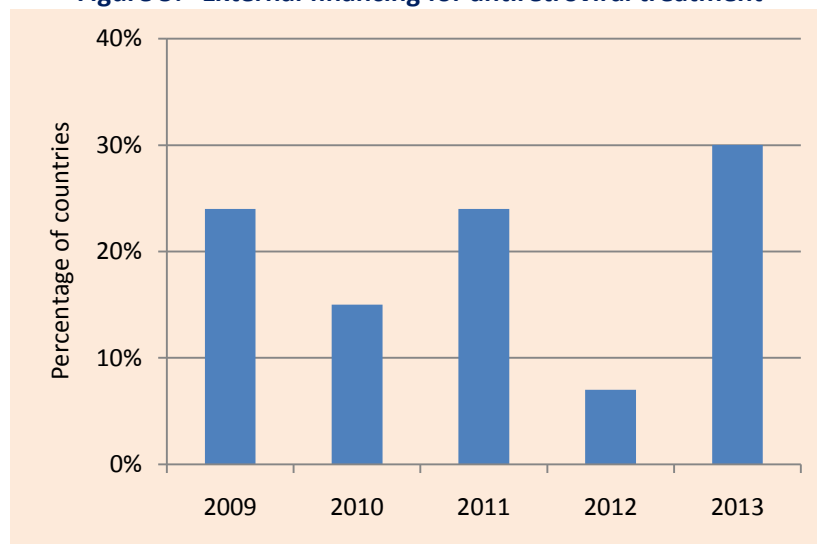
²⁴ At the time the survey was conducted (March 2009), the severity of the crisis for Latin American countries was not fully apparent. Recent projections (April 2009) suggest that the decline in the GDP growth rate for nearly all Latin American countries covered by the survey will range from -5% to -8.5% in 2009.

²⁵ This is illustrated by the successive downward revisions in IMF forecasts for the world economy. Since November 2008, the growth forecast has been revised three times, with the latest one (April 2009) showing an expected contraction of the world economy by 1.3% in 2009.

note that while some things will continue to be funded by external aid, government budget funding for other equally important components may be cut. This could include, for instance, transport to deliver drugs, treatment of opportunistic infections and sexually transmitted infections, prevention interventions, etc.

Short-term versus long-term financing. Programmes are particularly at risk in countries which have firm commitments of funding only for the immediate future. Based on the information provided by respondents, this is the case in 46 countries, and 16 respondents expect external financing to affect the pace at which access to antiretroviral treatment can be increased. Twenty five per cent of respondents say that financing from PEPFAR or the Global Fund will expire in 2009 and another 15% that it will end in 2010 (Figure 5). This group is concerned that future financing will be cut (82% of these respondents expect reductions in financing to affect treatment access).

Figure 5: External financing for antiretroviral treatment



Source: UNAIDS/WHO/World Bank survey of 71 countries.

Longer-term financing could provide better sustainability of programmes. However, only 17 countries (30% of the total) have guaranteed financing that covers five years or more. In most cases, the guaranteed funding will ensure antiretroviral treatment to people already on treatment, but not necessarily be enough to expand treatment coverage, and even less to reach universal access.

The uncertainty concerning the extent to which external assistance might be affected and the likely duration of the crisis creates a dilemma for countries. One scenario might be a slowdown in external assistance over the short term only. If so, countries should adopt measures that can be reversed easily once external funding resumes its upward trend. A more lengthy and sustained decrease in external funding would require longer-term and lasting measures to offset the effects of the crisis on AIDS programmes. With currently no clear indications of which scenario is more likely, contingency planning and continued monitoring of the evolving global and national situation is critical. Ethiopia is reportedly developing policy options for two scenarios—constant and reduced external assistance.

Countries' capacity to respond

A standard policy recommendation is for governments to pursue a countercyclical fiscal policy to offset variations in external aid. Thanks to previous efforts to improve their macroeconomic situation, many developing countries have substantially reduced their fiscal deficit and are in a position to increase social spending.

For countries faced with declining external funding for AIDS, the sustainability of their AIDS programmes depends on (i) their capacity to increase their domestic expenditures and (ii) their institutional capacity to reallocate and reprioritize expenditures in the context of a shrinking budget. Do countries have this capacity? To answer this question, 21 countries in which respondents expect an effect on the AIDS programme in the near future²⁶ were ranked according to their budgetary deficit and the quality of their public administration.

The size of the budget deficit indicates the extent to which developing countries could offset shortfalls in external assistance for AIDS using their own resources. This "fiscal capacity" was rated according to the size of the budgetary deficit as a percentage of GDP in 2008. As a measure of "institutional capacity" to allocate budgets well and spend them efficiently, ratings for the quality of the public sector management and institutions were taken from the World Bank Country Policy and Institutional Assessment for 2008 (Box 6).²⁷

Box 6: Country Policy and Institutional Assessments (CPIA) by the World Bank

The World Bank initiated country assessments in the late 1970s to help guide the allocation of IDA lending resources. The CPIA consists of a set of criteria for different policy and institutional dimensions of an effective poverty reduction and growth strategy. To strengthen comparability across countries, there is detailed guidance and careful reviews of the ratings. First, a sample of countries, selected to represent all regions and income levels, are rated and reviewed carefully. These are available as benchmarks. Then, for each country eligible to borrow from the World Bank, ratings are provided by country teams. The ratings are reviewed across each region and in a Bank-wide review process.

The 16 CPIA criteria are grouped into four clusters: Economic Management, Structural Policies, Policies for Social Inclusion and Equity, and Public Sector Management and Institutions. This last group includes criteria for the quality of public administration that assess: (a) policy coordination and responsiveness; (b) service delivery and operational efficiency; (c) merit and ethics; and (d) pay adequacy and management of the wage bill. Countries were classified in three groups: low, medium and high.

A description of the CPIA and the ratings are available on the website of the World Bank: <http://web.worldbank.org/wbsite/external/topics/environment/extdatasta/0,,contentMDK:21115900~menuPK:2935553~pagePK:64168445~piPK:64168309~theSitePK:2875751,00.html>

²⁶ Data were not available for one of the 22 countries in which respondents expect an impact.

²⁷ The ratings are assessed each year and published for countries eligible for IDA credits (concessional, long-term loans that do not carry an interest rate). See Box 6 for more information.

The assessment of fiscal and institutional capacity is summarized in Table 2. Capacity shortfalls suggest a role for financial and/or technical assistance. The main conclusions are as follows:

- **Eleven countries may require an assistance package combining financial and technical assistance** (they are shown in the red box highlighted in Table 2). These countries are rated low or medium for both fiscal and institutional capacity. In view of their high budget deficit, these countries are likely to need additional financial assistance to sustain and expand antiretroviral treatment. In addition, technical assistance may help them to allocate funding better.
- **Five countries may need financial assistance only** (they are located in the two cells underneath the red area). While they have low to medium fiscal policy ratings, they have high institutional capacity. These countries are in a much better position to allocate and use funds without technical assistance.
- **Five countries may need technical assistance only** (they are in the column to the right of the red box). Their fiscal policy is highly rated, which suggests that these countries have the domestic resources to offset shortfalls in external assistance. However, in view of their low to medium institutional ratings, they may need technical assistance.

Table 2: Affected countries' ratings of fiscal and institutional capacity

		<i>Fiscal capacity ratings</i>			
		Low	Medium	High	Total
<i>Ratings of the quality of public</i>	Low	3		3	6
	Medium	5	3	2	10
	High	1	4	0	5
	Total	9	7	5	21

Notes: The institutional capacity classification is based on the indicator entitled Public Sector Management and Institutions that is part of the World Bank Country Policy and Institutional Assessment. Countries were classified in three categories depending on the value of the indicator for 2008, as follows:

Low: rating below 3.

Medium: rating between 3 and 3.5.

High: rating above 3.6.

Fiscal capacity ratings are based on the countries' budgetary deficit as a percentage of GDP as follows:

Low rating: less than -2% of GDP.

Medium rating: -2.1 % to +1% of GDP.

High rating: over 1.1% of GDP.

Overall, there is a need for financial assistance and/or technical assistance. Based on the classification of Table 2, 16 countries may need financial assistance to sustain

their planned scaling-up of treatment access (the countries in the first two columns of Table 2, with low or medium fiscal capacity). Similarly, 16 countries may need technical assistance (countries with low or medium institutional capacity—the first two rows of Table 2).

What would this financial and technical assistance consist of? An indication is provided by survey respondents' comments, summarized in Box 7. For countries with uncertain or falling programme funding, respondents suggest that bridge financing might be required. Respondents' requests for technical assistance are mainly directed at rationalizing the procurement of drugs, avoiding interruptions in supplies and obtaining lower prices through regional procurement. Respondents also mention the need for advice on resource mobilization and to assist governments in improving health systems and using resources more efficiently.

Box 7: Types of assistance needed, as identified in the survey

Funding:

- Provide emergency mechanisms to avoid interruption of drug supplies;
- Identify potential sources of additional funding;
- Assist in developing a resource mobilization plan.

Better use of resources:

- Explore ways to integrate activities to reduce costs and increase synergy from the available resources;
- Advise governments where resources would have the highest impact;
- Advise and support the ministry of health to strengthen health systems and overall care delivery.

Sustaining and expanding access:

- Provide technical assistance for expanding interventions;
- Establish a plan for ensuring the financial sustainability of antiretroviral treatment over the medium to long term.

Procurement of antiretroviral drugs:

- Establish a regional framework for negotiating drug prices;
- Assist countries in forecasting national demand for antiretroviral drugs and other essential products, determining the optimal procurement size and timing.

Implications: innovation and action

The global economic crisis has the potential to affect the lives of 3.4 million people on antiretroviral treatment, another 7 million people who also need treatment but don't have access to it and others who will need treatment in the future. In addition, there is a strong risk that prevention programmes for populations at higher risk will be cut. This would increase the numbers of new infections and people who need treatment in the future, imposing higher future costs.

The international community and developing countries clearly want to **avoid backsliding on progress towards universal access**. As reported in the 2008 Report on the Global AIDS Epidemic,²⁸ AIDS-related deaths have fallen significantly globally with the remarkable expansion in prevention and treatment access in recent years. But the huge backlog of people who urgently need treatment continues to grow. Many countries will require additional support and it seems likely that the degree of aid dependence for HIV programmes is set to increase in the short term.

A long-term view of the potential costs for the global HIV response must be adopted as we try to respond to the immediate challenges. An important lesson learned during previous crises is that cuts in core social development spending have long-term effects. Responding to immediate fiscal pressure by reducing spending on HIV treatment and prevention will reverse recent gains and require high-cost offsetting measures over the longer term.

Meeting these challenges will require innovative thinking and action by governments and external and national development partners. **A core set of urgent interventions might include the following:**

Address urgent funding gaps:

- For countries with high reliance on dedicated external funding, national authorities and partners could identify impending cash-flow interruptions and provide bridge financing that, at the least, prevents treatment interruptions.
- For countries receiving emergency budget support, an appropriate base level of funding for HIV could be identified and included as part of the social protection package funded by the emergency financial assistance.

Reduce the risk of treatment interruption:

- A simple early-warning system might be established to track and minimize treatment interruptions. Devising a mechanism through which countries could quickly access short-term emergency drug supplies could be extremely helpful.

²⁸ <http://www.unaids.org/en/KnowledgeCentre/HIVData/GlobalReport/2008/>.

- Assisting countries to strengthen their ability to forecast future drug demand and treatment programme costs and to procure efficiently would help prevent stock-outs of drugs and other essential health supplies.
- The survey conducted in March 2009 and discussed in this paper could be repeated periodically to monitor country situations and identify vulnerable treatment programmes.

Strengthen programme efficiency and cost-effectiveness:

- Countries should scrutinize their AIDS programmes, especially activities absorbing large amounts of funding, to identify where efficiency gains and/or savings could be made.
- Countries facing budget cuts need to identify areas where cuts might have the least impact, especially in HIV prevention.
- Development partners can step-up efforts to assist countries to better prioritize resource allocations across prevention and treatment programmes and to focus on evidence-informed, results-driven programmes. This includes taking advantage of synergies and efficiencies that may be possible by better integrating services.

Protect complementary inputs and interventions:

- There is a high risk that while antiretroviral drugs would continue to be funded other critical interventions (such as salaries and drugs to treat opportunistic infections and sexually transmitted infections, etc.) would be cut due to a lack of earmarked funding. Critical to protecting people's health will be the ability of governments to ensure the delivery of core health services, including HIV and TB treatment and effective HIV prevention services.
- Legal and social programmes to reduce stigma and discrimination and gender inequality are vital elements of an HIV response, with potentially large additional benefits. If well implemented, they represent good value for money.
- A systematic approach to reviewing current AIDS funding, programme costs and choices in revising programmes in light of the economic crisis²⁹ will help guide careful decisions based on identifying the top priority interventions that must be sustained during this period of constrained resources.

Protect health systems:

If funding for AIDS treatment is maintained but domestic health budgets are cut, the delivery of treatment services for HIV and other illnesses will be compromised. To alleviate this risk, technical partners are intensifying assistance on effective planning and management of health services delivery, human resources and drugs and other

²⁹ As described in the draft note, "Financial Crisis Impact Assessment Tool for HIV/AIDS — FinCIAT", 28 May 2009, available at: www.worldbank.org/asap > Tools.

essential medical supplies. Well-designed AIDS programmes can help to strengthen health systems. Positive impacts can be achieved in many areas, including human resources, laboratory infrastructure and supply chains. Appropriate measures need to be taken to increase these broader benefits.

Plan for an uncertain environment:

- The uncertainty about how long the global crisis will last calls for contingency planning (developing alternative scenarios). Contingency plans could consider changes that could be made to ensure continued access to treatment, realistic expansion plans and maintaining the most effective, highest priority prevention activities under alternative potential funding scenarios.
- In addition, donor agencies need to support countries in a deliberate effort to improve the long-term sustainability of HIV services. In most cases, this calls for ensuring access to longer-term financial assistance than is currently the case, which will reduce uncertainty and make planning easier. This could be part of a broader effort by countries to develop health financing strategies (including for HIV prevention) that include sources of finance that can be sustained over the long term.

Strengthen coordination of technical advice:

In an environment of sustained uncertainty, policy-makers face difficult challenges in setting priorities and maximizing the development impact of their spending. It is imperative that the global community acts within a coordinated framework of analysis and advice so that countries do not receive multiple or conflicting assessments and recommendations.

References

- Bisson GP, Gross R, Bellamy S, Chittams J, Hislop M, Regensberg L, Frank I, Maartens G, Nachega JB. Pharmacy refill adherence compared with cd4 count changes for monitoring HIV-Infected adults on antiretroviral therapy. *PLoS Med*, 2008; 5:e-109.
- Gillespie S, Jere P, Msuyo J, Frimie, S. Food Prices and the HIV Response: Findings from Rapid Regional Assessments in Eastern and Southern Africa. RENEWAL, IFPRI. March 2008.
- Granich RM, Gilks CF, Dye C, De Cock KM, Williams BG. Universal voluntary HIV testing with immediate antiretroviral therapy as a strategy for elimination of HIV transmission: a mathematical model. *The Lancet*, 2009; 373 (9657):48-57.
- International Monetary Fund. *World Economic Outlook: Crisis and Recovery*. Washington, DC: IMF, 2009.
- Oyugi JH, Byakika-Tusiime J, Ragland K, Laeyendecker O, Mugerwa R, Kityo C, Mugenyi P, Quinn TC, Bangsberg DR. Treatment interruptions predict resistance in HIV-positive individuals purchasing fixed-dose combination antiretroviral therapy in Kampala, Uganda. *AIDS*, 11-5-2007; 21:965-971.
- Parietti JJ, Das-Douglas M, Massari V, Guzman D, Deeks SG, Verdon R, Bangsberg DR. Not all missed doses are the same: sustained NNRTI treatment interruptions predict HIV rebound at low-to-moderate adherence levels. *PLoS ONE*, 2008;3:e2783.
- Parietti JJ, Massari V, Descamps D, Vabret A, Bouvet E, Larouze B, Verdon R. Predictors of virologic failure and resistance in HIV-infected patients treated with nevirapine- or efavirenz-based antiretroviral therapy. *Clin Infect Dis*, 1-5-2004; 38:1311-1316.
- Stover J, et al. (2006). The global impact of scaling up HIV/AIDS prevention programs in low- and middle-income countries. *Science*. DOI: 10.1126/Science 1121176.
- UNAIDS. *Report on the Global AIDS Epidemic*. Geneva: UNAIDS, 2008.
- Venteloua B, Moatti JP, Videau Y, Kazatchkine M. Time is costly: modelling the macroeconomic impact of scaling-up antiretroviral treatment in sub-Saharan Africa. *AIDS* 2008, 22:107–113.
- World Bank. *Thailand's Response to AIDS: Building on Success, Confronting the Future*. Washington, DC: World Bank, 2001.
- World Bank. *World Development Indicators 2008*. Washington, DC: World Bank, 2008.
- World Bank. *Financial Crisis Impact Assessment Tool for HIV/AIDS — FinCIAT*, 28 May 2009, available at: www.worldbank.org/asap > Tools.

Notes

Notes



The Global Economic Crisis
and HIV Prevention and Treatment Programmes:
Vulnerabilities and Impact

UNAIDS
20 AVENUE APPIA
CH-1211 GENEVA 27
SWITZERLAND

Tel.: (+41) 22 791 36 66
Fax: (+41) 22 791 48 35
e-mail: distribution@unaids.org

www.unaids.org

The World Bank
Global HIV/AIDS Program

Tel: +1 202 458 4946
Fax: +1 202 522 1252
e-mail: wbglobalHIVAIDS@worldbank.org

www.worldbank.org/AIDS