



APRIL 2009

TECHNICAL EVALUATION REFERENCE GROUP SUMMARY PAPER

STUDY AREA 3

HEALTH IMPACT OF SCALING UP AGAINST HIV, TUBERCULOSIS AND MALARIA:
EVALUATION OF THE CURRENT SITUATION AND TRENDS IN 18 COUNTRIES



Investing in our future

The Global Fund

To Fight AIDS, Tuberculosis and Malaria

THE TECHNICAL EVALUATION REFERENCE GROUP (TERG) is an advisory body providing independent assessment and advice to the Board of the Global Fund to Fight AIDS, Tuberculosis and Malaria on issues which it determines require Board attention.

The Board also directs the TERG to examine specific programmatic aspects of the Global Fund, as appropriate. The TERG advises the Global Fund Secretariat on evaluation approaches and practices, independence, reporting procedures and other technical and managerial aspects of monitoring and evaluation at all levels.

Members of the TERG are nominated and confirmed by the Board of the Global Fund. Membership of the TERG is drawn from a range of stakeholders, including practitioners, research institutions, academics, donor and recipient countries, and nongovernmental organizations.

Members of the TERG are listed in Annex A.

I. INTRODUCTION

The Five-Year Evaluation originated from a Board decision in 2003 to review the Global Fund's overall performance against its goals and principles after at least one full grant cycle had been completed. In November 2006, the Global Fund Board approved the launch of this comprehensive evaluation under the independent oversight of the Technical

Study Area 1 – Organizational efficiency and effectiveness of the Global Fund

Study Area 2 – Effectiveness of the Global Fund partner environment

Study Area 3 – Impact on the three diseases

Evaluation Reference Group (TERG). The Five-Year Evaluation has been carried out by independent consultants and is organized around three study areas.

Study Area 1 of the Five-Year Evaluation was completed in November 2007 and examined the organizational efficiency and effectiveness of the Global Fund, its progress to date and critical areas for improvement. Study Area 2, which examined the Global Fund's partner environment in 16 countries and at the global level, was presented to the Board in November 2008. Study Area 3 - the Health Impact Evaluation - involves the examination of the collective impact on the burden of AIDS, tuberculosis (TB) and malaria in 18 countries, and is the most extensive component of the Five-Year Evaluation. The Study Area 3 consortium was led by Macro International and included the African Population and Health Research Center, Harvard University School of Public Health, Johns Hopkins Bloomberg School of Public Health and the World Health Organization.

This paper provides a summary of the process and products of the Health Impact Evaluation and the TERG's assessment of this study. First the original study design is described, followed by the main findings and recommendations as presented by the independent evaluators. In the next section, the TERG assessment analyzes the extent to which the evaluation responds to the original questions posed. Finally, the TERG highlights several key issues and priorities for the Board's consideration.

II. STUDY OVERVIEW

Objectives

The Global Fund has made an explicit commitment to making an impact on the three diseases. The overall objective of the Health Impact Evaluation is thus to comprehensively assess, in selected countries, the collective impact that the Global Fund and other international and national partners have achieved on reducing the disease burden of AIDS, TB and malaria. Additional value-added outcomes of the evaluation include a set of actionable recommendations for strengthening health information systems; and a *Model Evaluation Platform* which comprises a set of standard evaluation tools and processes that can be employed by countries for future assessments of impact on the three diseases.

Guiding Principles

The design and implementation of the Health Impact Evaluation involved extensive consultation and collaboration with countries, expert groups, global initiatives and technical partners as well as Global Fund governance and advisory bodies. In its initial discussion of the Study Area 3 evaluation proposal, the Global Fund Board endorsed and expanded the TERG proposals on the study objectives and process, and agreed on the guiding principles shown below.

Contribution – not attribution

The Health Impact Evaluation is intended to assess the collective scale-up of prevention and treatment activities by all relevant national and international partners and the reduction in overall disease burden. Direct attribution of Global Fund-specific investments to reductions in disease burden is not a focus of this evaluation. Where possible, however, the Global Fund's contributions relative to overall investments, and to other major contributors, are to be mapped and assessed. This approach recognizes that in many countries the Global Fund is not the single major international donor and any discernable impact is accomplished through the joint efforts of multiple national and international partners.

Learning and capacity building

The evaluation is designed not only as an external audit of performance, but also to support learning and capacity building in close partnership with countries. Capacity building efforts must focus on improving countries' existing data collection and analysis mechanisms or building these mechanisms where they do not exist.

Country-driven processes

The evaluation supports the principles of coordinated program monitoring and evaluation processes and all efforts are to be made to avoid duplication and fragmentation in order to promote national monitoring and evaluation goals. Further, the evaluation must balance the principle of country ownership with the need for independence and maximize the use of existing data and information systems.

Transparency

A key priority of the evaluation is to facilitate and encourage further use of data by a wide variety of stakeholders external to the evaluation. To support further analyses conducted by various stakeholders, findings must be made available for public use.

Evaluation Design

Since its creation in 2002, the Global Fund has become the single largest international funder of TB and malaria programs, and the second-largest funder of HIV/AIDS programs. Such massive scaling up efforts by the international community have been founded on the premise that the mobilization and distribution of new funding would significantly increase the availability and uptake of effective interventions and thus help halt the spread of the three diseases. The fundamental evaluation question is therefore: *did intervention coverage increase and did incidence, prevalence and mortality improve as a result of the scaling up?*

Scope and Scale

The Health Impact Evaluation focuses on the national disease control programs for HIV/AIDS, TB and malaria in 20 countries and seeks to assess overall progress toward the Millennium Development Goals. This study is not intended to focus on individual grants. The Health Impact Evaluation report differs from Global Fund-specific publications such as the Global Fund Results Report as it does not consider case studies or specific research study results (e.g., cohort studies). These types of studies are useful and informative in understanding program performance and improving effectiveness. However, their findings can be difficult to generalize to the national level as their results may be based on unique or idiosyncratic settings. Together, the two approaches are mutually supportive in order to assess and improve programs.

Timing

In the initial stages of designing the Health Impact Evaluation, the TERG recognized that Global Fund investments are relatively young and that any potential impact of Global Fund-supported activities will depend on the amount of funds disbursed and the length of time since grant implementation at country level. Nonetheless, the Board considered it appropriate to make a substantial investment in such an evaluation, as the Global Fund's ambitious goals and large-scale investments have created high expectations for rapid results. When the study was planned in 2006, it was estimated that by the end of the year, 236 grants would have gone through the Phase 2 decision process, suggesting that data would be available for an external evaluation. As an organization committed to learning and transparency, the Global Fund prioritized this early evaluation in order to reveal and address needs for improvements in its operations at the earliest stage possible.

Country Selection

The Health Impact Evaluation was intended to be carried out in a large number of countries in order to obtain a broad view of progress in different country contexts, making use of a combination of existing and new data. The TERG engaged in a thorough and purposeful process of country selection, guided by five main selection criteria, including: regional and disease balance, availability of existing impact and baseline data, magnitude of Global Fund disbursements, duration of programming and opportunities for harmonization with partners. Based on these criteria and a more subjective assessment of countries' readiness to participate, the TERG selected 12 countries in which the evaluation would be undertaken largely on the basis of already existing information (secondary data analysis countries), and a further eight countries in which extensive collection of new data was planned (primary data analysis countries). The sample was chosen to ensure relatively quick data production and to maximize the opportunity for showing impact (as defined by high level of disbursement, good grant performance and significant grant duration).

Primary Data Analysis Countries:

Burkina Faso, Cambodia, Ethiopia, Haiti, Malawi, Peru, Tanzania and Zambia

Secondary Data Analysis Countries:

Benin, Burundi, DR Congo, Ghana, India, Kyrgyz Republic, Moldova, Mozambique, Nepal, Rwanda, South Africa and Viet Nam

Of the 20 countries invited to participate in the impact evaluation, a total of 18 agreed to engage in this comprehensive study. Due to various reasons, India, Nepal and South Africa elected not to participate. South Africa was replaced by Lesotho, but as India and Nepal opted out at a late stage, they could not be replaced.

Figure 1, below, presents both the magnitude of Global Fund disbursements in these countries and the time elapsed between the first grant start dates and January 2008 - the beginning of country-level data collection. This table confirms that - at least for some countries - observed effects of scaling-up should be expected.

Figure 1 – Status of Global Fund disbursements in Study Area 3 countries

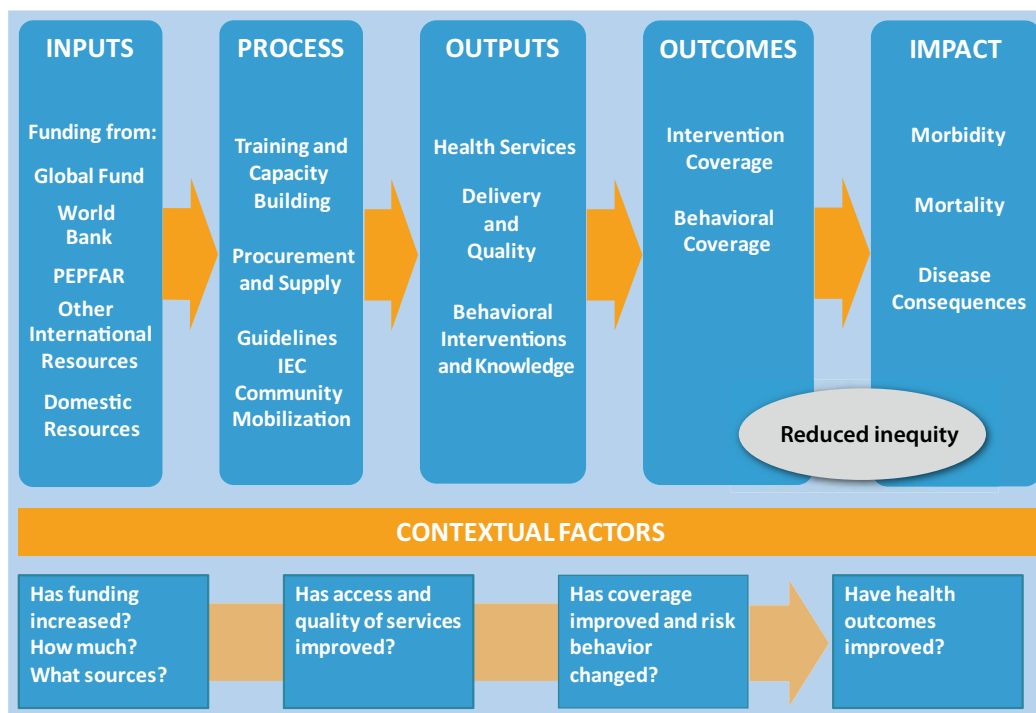
Note: darker colors indicate larger amount of funds disbursed and longer periods of grant implementation before January 2008

* As of January 2008, the beginning of Study Area 3 country-level data collection

Country	Population (M)	Global Fund Grants in Health Impact Evaluation Countries*									
		HIV		HIV/TB		TB		Malaria		Health systems strengthening	
		Funds Disbursed (US\$ M)	Time Elapsed (yrs)	Funds Disbursed (US\$ M)	Time Elapsed (yrs)	Funds Disbursed (US\$ M)	Time Elapsed (yrs)	Funds Disbursed (US\$ M)	Time Elapsed (yrs)	Funds Disbursed (US\$ M)	Time Elapsed (yrs)
Benin	5.2	25.4	4.2			4.7	4.2	4.8	4.6		
Burkina Faso	13.9	15.7	3.9			8.8	3.0	7.1	3.9		
Burundi	7.9	18.0	4.6			2.3	2.6	19.4	4.1		
Cambodia	14	50.0	4.6			7.7	3.9	15.3	3.9	1.1	1.2
DR Congo	58.7	54.4	3.1			20.8	4.4	31.7	3.1		
Ethiopia	79	270.0	3.9			20.5	4.3	125.5	4.3		
Ghana	22.5	45.4	4.9			19.2	4.9	37.2	4.3		
Haiti	9.3	76.2	4.8			9.0	3.4	9.3	3.4		
Kyrgyz Republic	5.2	12.2	3.8			3.8	4.1	1.7	1.6		
Lesotho	2	20.3	3.9			2.8	3.9				
Malawi	13.2	129.2	4.6					19.4	1.9	2.9	0.5
Moldova	3.9	3.3	0.0	11.7	4.6	2.7	0.2				
Mozambique	20.5	50.4	3.4			7.2	3.0	24.5	3.0		
Peru	27.3	28.5	4.0			28.2	4.0				
Rwanda	9.2	58.0	3.4	14.6	4.6	10.0	3.0	45.8	3.2	14.3	2.0
Tanzania (incl. Zanzibar)	38.6	104.0	4.1	34.5	3.0	8.7	0.2	77.9	4.8		
Viet Nam	85	11.6	3.9			5.4	3.0	16.9	3.0		
Zambia	11.5	96.8	4.4			29.1	4.4	46.6	4.3		
TOTAL		1069.4		60.8		190.9		483.1		18.3	

Evaluation Framework

The overall framework for the evaluation is aligned with the International Health Partnership common monitoring and evaluation framework as shown in Figure 2. The underlying logic follows a stepwise approach and begins with tracking Global Fund investments and other international and domestic resources to assess how much additional funding has become available, then tracking expenditures by disease and assessing the specific contribution of the Global Fund. Increased resources should contribute to better availability of services, better coverage of interventions and higher impact. The impact of increased resources depends not only on the quality and efficacy of interventions but also on contextual factors. In order to assess the effect of Global Fund contributions, this study makes a comparison of trends (where data is available) before and after 2003-2004, when Global Fund-supported programs began to scale up in earnest.

Figure 2 - Health Impact Evaluation Framework

Processes at the country level

In line with the guiding principle of ensuring country ownership of the evaluation, country-level Impact Evaluation Task Forces were established in 18 countries, with broad representation from relevant local institutions, including representatives from Ministries of Health, civil society, Country Coordinating Mechanisms and donors. These country-level task forces provided oversight in approving the country evaluation work plans and budgets, and reviewing the draft and final country reports.

In all 18 countries, findings were primarily derived from secondary analysis of existing data. In the primary data analysis countries, evaluation efforts involved significant investment in capacity building and filling information gaps through additional primary data collection at the sub-national level. It was decided at an early stage that countries' evaluation efforts should use the same data collection tools wherever possible to maximize comparability across countries over time, and to permit data collection in a large number of countries in a relatively short time period. In accordance with the guiding principle of building country capacity, all additional data collection activities were subcontracted to local institutions, with an average total budget per country of US\$ 550,000. Studies in secondary data analysis countries were based mainly on analysis of existing data and required a lower level of investment, with an average budget per country of US\$ 75,000.

Tools & Methods

The study methodology was designed to carefully document the trends in the three diseases, including mortality and morbidity. Further, the study design required that these trends be interpreted against trends in availability, quality and coverage of interventions and the financial inputs needed for interventions and programs.

The following standardized data collection tools were employed:

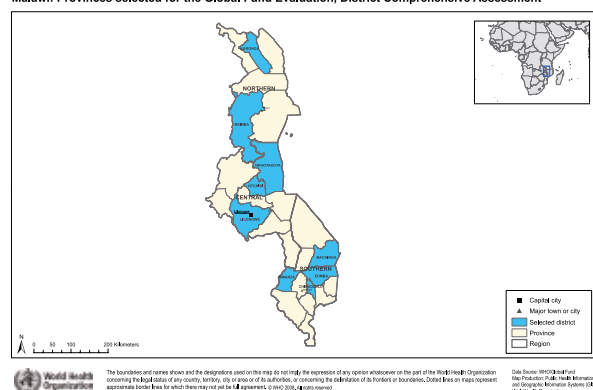
- Data abstraction sheets to collect existing data from past surveys or existing studies in all countries;
- Data abstraction sheets for the review of service records in all countries;
- National Health Accounts in five countries;
- District Comprehensive Assessments - a multi-component assessment tool for use at the district level, which includes a facility survey, household survey, treatment follow-up studies, community-based organization mapping and facility record reviews in the eight primary data collection countries.

Most of the tools were based on existing questionnaires. For example, the household questionnaire was based on the Demographic and Health Survey and facility surveys were based on the Service Provision Assessment questionnaire. Indicators collected through the data abstraction sheets included internationally-agreed indicators (as defined by the monitoring and evaluation reference groups) for the three diseases.

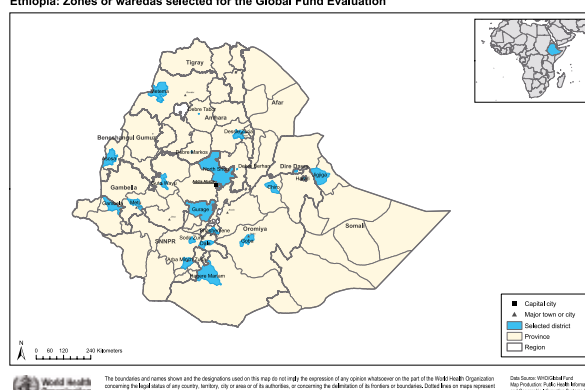
In the eight countries in which additional data collection was undertaken, District Comprehensive Assessments were conducted in between six and 35 districts. In total, District Comprehensive Assessments were conducted in 115 districts. Examples of districts in which District Comprehensive Assessments were conducted are shown in Figure 3, below. In some countries, Impact Evaluation Task Force members successfully leveraged in additional funds to cover more districts than initially scheduled (Burkina Faso, Ethiopia, Haiti and Tanzania). A total of more than US\$ 1 million was leveraged through these efforts.

Figure 3. Examples of districts selected for the District Comprehensive Assessment

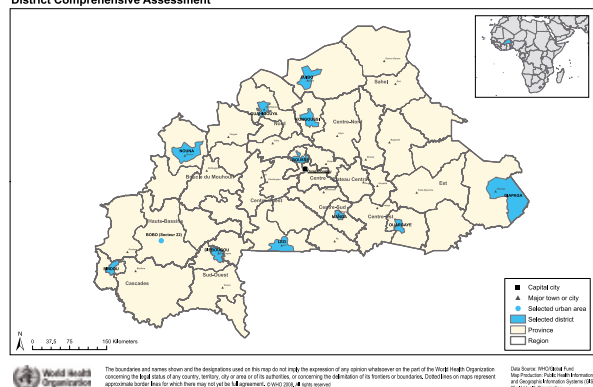
Malawi: Provinces selected for the Global Fund Evaluation, District Comprehensive Assessment



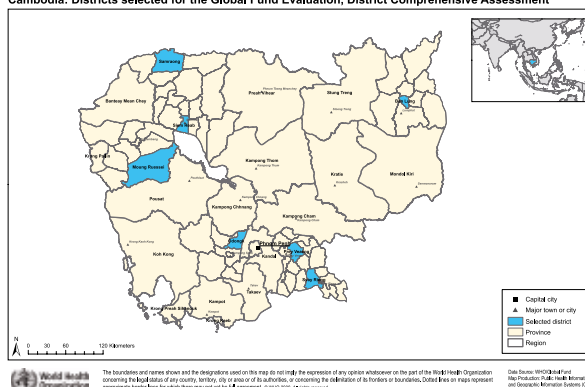
Ethiopia: Zones or woredas selected for the Global Fund Evaluation



Burkina Faso: Districts or urban areas selected for the Global Fund Evaluation, District Comprehensive Assessment



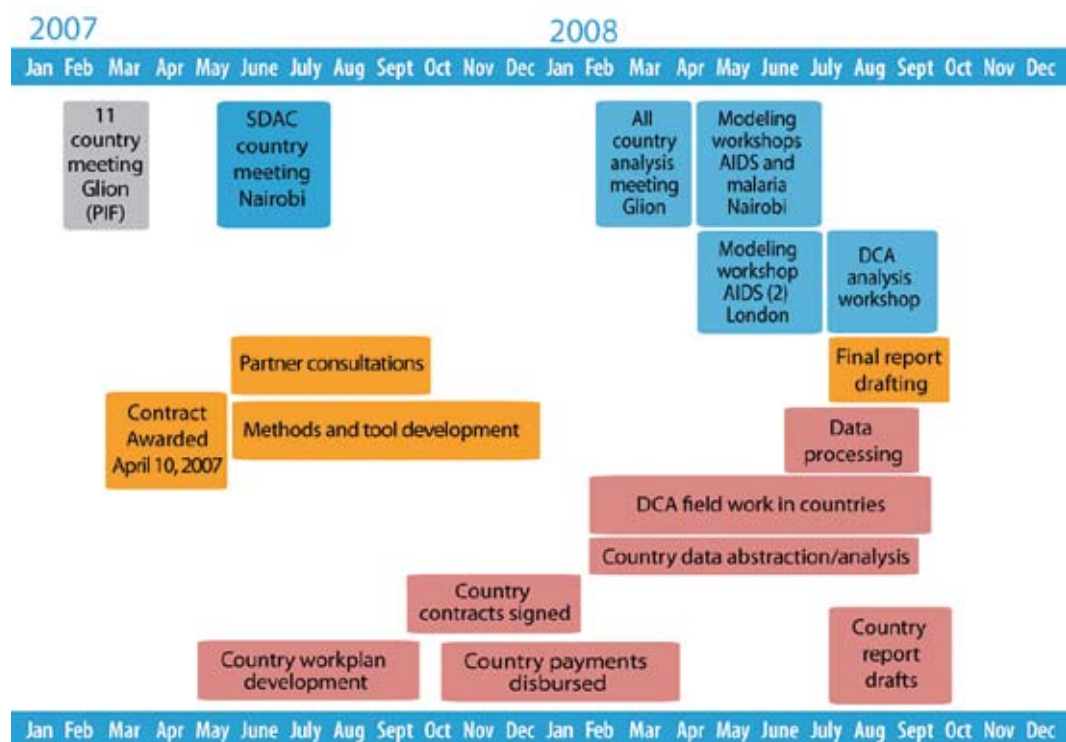
Cambodia: Districts selected for the Global Fund Evaluation, District Comprehensive Assessment



All data collection and analysis was carried out by local organizations and individuals, with technical assistance from the Health Impact Evaluation consortium. Country reports were developed by the local subcontractors in each country and were agreed and finalized with the Impact Evaluation Task Forces. The timeline for the study is shown in Figure 4.

Evaluation assistance from Macro was provided through regular e-mail exchanges, technical assistance at the country level and international data analysis workshops.

Figure 4. Timeline of the Health Impact Evaluation (January 2007 to November 2008)



Note: SDAC denotes secondary data analysis countries

III. EXTERNAL EVALUATION FINDINGS & RECOMMENDATIONS

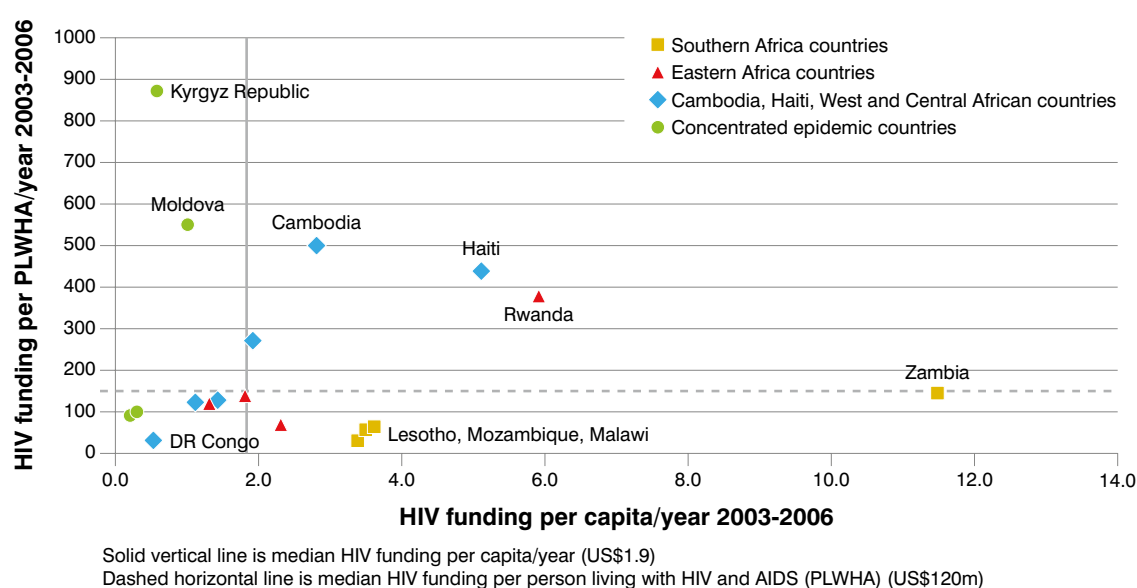
The following is a brief summary of the main findings and recommendations presented by the independent evaluators in the areas of HIV, TB, malaria, health information systems and health systems. Lastly, a short summary of lessons learned through the evaluation process is presented. These findings are elaborated in detail in the final report on the Health Impact Evaluation from Macro International.

1.0 Impact on HIV/AIDS

HIV continues to be a leading cause of ill health and mortality among adults in many countries, even though epidemic growth has halted for about a decade. Increases in international funding have been large, led by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) and the Global Fund. The findings show:

- HIV funding increased rapidly in the 18 evaluation study countries, with 18 percent coming from the Global Fund. There were differences in funding levels between countries and the relative predominance of HIV funding in national health spending, as shown in Figure 5.
- There has been a major expansion in access to services in all countries. However, district facility assessments in seven countries show that gaps in basic requirements - such as trained personnel, guidelines, medicines, and equipment - need to be addressed in order to ensure the provision of quality services.
- There have been dramatic increases in estimated coverage of antiretroviral (ARV) treatment and, to a lesser extent, in HIV testing and counseling and prevention of mother-to-child transmission (PMTCT) of HIV. In several instances, these increases tend to be larger in countries with higher levels of external funding.
- National surveys show reductions in HIV high-risk behaviors among men in the general population in most countries since 2000, with two countries providing evidence of changes after scaling up (2003). There is little evidence of large-scale changes in behaviors among the most at-risk populations (primarily because of a lack of comparable representative data to allow for an examination of trends).
- Some countries show evidence of a possible decline in HIV incidence rates among young people, while survival data among people on ARV treatment are generally impressive.
- Increased funding has led to better access to care, including rapid increases in intervention uptake and notable survival benefits through ARV treatment. Evidence of changes in HIV transmission is limited, mainly due to a lack of data, the complexity of the epidemiology, and the early timing of the evaluation study.

Figure 5. External HIV funding (constant 2006 US\$) per person living with HIV/AIDS and per capita, 2003-06 (annual average), by country



Recommendation 1.1 - Strengthening prevention programs

The Global Fund and its partners should reinforce prevention strategies tailored to the type of epidemic and local context and focus on the most cost-effective interventions. The Global Fund needs to ensure that the most effective set of preventive strategies are funded given the type of epidemic and local context, accompanied by appropriate investment in measuring results.

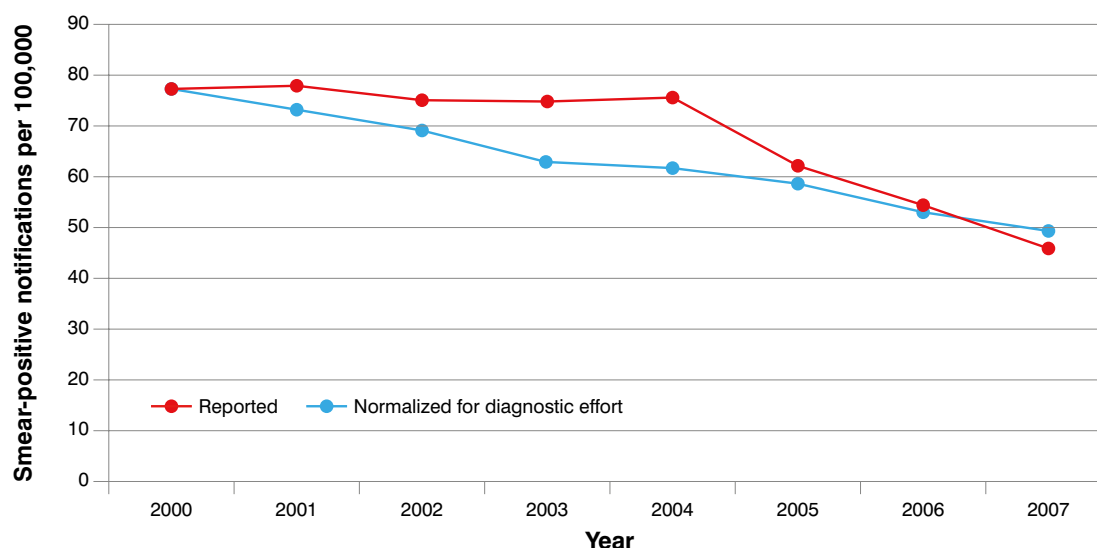
Recommendation 1.2 - Predictable funding and treatment

The Global Fund and its partners should provide predictable funding and support to reliable ARV drug supply and distribution systems in order to build upon and expand treatment-related investments in rural and most-at-risk populations.

2.0 Impact on tuberculosis

- Strengthening of the existing DOTS strategy is the focus of scaling up, with steady progress on treatment outcomes.
- Expenditures on TB increased in only half of the countries, and the Global Fund is responsible for 61 percent of external funding, with considerable variation between countries.
- There is widespread access to TB services, although there are no major increases since scaling up, and there is considerable scope for improving the quality of diagnostic and treatment services.
- TB notification rates are stable or declining in several countries (as shown in Figure 6) but the required supporting data on diagnostic intensity is often lacking.
- Positive trends in treatment success rates have continued in most countries, but there is little evidence of accelerated progress since 2003 and a modest association with funding levels and trends.

Figure 6. New smear-positive cases per 100,000 notified in Peru, 2000-2007, before and after adjusting for trends in diagnostic intensity



Recommendation 2.1 Predictable funding for tuberculosis programs

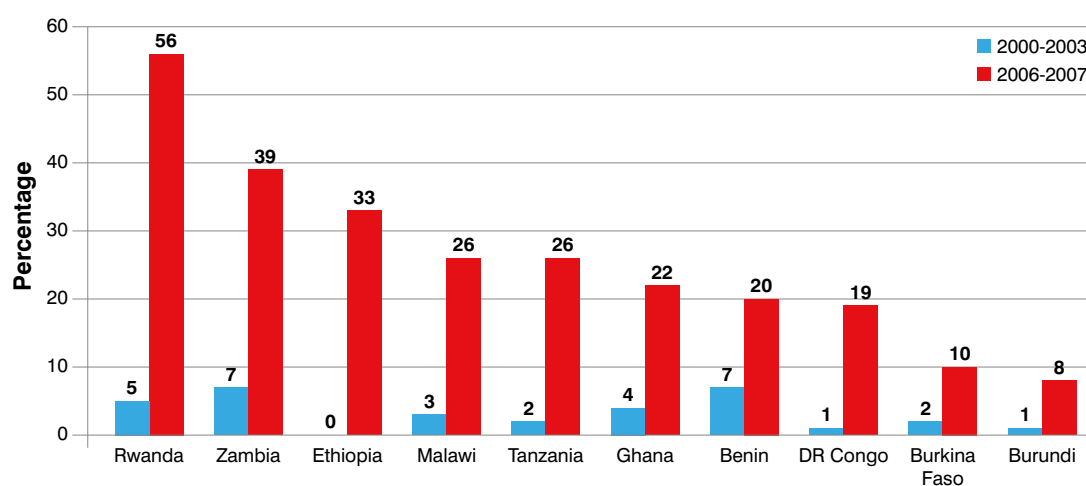
The Global Fund, as the most important donor of tuberculosis control programs at present, needs to find ways to ensure predictable multi-year funding to maintain quality programs, as other donors appear to have increasingly channeled their funding through the Global Fund.

3.0 Impact on malaria

A high disease burden has existed in Africa and parts of Asia with little progress for decades, but a new focused intervention strategy shows encouraging signs for successfully combating the disease. The findings show:

- There have been major increases in funding, led by the Global Fund, with large differences in levels of external funding between countries.
- Malaria diagnostic capacity remains suboptimal, and artemisinin-based combination therapy (ACT) availability is limited except in Zambia, and in large facilities in Ethiopia, and Malawi.
- In all countries, major progress has been made in coverage with insecticide-treated bed nets and intermittent preventive treatment of malaria during pregnancy (as shown in Figure 7) and local improvements in coverage with indoor residual spraying coverage. Progress in ACT treatment has been made in just one country.
- A few countries provide evidence of reductions in parasite prevalence and a potential decline in malaria-attributed child mortality.
- Coverage of new interventions has increased rapidly in many countries, mainly supported by the Global Fund in its initial years and multiple actors in more recent years, and has had a demonstrated health impact in a few countries.

Figure 7. Percentage of children under age five who slept under an insecticide-treated bed net during the last night, 2000-2003 and 2006-2008 national surveys



Recommendation 3.1 Potential for impact

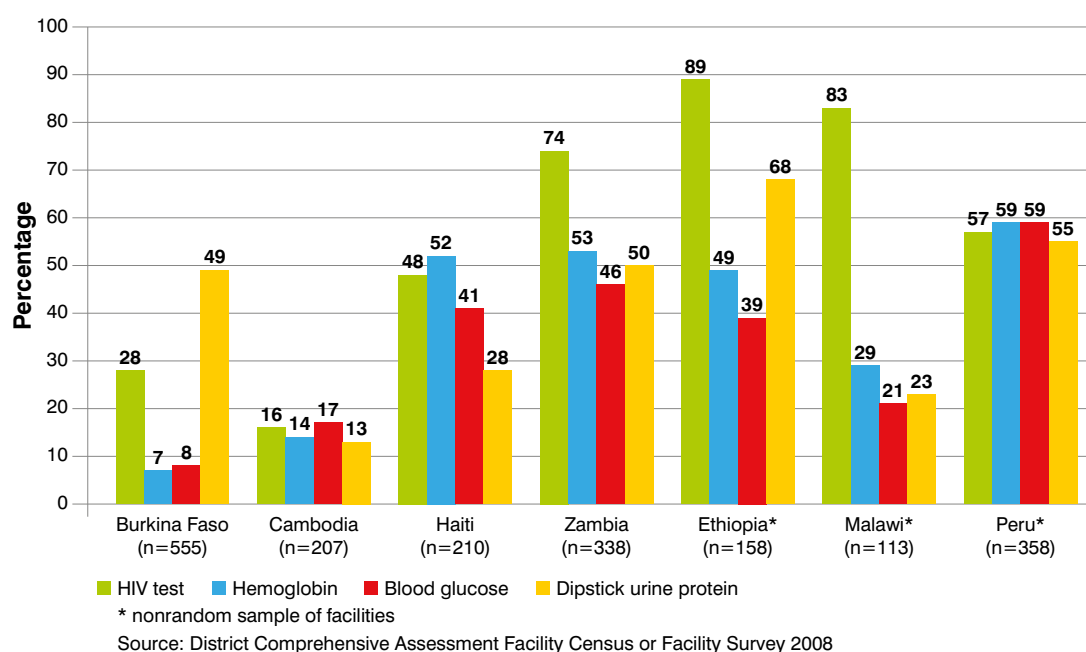
Accelerating grants for malaria control should be a priority, given the encouraging initial results from several countries and from research, particularly focusing on countries where other donors are less active and Global Fund grants can catalyze major changes.

4.0 Health systems and scaling up

There is much interest in determining whether scaling up HIV prevention and treatment efforts in particular have had an effect - positive or negative - on health systems and on other disease programs, but current research has provided little conclusive evidence either way. The evaluation findings show:

- In most countries, total external funding directed to HIV has increased in both absolute and relative terms; funding for maternal and child health has also increased in absolute terms.
- In general, there are about 1 to 1.5 health facilities per 10,000 people, with the government as the main provider. Intensive efforts to roll out HIV interventions involve the private sector and civil society, and the access gap between HIV and longer-standing health services appears to be closing rapidly.
- Health worker density is low in all districts, especially in rural areas. HIV scale-up has focused on districts with higher health worker densities.
- In many facilities there are serious deficiencies in terms of basic amenities, especially improved water supply and essential equipment. The situation is somewhat better in facilities that offer HIV services.
- There is inadequate availability of many essential medicines, especially for chronic adult diseases but also for childhood illnesses.
- Training intensity and guideline availability for HIV services is higher than for most other interventions.
- There are major gaps in the availability of diagnostics, but the HIV test is more commonly available than the anemia test even in low HIV prevalence countries, as shown in Figure 8.
- There is no evidence of adverse changes in coverage for maternal and child health interventions or in child mortality.

Figure 8. Median district percentage of surveyed health facilities with essential diagnostics, in countries with district comprehensive assessments in 2008



Recommendation 4.1 Address basic gaps in services

The major gaps in basic health service availability and readiness - which affect the quality of care for common health problems - will need to be addressed as part of scaling up against the three diseases by supporting a health system component of disease-specific grants and general health systems strengthening grants in a way that supports country health sector strategic plans.

5.0 Health Information Systems

Despite increased data collection for the three diseases, there are major data gaps and weak health information systems in countries that seriously limit the ability to evaluate progress. The evaluation findings show:

- Improved data availability on HIV/AIDS has resulted from investments in data sources, mainly through U.S. government support with a much smaller contribution from other donors. Nonetheless, data availability and quality continue to fall short of what is needed for sound evaluation.
- TB programs have a well-functioning clinic-based diagnosis and treatment reporting system in most countries, but major gaps exist for other types of data.
- Major progress has been made in monitoring intervention coverage and malaria morbidity through household surveys, but major gaps in malaria mortality and morbidity data impede the ability to evaluate the impact of malaria programming.
- Development partners are only partly addressing the causes of information gaps and often in a piecemeal way.
- Timely, complete and accurate data and statistics are the foundation of performance- or results-based disbursement. The evaluation study shows that this basis is, at best, weak.

Recommendation 5.1 Strengthening country health information systems

A more systematic investment and coordinated approach of all partners is urgently needed to strengthen country health information systems, which are the necessary basis for monitoring progress, performance-based funding and evaluation.

(a) Strengthening proposals to the Global Fund

The Global Fund and its partners should find ways in which it can strategically improve its support for strengthening country health information systems in a coordinated manner.

(b) Reorient HIV/AIDS monitoring and evaluation toward one system

The Global Fund and its partners should reorient investments in HIV/AIDS monitoring and evaluation toward strengthening country health information systems, thereby minimizing fragmentation and duplication and maximizing data quality and use for decision-making.

(c) Strengthen, expand and align TB monitoring efforts

The Global Fund and its partners should make a systematic effort to assist countries in strengthening their information systems for better program management and monitoring and evaluation to address major data gaps, including TB mortality and prevalence, service availability and quality and diagnostic effort.

(d) Systematic approach toward malaria monitoring and evaluation

The Global Fund and its partners should develop a more systematic approach to data collection and analysis for the monitoring and evaluation of malaria programs.

Recommendation 5.2 Performance-based funding

The Global Fund and its partners should consider immediate measures to improve data availability and quality to support its performance-based disbursement system, including more emphasis on results, better alignment with country information systems, and stronger validation mechanisms.

Recommendation 5.3 Country capacity building in health information

The Global Fund and its partners should redirect and increase their investments in monitoring and evaluation to strengthen country capacity, aiming at greater country institutional involvement and harmonized approaches, tools, and methods.

6.0 Lessons Learned

The evaluation study avoided the duplication of data collection, but the lack of integration with country health information plans limited its ability to more thoroughly evaluate impact.

Through workshops and technical assistance, the evaluation study significantly strengthened capacity to conduct evaluations, but systematic involvement of institutions and much larger investments are needed to make a difference.

Investments by the Global Fund and its partners in evaluation have been limited during the past years and are part of the reason why the evaluation questions can only be partially answered.

Recommendation 6.1 Improving evaluation of scaling up in the future

There is a need for more frequent evaluations that are planned with sufficient time to allow greater integration with country health information systems and the involvement of partners.

Recommendation 6.2 Annual series of country evaluations

The Global Fund and its partners should build on the evaluation study and continue to support evaluations of scale-up each year in a selected number of countries involving all relevant stakeholders with strong country institutional involvement.

IV. ASSESSMENT OF THE STUDY

Role of the Technical Evaluation Reference Group

The TERG undertook the oversight of this comprehensive Health Impact Evaluation in 18 countries over a two-year implementation period. This oversight function required multiple meetings with the leadership of the Evaluation Consortium in Geneva and the United States to hear accounts of both progress and problems. The TERG received regular written progress updates, reviewed frequent interim deliverables and directly observed data collection activities in a number of countries. In addition, TERG participated in two large multi-stakeholder meetings organized with country Impact Evaluation Task Force members and global level partners to discuss evaluation design, country work plans and sustainability. The TERG was responsible for reviewing and approving the basic design of the evaluation, the methodology, overall work plan for each country and analytical approach.

In order to preserve the independence of the evaluation, the involvement of the Global Fund Secretariat has been limited. Throughout the evaluation, the Global Fund Secretariat was kept fully informed as to progress and received interim products and the opportunity to address factual errors. A small team was dedicated to supporting the TERG and primarily facilitated meetings and assisted in reviewing materials. This small team maintained a dialogue with development partners interested in the Health Impact Evaluation. Through this initiative, US\$ 3.5 million in additional funding was committed from PEPFAR for further capacity building and dissemination activities.

Overall Quality Assessment

The TERG considers this ambitious Health Impact Evaluation to be unique compared to many other health sector evaluations in that the study focuses on the collective impact of the Global Fund and other national and international partners through a comprehensive assessment of country progress. The Health Impact Evaluation is not an evaluation specifically of Global Fund grants, but is instead an effort to assess the overall impact of all partners in scaling up the fight against AIDS, TB and malaria. The evaluation focuses on general progress in the battle against the three diseases rather than measuring the impact of a limited set of interventions. TERG finds that the implementation of the study closely followed the key guiding principles – including fostering country ownership and strengthening country capacity and systems. TERG considers that the independence of this external evaluation was respected, in that it was conducted by objective, independent external researchers.

The Health Impact Evaluation was exceptionally challenging from both a methodological and practical point of view. The overall opinion of the TERG is that the contractor has carried out the work in a professional manner and has addressed most questions posed in the original terms of reference. The report is informative, it verifies and provides solid evidence and contains a rich analysis, despite the constraints in data.

In total, US\$ 11.7 million was spent on the study. By far the largest part of the funding was used to cover the cost of local data collection activities (40 percent). The second largest proportion of the budget was used for technical assistance, comprising country visits and workshops (30 percent). Overall, about 85 percent of the total contract cost was spent on activities that directly benefitted the countries, through the provision of standard evaluation tools, financing of local costs, provision of technical assistance and support for report writing.

The study has identified major gaps in availability of data and information and greater health information system weaknesses than originally predicted. In fact, the design of the study, as described in the Framework Document¹ submitted to the Board in November 2006, recognized that certain questions likely could not be fully answered. The Global Fund could have profited greatly from building impact evaluation efforts into its activities from its inception. A retrospective approach is inherently less rigorous, more costly and contributes less to building national capacity. Nonetheless, this study has become a valuable experience in learning for the Global Fund and partners in understanding the type and availability of data required for such evaluations, thematic areas in need of further analysis and not least, how best to conduct such collective impact assessments in the future.

¹ The Global Fund 2006, Technical Evaluation Reference Group: Framework on the Scale and Scope of the Five Year Evaluation, Fourteenth Board Meeting Documents, GF/B14/7, Annex 3, The Global Fund to Fight AIDS, Tuberculosis and Malaria, Geneva.

Study Process

The complexity of this comprehensive multi-country study was unprecedented, involving a large number of international and country-level actors in 18 countries, subcontracts with approximately 47 local institutions and country-level consultants, and addressing both a broad scope (three diseases) and a broad range of questions. In order to contribute to learning and country capacity building, the work was required to be carried out in close partnership with country institutions, with the intention to improve countries' existing data collection and analysis mechanisms and to build these mechanisms where they were weak.

Not surprisingly, such an ambitious evaluation faced a number of scientific, technical and practical challenges, including the relatively short time since scale-up of funding, time lags between disbursement and grant implementation, the large numbers of partners involved and interventions financed, and the lack of reliable trend data. In particular, the TERG highlights the following key challenges faced by the evaluation team:

Time constraints and stakeholder alignment

In total, the timeline to completion of the study was eight months longer than originally anticipated. Most of this delay was due to the additional time required by countries to agree on work plans, to establish sub-contracts and to channel funding. The fact that all data collection and analysis was required to be complete by mid-2008 meant limited time was available for extensive country-level consensus building. Full alignment with national processes would have been preferable, but would have required a longer time frame.

Collective action

Since the study focused specifically on collective impact, efforts were made to mobilize and involve partners in the evaluation at both the global and country levels. These efforts were relatively successful in engaging development partners at the global level during all stages of the study. For example, the Joint United Nations Programme on HIV/AIDS (UNAIDS) contributed to setting up country-level Impact Evaluation Task Forces, PEPFAR contributed an additional US\$ 3.5 million, representatives from the Roll Back Malaria and Stop TB partnerships participated in initial planning fora and World Health Organization (WHO) disease experts were involved in the analysis workshops. In some countries, the country task force became a useful platform for involving a broad range of stakeholders, while in other countries the task forces became too large or inactive. However, despite the inclusive and collective intent of the study design, it seems that the impact assessment to a large extent was perceived as a Global Fund study – in particular at the country level.

Balancing participation, quality and independence

The evaluation was intended to be driven by country needs and active country participation without sacrificing scientific rigor, quality, objectivity or independence. The in-country task forces were expected to ensure broad involvement and active participation and to improve the quality of the study through direct knowledge of national programs. In practice, the experience with such teams was mixed. The TERG acknowledges the inherent tensions between the desire for inclusive participation and country capacity building and the requirement for high-quality evaluation products delivered within a short time frame.

Capacity building

The Health Impact Evaluation contributed to country capacity building through a variety of initiatives. District Comprehensive Assessments were conducted by country institutions in order to develop their capacity in carrying out surveys, data collection and management, analysis and report writing. Additionally, the *Model Evaluation Platform* containing standardized evaluation tools incorporates the experience gained during the evaluation and will be available for country and partner use in future impact studies. Capacity building was also achieved through:

- On-site technical assistance provided by experts from the consortium, particularly for survey training, use of tools, data collection, data management and analysis;
- Four international workshops on data quality, analysis, and statistical modeling involving high-level experts and partner organizations; and
- Mentoring during the writing of the country reports.

Workshops and technical assistance were found to be useful for this particular study; however, the TERG recognizes that more systematic capacity building carried out over a longer horizon may have had a more significant effect. The TERG considers the efforts made under the impact evaluation to be a starting point in this respect, and recommends that such capacity-building efforts be continued and sustained in collaboration with partners. Additional investigation is needed to assess the extent to which such efforts are effective and sustainable institutional capacity is built. Through its additional investment of US\$ 3.5 million in capacity building and sustainability efforts, PEPFAR has already made a significant contribution toward this goal.

Design and Methodology

Timing

Since the scaling up of the response only began in 2003-2004, it could be argued that the timing of the study was too early to expect to measure impact, given the time it takes before increases in funding reach intended beneficiaries on a large scale and translate into evidence of impact. On the other hand, the study was designed to focus on overall country progress rather than the impact of the Global Fund or specific development partners. The TERG believes that such an evaluation five years after the inception of the Global Fund was timely and contributes to identifying gaps in data, supporting corrective action and building country capacity.

Quality and availability of baseline data

TERG notes that a recurrent issue in the report is the absence of solid and consistent baseline data upon which to base conclusions regarding the effects of scaling-up. The availability of baseline data is compromised by the general lack of high-quality, routinely collected data on the three diseases and the absence of good quality financial data. Virtually all countries raised concerns about the quality and availability of such data.

The terms of reference of this study were ambitious, and expectations high. The study design recognized limitations in data, but made an assumption (in light of the Global Fund's strict performance-based funding requirements) that more routine service, outcome and impact data would be available.

In the eight primary data analysis countries, where recent outcome data was not available, the evaluators supplemented this data using the District Comprehensive Assessment survey with questions on coverage of interventions and behavior change. However, filling gaps in mortality data proved far more challenging. In the absence of mortality registers, verbal autopsy studies are considered to be the only alternative. However, even for very high burden countries, the number of households that would need to be surveyed in order to obtain robust death estimates attributable to specific diseases is far beyond the budget and scope of this study.

Measuring change and modeling

The Health Impact Evaluation was intended to measure changes over time – not only in level of funding and access to services, but also in outcomes and impact. The study followed an observational design with no counterfactual or matched countries for comparison. A strong counterfactual design was not possible given the retrospective nature of this evaluation. However, due to the lack of quality baseline data on the burden of disease, it was not possible to measure change and progress over time for all countries. The impact assessment was carried out to some extent through statistical modeling for HIV and malaria. However, the use of modeling was minimized, as the TERG did not consider such a tool adequate for measuring program impact. Had data been available on differential levels of funding and differential estimates of service coverage at the district level, more modeling of impact would have been possible. Despite these challenges, the report presents a solid status update of country progress in the fight against the three diseases and a solid baseline for future studies.

Tuberculosis programs

The country selection process ensured the inclusion of countries which have received grants for each of the three diseases. The selection produced a set of countries containing a wide variety of HIV and malaria programs. However, in the case of TB, it is important to note that the 18 participating countries mostly exhibited relatively mature DOTS programs with correspondingly less room for change and improvement. The results of the study may therefore not be representative of the global TB program status. The Global TB Database indicates considerable scale-up in case detection and also a steady improvement of the treatment success rate concurrent with increased global and national investments.

Further, the TERG emphasizes the clear, positive impact of the DOTS strategy in these 18 countries from 2003-2006 as illustrated by the estimated number of TB deaths averted and life years saved. Success stories include the TB decline in Peru and early evidence of impact on TB incidence and transmission in Tanzania – which is remarkable for a high-burden HIV/TB country. The TERG believes that the facility survey performed under the Health Impact Evaluation to assess the readiness of TB services may not fully reflect the underlying quality of the programs and would benefit from further validation.

Artemisinin-based combination therapy use in malaria programs

The evaluation revealed that ACT availability and use is limited. The TERG would like to underline that countries received funds for ACT purchase and training relatively late compared to the time frame of the evaluation. In fact, most countries did not receive resources for procurement of ACT prior to Round 5. Most of the procurement has occurred in the last two to three years, which may explain why increased funding of ACTs has not yet translated into increased coverage. This finding should probably not be attributed to poor country progress.

Future Information Needs

The Health Impact Evaluation report covers a broad range of issues and addresses most of the questions posed in the original terms of reference. However, the evaluation identifies serious information gaps and underscores the need for additional studies in areas important for the Global Fund. The TERG specifically highlights the need for more and better information in the following areas:

Civil society and community-based interventions

Additional data is required to describe community-based interventions, including services to affected communities and people living with the diseases. New types of studies and tools would be required to capture such results. The data collection undertaken for this evaluation was primarily focused on health service delivery and was not adequate for collecting information on interventions by community-based organizations and civil society.

HIV prevention

The Health Impact Evaluation report focuses primarily on health service-based activities such as provision of ARV treatment, Voluntary counseling and testing and PMTCT. This is especially problematic for HIV prevention, given that most prevention efforts are not health service-based. These non-health service-based efforts are difficult to measure, given the myriad interventions and actors. In order to do so, specific, standardized tools would be most useful.

High-risk groups

Additional in-depth analysis of interventions targeting high-risk groups is needed. There are important methodological challenges in measuring scale-up and coverage among high-risk groups. Such an assessment requires a more country- and situation-specific design and would require replicable methodology to allow assessment of trends.

Differential analysis

The report presents rich analysis and variety of country-level data. However, a more useful analysis must go beyond the data to explain differences in performance between countries, or to explain for example, the effectiveness of specific interventions, taking into account contextual variables such as health systems, policy changes or political instability. Such differential analyses and explanations are required in order to enhance learning and to facilitate a more programmatic and strategic discussion of the most cost-effective allocation of resources.

HIV/TB and multidrug-resistant tuberculosis

The study did not address the issue of HIV/TB co-infection and could not reflect the full scope of progress in the high HIV/TB countries such as Tanzania, Malawi, Zambia, Ethiopia and Cambodia. Further assessment of the multidrug-resistant TB problem is necessary, complemented by additional information on program performance.

V. KEY ISSUES AND PRIORITIES

The Health Impact Evaluation has clearly demonstrated that the rapid increase in funding from all partners has resulted in a major expansion in access to services in these countries and improved coverage of interventions, which will likely impact disease burden. Based on the experiences gained in conducting this comprehensive study of health impact, the TERG brings the following critical issues to the Board for its consideration:

A. Developing a focused approach to program monitoring and evaluation

To improve data quality and availability in support of its performance-based funding system, the TERG recommends that the Global Fund develop a short-term (two- to three-year) plan of action for improving country-level monitoring and evaluation systems and national health information systems. However, the strengthening of monitoring and evaluation and health information systems in general is too broad an objective. Instead, the Global Fund should develop a specific and realistic action plan to improve data availability and use, in collaboration with relevant partners (such as the Global Task Force on TB Impact Measurement). This plan should focus on:

- Collecting quality data for a few priority indicators;
- Improving the availability of cost, outcome and impact data in national monitoring and evaluation plans;
- Improving harmonization of Global Fund reporting with country reporting cycles and health sector reviews;
- Improving institutional capacity at the country level for data collection, analysis and report writing;
- Strengthening monitoring and evaluation capacity outside the traditional health sector, e.g., among civil society organizations focusing on prevention activities and high-risk groups, feeding into the national monitoring and evaluation system and better aligning with it;
- Addressing data gaps on TB prevalence, mortality and diagnostic intensity to supplement the strong clinical case-finding and treatment reporting systems; and
- Shifting the focus of monitoring and evaluation from mainly a control and auditing tool to being an essential programmatic and disease-control priority with specific funding.

B. Adopting a differentiated approach to reflect diverse country needs

In light of the evaluation findings, the TERG suggests the Global Fund should consider supporting a more differentiated approach to approving funding decisions to take into consideration diverse country contexts. The Technical Review Panel has emphasized the need for improved information on country contexts, including the availability of data, type of epidemic, disease burden, previous grant performance, status of the country program, availability of other external funding, etc. In determining funding decisions, the Global Fund could more accurately assess the specific needs of each country with the support of country- and global-level partners.

C. Improving the sustainability and predictability of funding

The scaling up of ARV treatment and DOTS programs represents a long-term commitment and, as such, a challenge for future sustainability. Stopping treatment can lead to the development of drug resistance and poses a serious risk for patients. This risk is particularly high when government contributions to the programs are small and most of the funding is sourced from a single external donor. The TERG proposes that future funding from the Global Fund should include a clear phase-out strategy. The Global Fund should strive to ensure that governments progressively increase domestic funding and that external support becomes more predictable for treatment programs.

D. Focusing on cost-effective interventions for maximum impact

The positive achievements also represent a challenge for the Global Fund as it determines how best to sustain and increase the provision of the most effective services to maximize impact. The TERG believes the Global Fund should take a proactive approach, focusing on the most cost-effective prevention and treatment strategies tailored to the type and local context of specific epidemics, and delivered as efficiently as possible so as to maximize coverage with available resources.

E. Supporting a continuous quality assessment and evaluation strategy

In future impact assessments, the TERG emphasizes the need for continuous impact measurement, rather than large multi-country impact studies once every five years. The Global Fund should support a rolling evaluation plan with regular country-specific evaluations supplemented with national capacity building in monitoring and evaluation and occasional external program audits.

VI. CONCLUSION

The objectives of this evaluation supported the principles of coordinated program monitoring and evaluation, namely those set out in the “Three Ones” principles in April 2004 and the Paris Declaration in March 2005. The Health Impact Evaluation underscores the need for ongoing efforts to harmonize, align and manage aid and investments to obtain results against actionable indicators, to avoid duplication and fragmentation of resources and to ultimately improve the ability of donors and host countries to work together to achieve development goals and promote national monitoring and evaluation goals.

As expressed by one of the reviewers of this evaluation: “In many respects, this evaluation process shares many of the characteristics of the Global Fund itself. It was conceived with the right principles and approach in mind, along with engaging the best technical people and giving them at least reasonable financial resources to initiate an innovative process. The technical team developed a thoughtful and, in most respects, state-of-the-art approach towards tackling the problem. However, this evaluation faced significant challenges once it entered the real world of extremely weak country institutions, multiple stakeholders with poor in-country coordination, and very poor routine information systems.”

This independent study challenged the early expectations that more data would be available and better systems in place at the country level. The evaluation has helped the Global Fund and others to become more realistic, but even more importantly to take corrective action and help strengthen and build such systems for future use.

The Five-Year Evaluation Health Impact study was expected to contribute to strengthening the foundation for future impact assessments. In addition to the main report, the evaluation has provided:

- A *Model Evaluation Platform*, including a cohesive package of evaluation tools and lessons learned during the evaluation;
- A data depository in collaboration with the International Household Survey Network to make the large amount of data available for further use; and
- 18 country reports evaluating the progress in the fight against the three diseases and identifying data gaps.

To sustain the momentum of the Five-Year Evaluation, such products should be used by development and country partners and adapted and integrated into existing global initiatives such as the Health Metrics Network and International Health Partnership Plus country health system surveillance.

The TERG believes that the developmental approach – with a strong focus on learning and capacity building at the country level – was not only useful but also the only viable approach to the impact study. It was also important for the Global Fund that the first major Five-Year Evaluation be carried out by independent researchers not only for the purpose of ensuring accountability, but also to encourage and support alternative perspectives and organizational learning.

ANNEX A – LIST OF CURRENT TERG MEMBERS

TERG members

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ANNEX B

Guiding Principles of the Global Fund¹

- A.** The Global Fund is a financial instrument, not an implementing entity.
- B.** The Global Fund will make available and leverage additional financial resources to combat HIV/AIDS, tuberculosis and malaria.
- C.** The Global Fund will base its work on programs that reflect national ownership and respect country-led formulation and implementation processes.
- D.** The Global Fund will seek to operate in a balanced manner in terms of different regions, diseases and interventions.
- E.** The Global Fund will pursue an integrated and balanced approach covering prevention, treatment, and care and support in dealing with the three diseases.
- F.** The Global Fund will evaluate proposals through independent review processes based on the most appropriate scientific and technical standards that take into account local realities and priorities.
- G.** The Global Fund will seek to establish a simplified, rapid, innovative process with efficient and effective disbursement mechanisms, minimizing transaction costs and operating in a transparent and accountable manner based on clearly defined responsibilities. The Global Fund should make use of existing international mechanisms and health plans.
- H.** In making its funding decisions, the Global Fund will support proposals which:
 - 1.** Focus on best practices by funding interventions that work and can be scaled up to reach people affected by HIV/AIDS, tuberculosis and malaria.
 - 2.** Strengthen and reflect high-level, sustained political involvement and commitment in making allocations of its resources.
 - 3.** Support the substantial scaling up and increased coverage of proven and effective interventions, which strengthen systems for working: within the health sector; across government departments; and with communities.
 - 4.** Build on, complement, and coordinate with existing regional and national programs in support of national policies, priorities and partnerships, including poverty reduction strategies and sector-wide approaches.
 - 5.** Focus on performance by linking resources to the achievement of clear, measurable and sustainable results.
 - 6.** Focus on the creation, development and expansion of government/private /nongovernmental organization partnerships.
 - 7.** Strengthen the participation of communities and people, particularly those infected and directly affected by the three diseases, in the development of proposals.
 - 8.** Are consistent with international law and agreements, respect intellectual property rights, such as TRIPS, and encourage efforts to make quality drugs and products available at the lowest possible prices for those in need.
 - 9.** Give due priority to the most affected countries and communities, and to those countries most at risk.
 - 10.** Aim to eliminate stigmatization of and discrimination against those infected and affected by HIV/AIDS, especially for women, children and vulnerable groups.

¹ The Framework Document of the Global Fund to Fight AIDS, Tuberculosis and Malaria, 2001

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ISBN: 92-9224-161-3