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Scaling up the provision of Antiretroviral Therapy (ART) in health systems – An update on recent progress

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Abbreviations

ART	Antiretroviral therapy
ARV	Antiretroviral
ARVMAC	Effects of Antiretrovirals for HIV on African health systems, Maternal and Child health
BCC	Behavior-change communication
COC	Continuum of Care
DAH	Development assistance for health
DAART	Directly administered antiretroviral therapy
DFID	Department for International Development (UK)
DOT	Directly observed therapy
ERC	Ethics and review committee
FHI	Family Health International
GAVI	Global Alliance for Vaccines and Immunizations
GBS	General Budget Support
GDP	Gross domestic product
GFATM	Global Fund to Fight AIDS, Tuberculosis & Malaria
GHI	Global Health Initiatives
GHPS	Global health partnerships
GNI	Gross national income
GPG	Global public goods
GTT	Global Task Team on Improving AIDS Coordination among Multilateral Institutions and International Donors
HBC	Home based care
HLF	High-Level Forum on the Health MDGs
HMN	Health Metrics Network
HMIS	Health management information system
IEC	Information, education, communication
MDGs	Millennium Development Goals
MoH	Ministry of Health
MoHSW	Ministry of Health and Social Welfare
MTEF	Medium-Term Expenditure Framework
MTCT	Mother-to-child transmission
NASCOP	National AIDS and STD Control Programme
NGO	Nongovernmental organization
PLWHA	People living with HIV/AIDS
PMTCT	Prevention of mother-to-child transmission
PRSP	Poverty Reduction Strategy Paper
RPM+	Rational Pharmaceutical Management Plus
SARS	Severe acute respiratory syndrome
SCIH	Swiss Centre for International Health
SOP	Standard operating procedure
SP/CNLS	Secrétariat permanent du Conseil national de lutte contre le SIDA et les IST
STI	Sexually transmitted infection
STI	Swiss Tropical Institute
SWAps	Sector-Wide Approaches
TB	Tuberculosis
TRAC	Treatment and Research AIDS Center
TRIPS	Trade-related Intellectual Property Rights
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNICEF	United Nations Children's Fund
USAID	U.S. Agency for International Development
UNITAID	Formerly the International Drug Purchase Facility
WHO	World Health Organization

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Executive Summary

In 2003, the World Health Organisation (WHO) launched its “3 by 5” initiative which brought life into the UNGASS Declaration and set the ambitious goal of providing ART to 3 million people by the end of 2005. Subsequently, in 2005, the G8 called for Universal Access to prevention, treatment, care and support by 2010. A major political effort and a staggering increase in funding for the global response have ensued. By December 2006 WHO estimated that around 2 million people living with HIV/AIDS were receiving antiretroviral therapy. In the space of a few years the number of people on antiretroviral therapy (ART) in low and middle income countries increased fivefold.

Despite the achievement, there is no room for complacency. “Raw numbers conceal the fact that >70% of those in need of ART are still living (or more accurately, dying) without it” (Ojikuitu, 2007). Furthermore, different regions of the world are wrestling with complex difficulties associated with this rapid scale up in service provision. Not least of all, the stigma surrounding the disease continues to hamper timely take-up rates for the various HIV service offers put in place.

The challenges of scaling up are no where more acute than in Sub-Saharan Africa – not only do many of these countries have the greatest numbers of people in need of anti-retroviral therapy, but many of the health systems struggle to find the capacity to deliver these increasingly complex therapeutic interventions.

Important synergies from the scale-up can however, be exploited for the entire system through closer collaboration with other vertical programmes, greater cooperation between public and private actors as well as in the extent to which logistical supply systems are decentralised or centralised. Investments in infrastructure, human resources and logistics can be strategically exploited to bring benefits that are wider than the simple requirements of a single programme.

Strategies for health system strengthening are now more actively promoted including the call for donors to invest in recurrent health system costs, efforts to achieve strategic human resources planning and a drive for greater quality of care. It is already clear that building capacity and achieving strong management at the different levels of the system are time-consuming processes that do not respect limited, programmatic timeframes. Furthermore, some lessons learned can already be identified: these include financial absorption limitations, the need for strict alignment, the advantages of scaling up from within a well established district led response, the importance of integrating HIV planning into health sector planning at the levels closest to service delivery, monitoring health system’s performance and the predictable, consistent nature of the support that countries shall require in this endeavour in the very long term.

Scaling up Antiretroviral Treatment is the largest, costliest and most complex therapeutic public health intervention ever undertaken

1 Preamble

Scaling up Antiretroviral Treatment (ART) is the largest, costliest and most complex therapeutic public health initiative ever undertaken. This paper summarizes the current status of implementing ART in resource poor countries and reviews knowledge on the effects of scaling up efforts on health systems. Whilst research in this area is now increasing, the focus has been quite generalised as it still remains early days to reach conclusions regarding the impact on health indicators and outcomes.

Effects of Antiretrovirals for HIV on African health systems, Maternal and Child health (ARVMAC)¹ is a European Union funded project with the main objective to assess the effects of the rapid scale-up of ART for HIV/AIDS on resource-limited health systems, maternal and child morbidity and mortality in three Sub-Saharan African countries – namely, Burkina Faso, Tanzania and Uganda.

As a member of a larger consortium of Northern and Southern organisations, the Swiss Tropical Institute is responsible for the work packages on Policy Analysis and Policy Implications. The literature review and preliminary findings from ARVMAC feed into this key issues paper.

2 Background

Milestones paving the way²: The UN General Assembly Special Session on HIV/AIDS (UNGASS) in 2001 embraced a comprehensive approach to the international HIV response, giving priority to both treatment and support and prevention efforts.

In 2003, the World Health Organisation set the ambitious goal to provide ART to 3 million people by the end of 2005

In 2003, the World Health Organisation (WHO) launched its “3 by 5” initiative. “3 by 5” brought life into the UNGASS Declaration and set the ambitious goal of providing ART to 3 million people by the end of 2005 to respond to this “global health emergency”. This came in the wake of a sharp decrease in the price of antiretroviral drugs, intensified calls for access to treatment from civil society and the results of several pilots whereby NGOs demonstrated the provision of highly active antiretroviral therapy (HAART) to be both feasible and effective in resource-poor settings. In 2005, the G8 called for universal access to prevention, treatment, care and support by 2010. In 2006, UNGASS +5 drew attention to the importance of responding to HIV as a prerequisite to reaching internationally agreed development goals and objectives, including the Millennium Development Goals (MDGs). Today, the HIV related target under MDG 6 is the only MDG target which will most likely NOT be achieved in any of the region of the world.

Financial Resources: There has been a staggering increase in funding for the global response to HIV and AIDS. At the G8 Summit in 2003 President Bush launched the 5-year, \$15 billion President’s Emergency Program for AIDS Relief (PEPFAR), which led to a tripling of US spending on HIV/AIDS. The Global Fund to

¹ <http://www.arvmac.eu/>

² Please refer to: “25 years of AIDS, Key Developments in the area of HIV/AIDS from 2001 to the present” (2006) an SDC key issues paper established by the Swiss Tropical Institute.

Fight AIDS, Tuberculosis and Malaria (GFATM) was established in 2002 – albeit as a temporary funding modality. The current disbursed budget is \$5,139,296,080³. After Round 6, 58% of the total disbursement had been for HIV/AIDS, 24% for Malaria, 17% for Tuberculosis and 1% for health system strengthening. Of the funding made available between Rounds 2-6, 48% was spent upon commodities – products and drugs – with the procurement of antiretrovirals hereby included, 22% on human resources (training and capacity building), 11% on administration, 11% on infrastructure and equipment, 2% on M&E and 6% on “other”. This budget is larger than the combined funding of the World Bank and WHO portfolios with regard to these three diseases. New International Foundations such as the “Bill and Melinda Gates Foundation” and the “Clinton Foundation” have emerged and the EU declared HIV/AIDS as a priority in its policies and reallocated funds accordingly.

Apart from international support, bilateral funding at country level has also contributed to the ART scale up, although the shift by other donors has been far less pronounced than that of the USA. Global funding to combat HIV in low- and middle-income countries has more than tripled since 2001. The required funding for ART is expected to nearly double from US\$ 3.4 billion in 2006 to US\$6.2 by the end of 2008.

Between 2001 - 2005 the number of people on ART in low & middle-income countries increased fivefold

Treatment Access Trends: By December 2006 it was estimated by WHO that around 2 million people living with HIV/AIDS (*representing around one third of the 7 million in need*) were receiving antiretroviral therapy in low-and middle-income countries. In 2001 it was just 240,000. In Sub-Saharan Africa this number increased from 100,000 at the end of 2003 to 810,000 two years later. Despite the impressive progress, the target of reaching half of those in need with therapy remains unaccomplished and “raw numbers conceal the fact that >70% of those in need of ART are still living (or more accurately, dying) without it” (Ojikutu, 2007). Prevention of vertical transmission programmes show only extremely modest progress (UNAIDS 2007) and of the 800,000 children estimated to be in need of treatment, only 15% have access (Ojikutu, 2007). Scaling up HIV treatment for children faces particular barriers as special tests are needed to diagnose infection and very few clinicians are skilled in paediatric care in resource-constrained contexts (Pediatrics, 2007).

A summary report issued by the WHO/AMDS Global Price Reporting Mechanism (GPRM) in October, 2007 confirms that median prices of the most commonly prescribed ARVs in fixed dose combination (stavudine 30 mg + lamivudine 150 mg + nevirapine 200 mg) continued to decline during the period from January to June 2007.⁴ The same trend is being observed with Antiretroviral drugs (ARVs) for children. However, the costs of oral solutions for infants/young children still remain high⁵ and the availability of paediatric ARV formulations scarce (Pediatrics, 2007)

³ http://theglobalfund.org/en/funds_raised/commitments/accessed 20.02.2008

⁴ They are now available with a median price per patient per year of US\$ 77 in low-income countries and US\$ 99 in middle-income countries.

⁵ The median cost of the most widely prescribed regimen as oral solution (zidovudine 10 mg/ml + lamivudine 10 mg/ml + nevirapine 10 mg/ml) for a five kg infant is now US\$ 174 (per child per year) in low-income countries and US\$ 235 (per child per year) in middle-income countries.

The issue of where generic AIDS drugs can be produced continues to be critical to the success of achieving Universal Access. Countries such as Brazil and Thailand have made major progress in this regard. This has only been possible because key pharmaceuticals were not patent protected and could be produced locally at much lower cost. India is of particular importance in the industry because companies there make both the finished generic tablet form of drugs and the raw ingredients and chemicals used in their manufacture. However, in 2005 the 5-year transition period specially awarded to India to help the country conform to TRIPS came to an end and a few months later, new patent laws came into forces which tie up production with an unwieldy bureaucracy around the issue of compulsory licensing.

Transforming a deadly disease into a manageable chronic one, turns millions of people into chronic patients in need of life-long, follow-up.

Transforming a deadly disease into a manageable chronic one turns millions of people into chronic patients in need of life-long regular follow-up. This means that present efforts and commitments need to be maintained for the coming decades. A longer-term view is now seen to be needed to bring us to the ultimate goal of universal access to ART delivered by national health systems (Van Damme, 2006). Furthermore, the needs of people living with HIV or AIDS are complex and go far beyond the therapeutic aspects of ART. Only a small proportion of those infected are actually in need of ART. Health systems, on the other hand, are confronted with a wide range of priority challenges, of which HIV/AIDS is just one. This paper therefore looks at the system-wide linkages between the scale up of ART and health systems, within which these services are offered.

3 A global view of the scale up and its effects

Given the complexity of the ART scale up, the ramifications are not only considerable but also unpredictable. It is an observed trend that the scale up magnifies underlying problems in health systems – be these the weak human resources base, the limited experience in collaboration with the private sector or poor procurement and distribution systems (Oliveria-Cruz, Hanson, Mills, 2003).

To cite an example from Latin America, **Brazil** has succeeded in expanding HIV treatment through **integrating care and treatment within existing health and social services systems**. The effectiveness of the response is based on strong political commitment and attributed to the building of synergies with the wider prevention and care continuum as well as drawing on civil society and private sector resources and capacities. The scale-up benefited from there being functioning primary health care services in place which could take up provision of this additional service package⁶.

In **Vietnam** the HIV epidemic is still concentrated among high risk populations most notably IDU and female sex workers. The government response for both prevention and treatment are currently estimated to be reaching 12% of those in need. However, **service provision to date has remained highly verticalised and focused upon the group of most perceived risk - young male drug users**. Women are estimated to make up 33% of the 260,000 people living with HIV/AIDS nationwide (UNAIDS, 2007), yet scant attention is being paid to their risk of exposure and treatment needs. **Even in urban areas only a few antenatal care centre and maternity hospitals offer VCT routinely or reliably**. The 2006-2010

⁶ Ministry of Health, (2004) The Brazilian Response of AIDS, Best Practices, Mimeo, Brazil

HIV/AIDS Strategic Plan allocates 8% of its budget to PMTCT, but such programmes are slow in being established (Nguyen et al, 2008). In **China** the scale up is proceeding well with a major political effort. ART, including PMTCT, is being provided free of charge in highly affected provinces and the blood transfusion system has been overhauled. 650,000 people are currently living with HIV (UNAIDS, 2007). In 2006 20,453 AIDS patients were receiving antiretroviral therapy in 605 counties within 28 provinces⁷. However, analysis shows **ART programmes are concentrated in urban areas and centred around big hospitals which have the infrastructure to manage them**, which reflects an imbalance in both resource allocation and access.

In **Russia** and many states of the **former Soviet Union** most of those living with HIV may not know their status. As of August 2007, there are 390,365 registered cases of HIV in Russia, but estimations of the true number lie between 560,000-1.6 million. About 30,000 PLWHA now have access to ARV treatment.⁸ Russia's weak health care infrastructure – particularly in laboratories –, pervasive stigma and lack of support services for the most vulnerable groups threaten an efficient scale-up. AIDS centres remain isolated budgetarily and institutionally from the health care system as a whole. There is no standardised protocol for ARV provision and distribution with many centres experiencing breaks in the supply of certain drugs. Many patients only access treatment too late which is a factor reinforcing the helplessness of health professionals and the resulting lack of compassion that is reported in anecdotal accounts. Psychosocial support reaches few PLWHA and fear continues to evade efforts to initiate discussions about the needs of dying patients and bring improvements in the area of palliative care.

For policy makers in Sub-Saharan Africa, the tremendous challenge lies in the fact that many health systems lack the capacity to provide even basic health care

For policy makers in **Sub-Saharan Africa**, the tremendous challenge lies in the fact that many **health systems lack the capacity to provide even basic health care to the population** - let alone to provide HIV treatment. Many are concerned about the parallel manner in which HIV treatment is being introduced. Since the launch of Round 5, GFATM explicitly mentions support for “health systems strengthening” (HSS) as an eligible funding area. However, an analysis of proposals shows not only the significant hand that international consultants play in their writing, but also that HSS interventions are often limited to training, workshops and procuring of new equipment rather than tackling strategic areas such as essential drug procurement, supply and distribution systems (scant examples found in India, Thailand and Zambia) or investing in human resource planning or referral system strengthening. For the later, the TB proposal from Uganda forms a solitary example. Ethiopia has also sought to exploit synergies from GFATM support for a health sector M&E system. This has led to a redesigning of the health information and reporting system, and increasing interlinkages and visits between national and regional level.

⁷ National Centre for AIDS and STI Control, China available at <http://www.chinaids.org.cn/n443289/n443292/5196.html> accessed 19/12/2007

⁸ Global Business Coalition, Transatlantic Partners Against AIDS information available at <http://www.tpaa.net/publications/policy/?id=2861> accessed 18/12/2007

To date reviews identify the following areas as important synergies generated by the ART scale up that can benefit entire health systems:

- ❖ Collaboration with other vertical programmes
- ❖ Decentralisation and ART provision
- ❖ Cooperation between private and public actors

The following paragraphs will explain these synergies in more detail.

3.1 Collaboration with other vertical programmes

In many countries a multitude of parallel vertical programmes present a challenge for the health system. As the number of people on ART had to increase rapidly, ART programmes were generally embarked upon in a vertical manner. India's public health system, for example, is punctuated by superimposed, vertical programmes which are never quite as successful as the predictions that precede them. One Ministry of Health official says: "The PHC health staff do not support, for example, the HIV/AIDS programme because it does not offer cash incentives or involve them in training. These vertical programmes are creating distortions, and there is too little collaboration both between the different programmes and between the programmes and the rest of the health system when it comes to implementation⁹. Similarly from Rwanda reports indicate that this lack of interlinkage between specific programmes and the primary health care system as a whole reflects itself in staff motivation. Whilst HIV/AIDS and TB programme staff access frequent training and refresher courses, PHC staff feel under-supported and over-worked. Patients brought into the ART system as they start TB treatment are often thwarted in their efforts to adhere by the long waiting times, stock outs and unfriendly reception at primary health care facilities.

In the Namibian public health system, integrated approaches to link the provision of ART to TB, sexual & reproductive health and other essential health services are being developed. Indeed, targeting HIV positive current users of the health system for example using Mother and Child Health to reach more couples with PMTCT, approaching TB patients with voluntary testing and counselling (VCT), and following up all VCT clients with regards to eligibility for HIV treatment is the advised practice. Several countries, such as Zimbabwe now offer provider initiated testing whereby every patient is offered a voluntary HIV test as a routine part of health care (Noble, 2007).

In the literature, indications can be found that agreements on how infrastructure, vehicles, communication systems and equipment can be used optimally by the system rather than remaining the property of a vertical programme are now sometimes found to be in place. However, there is still room for much greater streamlining and efficiency in the area of M&E and financial reporting. The reality of ART and PMTCT provision mean that even if the intention is for them to be

⁹ Information available at <http://www.infochangeindia.org/features399.jsp> accessed on 21st December, 2007

integrated they tend to require strict additional monitoring and reporting to various sources which increase the burden for health staff.

3.2 Decentralisation and ART provision

Many low and middle income countries are engaged in reform processes which see national ministries overseeing policy and regulation whilst responsibility for implementation and service delivery shift to a lower level. When new functional levels are established, it is understandable that initial capacity limitations abound. Over half of the governments surveyed in a recent ODI review report insufficient capacity at national and lower levels of their health systems (Buse, K et al, 2006).

While for many countries, as mentioned before for China, it is still true that access to ART is limited to mostly urban settings, in others efforts to decentralise ART provision are underway in a bid to achieve “Universal Access”. Haiti, for example, has scaled up through integration into the Primary Health Care System. In Malawi service delivery mechanisms have been simplified through involving nurses and medical assistants in a trend that is also being considered in other countries. The sheer burden of disease associated with HIV/AIDS has generated the rise of a semi-formal infrastructure of community and home-based care – often based in non-governmental organisations. Relying mostly on volunteers or semi-remunerated workers this phenomenon constitutes a significant de facto workforce providing services at grassroots level.

Logistical supply systems are another area where the tense play-offs between the stringent need for a constant, uninterrupted supply of ARVs, the need for other essential drugs, decentralisation and vertical programme demands for centralised controls can be observed. Studies from Guatemala, a lower-middle income country, and Ghana, a low income country, show that Logistical Management Information Systems (LMIS) providing information on needs and inventories perform better when there is a uniform national system. The studies point to the need for ARVs to be taken up in the centralised LMIS rather than to occur in parallel. When it comes to planning and budgeting for logistics, performance increases when this is done at lower levels. The application of this finding to ARVs is seen to be an area in need of further research (Bossert et al, 2007).

3.3 Cooperation between private and public actors

High levels of new funding can serve to exacerbate mistrust and conflicting roles between public and private stakeholders, particularly if there is a lack of transparency and competition for human resources. Correctly used, however it can bring positive change: In Benin, for example, the voice of NGO’s has become stronger through active engagement in Global Fund coordination processes (Brugha et al. 2003). Whilst in Malawi NGOs are starting to fill service delivery gaps and the number of private sector sites providing GFATM-funded ART grew by 28 between 2003-2005. This is despite challenges which include a lack of legal mechanisms within the MoH for officially contracting out services to NGOs (Preker, A.S., 2005). In many countries private practitioners are also taking part in ART training alongside public sector staff (Mtonya, B. and Chizimbi, S. 2006).

High levels of new funding can serve to exacerbate mistrust between public and private stakeholders

The private for profit sector has, furthermore, become an important provider of ART through workplace programmes. Faced with the loss of a skilled workforce, large companies, particularly multinationals, have shown their readiness to make services available to family members of employees and surrounding communities. They also have increased means to achieve this, enabling sizeable, domestic companies to come on board as well. Both the Global Business Coalition (<http://www.businessfightsaids.org/live/home/home.php>) and the International Labour Organisation, ILO, have been very active in this regard.

4 Effects of the scale up on health systems – focused upon Sub-Saharan Africa

For universal access to be achieved and sustained, the quality of basic primary health care must simultaneously be improved

It is now widely recognised that vertical structures drain resources from a “crumbling core” (Loewenson & McCoy, 2004) and whilst they may address short term needs, they cannot form the basis of universal access. Indeed, if this is to be “achieved and sustained, the quality of basic primary health care provided to the poorest must simultaneously be improved (Ojikutu, 2007). WHO has established a **framework for health system performance** which some analysts are using to monitor trends in the effects of the scale up on entire systems. The framework divides systems into three objectives (goodness, fairness and responsiveness) and a set of functions (delivery services, creating resources, financing and stewardship¹⁰) required to achieve these objectives (Schneider et al, 2005).

In neither Tanzania nor Burkina Faso is the “**financing**” of HIV treatment currently the greatest stumbling block. However, global initiatives were established to target aid to areas perceived as neglected and not to strengthen health systems per se. In 9 countries, including Tanzania and Uganda, governments have reallocated domestic resources since HIV financing increased, meaning that health budgets have changed very little and in Mozambique and Zambia actually declined (Lewis, M, 2005)¹¹. The sustainability of such a situation is a cause of ongoing concern. This is particularly so when it is remembered that chronic underinvestment in certain key areas of health systems lie at the heart of current day delivery constraints – most particularly in the area of human resources. At the same time rapid ART financing causes absorption problems and the volatile nature of the funding make it difficult for governments to use it for long-term recurrent investments such as expanding the civil service or addressing wage policy (Brugh et al, 2004).

When it comes to “**creating resources**”, although a major share of GHI spending goes towards the procurement of pharmaceuticals and other commodities so far most examples where health service infrastructure has benefited are found at referral level hospitals and not in the district. This applies to GFATM funding for HIV/AIDS which has improved laboratory and even clinical infrastructure at the tertiary level in Chad, Burkina Faso and Tanzania. Schneider et al (2004) sees a

¹⁰ Stewardship“ is defined by WHO as a „function of a government responsible for the welfare of the population and concerned about the trust and legitimacy for which it’s activities are viewed by the citizen“.

¹¹ See also, Hutton, Wyss (2005) Strengthening health systems in Southern and East Africa in the context of scaling-up HIV/AIDS interventions:Resource flows, aid modalities, intervention scaling up, and equity.

The delivery appears to work best when ART is offered as part of an integrated package of HIV prevention & care

partial explanation to lie in the fact that “HIV treatment cannot be provided in a separate vertical programme without re-creating a whole new, parallel health system infrastructure”. This shows itself clearly in the case of drug supply systems which tend to be set up separately for ARVs. Most of the equipment made available is specifically for HIV treatment with its maintenance often centralised.

The “**delivery of services**” appears to work best when ART is offered as part of an integrated package of HIV prevention and care that starts well before ART is actually required. Recent efforts in Tanzania for large-scale voluntary HIV testing will only work if services are in place and are trusted and not shrouded in stigma. As a chronic disease HIV needs a health system that is able to refer patients to different levels and between public and private providers. These are historical areas of weakness and as such the scale up offers an unprecedented opportunity for improvements over time.

“**Responsiveness**” is of crucial importance when it comes to HIV treatment given the importance of adherence. ARVs form a lifelong therapy and to be effective extremely high adherence to the prescribed regime is required. MSF describes that a new kind of relationship is needed with the client to achieve this and that patients have to assume new responsibilities. Here, there is scope for health systems which are often not patient-centred to further develop and for links to the community to be strengthened.

Good stewardship is key to achieving a scale-up that builds upon existing opportunities. It is therefore crucial that Ministries of Health are supported to put standardised approaches into place, to regulate drug use and to strengthen district health management and systems so that quality services can be provided to as many as possible. Clear national frameworks assist on the one hand donor harmonisation and alignment and, on the other, allow other national stakeholders like the private sector and NGOs to come in and play a defined role. A general assessment of the Global Fund in fact shows that it has often had a beneficial effect upon stewardship, by allowing further interaction between relevant actors through the Country Coordinating Mechanisms (Wyss & Weiss, 2005).

Further effects relate to cooperation between HIV treatment and other vertical programmes, decentralisation and private sector involvement and have been mentioned in the chapter on global trends. **Additionally, the following areas hold specific importance in the context of Sub-Saharan Africa:**

Policy development: whilst most countries screened in a review by ODI 2006 have national AIDS plans, few are explicit about priorities, only 60% are costed and less than 50% have been translated into operational plans with interlinkages to health sector plans and country level M&E systems.

Human Resources: Poorly managed and inappropriately mixed human resources compound the general lack of available, qualified staff. The underlying difficulties are exacerbated by the HIV epidemic itself, with workload and illness amongst existing staff rising. The fact that private providers, e.g. GFATM and NGOs, often provide substantially higher salaries can lead to a draining of technical staff away from public positions. Similarly, at health service delivery level a shift of staff into disease-specific positions has been observed (Stillman, K & Bennet, S, 2005). The

uncoordinated number of HIV related trainings even affects availability of staff at facility level (Banteyerga, H. 2006).

Malawi is an extreme example, where human resources have dwindled so low that an emergency response is required. This includes “**task-shifting**” whereby the MoH allow non-medical health workers to conduct VCT and other HIV activities. The approach is associated with concerns about quality of care and the need for proper supportive supervision. Positive examples from stronger health systems include Ghana where many ART tasks are carried out by specially trained nurses under the monitoring of a clinician-in-charge and Kenya where pharmacists are being involved in patient education and coaching for clinical officers regarding drug toxicity and the importance of adherence. The first ever Global Conference on Task Shifting was held in Addis Ababa from 8-10 January 2008. Information can be found at http://www.who.int/healthsystems/task_shifting/en/index.html

Quality of health services: In most countries rapid assessments are used to identify potential care and treatment sites using criteria such as availability of other HIV services, capacity, infrastructure, pharmaceutical management, functionality of health information system etc. Based upon this Standard Operating Procedures (SOP) are put in place by National AIDS control programmes, often with PEPFAR support, to set minimal standards. Evaluations of SOPs in Rwanda and Ghana find them to be valuable tools in assuring uniformity and quality of ART services.

Coordination and Alignment: A study tracking the setting up of GFATM in four African countries reports an initial burden on governments as they negotiate with several different global health initiatives. Different funding mechanisms and reporting expectations often result in delays of disbursing funds (Gao, 2005). The challenge is to bring all stakeholders on board, this can mean national actors that lack of strong tradition of previous collaboration such as private sector actors, drug regulatory agencies etc and multi and bilateral donors. Role clarification remains another weak area with responsibilities between Country Coordination Mechanism of the GFATM and national coordination bodies for HIV not always clear (Gbangbadthoré, S et al, 2006). Monitoring and Evaluation is still a weak area of the global response to HIV/AIDS and the vertical nature of programmes impedes efforts to turn the “three ones” into reality on the ground.

To date the benefits from the scaling up of HIV treatment appear to have been quite limited at district level

To date, if a health system is reduced to its lowest building blocks: general planning and financial management, health staff, infrastructure, drug supply, accurate diagnosis and treatment – then the benefits from the scaling up of HIV treatment appear to have been quite limited *at district level*. A partial explanation could lie in the extent to which the roll-out has already reached district hospital and health centre level or to which this is still a process that remains ongoing. The very recognition of the limited spin-offs at district level – the heart of the health system in resource-constrained settings - is significant and can guide policy makers to make greater use of potential synergies and strengthen district health systems from now on.

5 Strategies and lessons learnt

The Commission on Macro-Economics and Health, convened by the World Health Organisation recommended “massive efforts and investment into health systems over decades” as preconditions for improving the health outcomes of the poor. The Commission predicts that “the costs of improving the health system’s infrastructure [...], of improving the performance of its workers and managers and strengthening its connections to the communities it serves [...] should become smaller than the costs of trying to work around health systems” (CHM, 2002:57).

Emerging strategies for health systems strengthening: Donors are now called upon to **invest in recurrent health system costs** such as infrastructure, maintenance and most particularly staff salaries, all of which are traditionally areas that agencies shied away from funding. Some experts advocate that the Global Fund should rise to this challenge, perhaps through the introduction of a “tax” whereby, for example, 10% on all incoming disease specific funds are used for upgrading the health care system. The nature of funding needs also to change in line with the principles of the Paris Declaration. Partner country governments need **more predictable support, for pledges to be met, timely disbursement and for finances to be “on budget” and channelled through national accounting systems**. Donors can assist with the provision of technical assistance at both national and decentralised levels in the area of financial management. Ultimately stronger financial management will facilitate efficiency, transparency and make it easier for funds to be accounted for to beneficiaries. Strategies which empower the role of communities in health facility management – such as health centre boards that jointly receive deliveries, prepare inventories etc - can play an important role.

Specifically in the area of human resources for health an overall orchestrated effort is needed to introduce **strategic human resources planning**. This includes not only estimating how many staff are needed over a timeframe of several decades, but an investment in updating pre-service training content, the use of “problem-based”/practical learning models and support for the institutions and staff that generate health staff for the system. Incentives need putting in place in a systematic, comprehensive manner that motivates staff to serve in the public sector, particularly in remote areas. Incentives for health staff that work in primary health care and are not attached to vertical programmes need to be encouraged. Malawi, for example, used Round 5 monies to hire, train and employ 4,200 additional health surveillance assistants who do not have HIV-specific responsibilities and simply there to work in community health (Mtonya, B and Chizimbi, S, 2006). More needs to be done to address the treatment needs of health care providers – including community health workers (Ojikutu, 2007).

Partnership forms a central tenant of health system strengthening

Partnership forms a central tenant of health system strengthening. Agencies are called upon not only to harmonise and align but *to engage in a long term commitment to reach shared results*. Strategies that strengthen collaboration with the private sector and NGOs are key for the achievement of Universal Access. Few public health systems can reach all those in need of HIV treatment unassisted. The Millennium Task Force Report on HIV/AIDS (Ruxin, Binagwaho & Wilson, 2005) proposes greater reliance on NGOs in health service delivery and assessments suggest that this approach is even more cost-effective (Reinikka &

Svensson, 2003). Community health workers could also be more effectively included in patient management algorithms (Ojikutu, 2007).

Use and further strengthening of existing coordination mechanisms, such as Sector Wide Approaches, is important for **wide-spread stakeholder “buy-in” and ownership**. The roles of such mechanisms vis-à-vis national AIDS commissions and Country Coordinating Mechanisms need careful clarification. Countries that are making progress in harnessing the benefits of the scale up of HIV treatment tend to be the ones where government leadership is strong and development partners share a common position and a history of using pooled arrangements and domestic systems. It is important to note that the HIV epidemic and the emerging response have presented policy makers with a hitherto unforeseen situation where both donors and partner governments were “learning by doing”. When it comes to health system strengthening Ministry of Health officials are experts on the problems and can truly lead in the formulation of solutions – donors need most importantly to listen!

Strong management at national and particularly district level in the health system is essential

Strong management at national and particularly district level in the health system is essential. Strong managers are those who retain and motivate staff, supervise those who are “acting up” to fill vacant posts, listen and feedback concerns from lower down the system to the top. If there are incentives in place then a strong manager can find his/her way to channel the additional HIV/AIDS resources to weak areas of the health system be these the referral system, logistical supply chains, drug systems, missing equipment, the state of laboratories, facility infrastructure, planned preventive maintenance or the malfunctioning of the health information management system.

Finally, **strategies to improve quality of care are required**. A comprehensive approach to quality improvement will flow naturally from stronger management. Supportive supervision that enables health workers to learn as well as mechanisms for beneficiaries to voice their dissatisfaction such as community audits comprise strategies for achieving good governance in health. In the area of HIV, the effect of treatment is greater if it is accessed early on. This calls for renewed efforts to overcome stigma and discrimination both within society and within the health sector and to see truly inclusive country processes that involve PLWHA and their communities. In particular, efforts to increase the take-up for PMTCT-plus services whereby not only the pregnant woman *but also her partner and any other siblings* are offered VCT during antenatal care as well as care and treatment as appropriate. Achieving progress in prevention of vertical transmission requires the further erosion of persisting gender inequities. These include the strong bias many health facilities demonstrate towards service provision for women and children as well as the evasive general tendency to “blame” and stigmatise women unfairly for transmitting HIV to their off-spring.

Lessons Learnt:

- Though the impact in reducing mortality rates is variable, provision of ART is associated with social & health benefits and cost savings (Brugha, 2005)
- Governments will continue to need external aid to cover the main finances for ART for several decades to come.

- Absorbing additional finances and aligning the number of new initiatives to avoid distorting national priority-setting, planning and budgeting processes is a major challenge.
- Scaling up HIV treatment depends upon improving the performance of many facets of health systems from equity and responsiveness to the integrity of sub-systems. How far this can be achieved through the scale up of ART or needs addressing as an issue in its own right is open for debate.
- Monitoring and evaluation of different agencies still seldom align and simple but effective monitoring and evaluation systems which do not unnecessarily increase existing workloads are needed. WHO, on behalf of the Health Metrics Network (HMN), is currently working on the issue of monitoring health sector performance based upon an agreed set of indicators.
- If investment is used to improve infrastructure, human resources and logistics, scaling up ART can strengthen health systems. Initiatives such as the Global Fund are increasingly open to fund general health infrastructure and human resources but barriers remain. The differences in language, priorities, concerns and even outlook between managers of disease programmes and managers of health systems need to be challenged (Collins et al, 2002).
- Training for health providers, as well as education and capacity building for communities is crucial to the success and sustainability of expanded ART programmes, but needs to be well managed and coordinated. Overall more staff are needed and strategic human resources plans a matter of priority.
- During the process of scaling up ART, operational research can be usefully undertaken; hereby health workers highlight the bottlenecks and propose workable, possible solutions.
- As the global HIV/AIDS community considers options to scale up treatment and other aspects of care for people living with HIV/AIDS (PLWHA), providing care in the home of affected people is increasingly looked to as an option. It is hereby important to differentiate between home based care (HBC) and community-based care, the later comprising all AIDS activities (not limited to in-home care) taking place outside of health facilities (His et al, 2005). Most care *inside the home* is provided by female members of the household, goes unrewarded and derives from stark necessity, whereas those active in communities are often selected by elders or through consensus, possibly in exchange for incentives in kind. Pilots that expand the role of Community based distribution (CBD) agents to assist with HBC activities (defined by WHO to include: basic physical care, palliative care, psychosocial support and counselling, treatment of tuberculosis and opportunistic infection, food supplementation) *within well functioning CBD programmes* are seen to have promise. However, the ever unfurling social consequences of HIV/AIDS increasingly sees HBC activities expanded to include the provision of care for orphans, community support groups for PLWHA, or even income-generating ventures (His et al, 2005) and it must be cautioned to recall past experiences of overloading Community Health Workers.

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In early 2006, a new research network was established as an evolution of the SWEF Research Network and the London School of Hygiene and Tropical Medicine's GF Tracking Studies. This new Global HIV/AIDS Initiatives Network will research the effects and inter-relationships of global HIV/AIDS initiatives – including U.S. President's Emergency Plan for AIDS Relief, the World Bank Multi-Country HIV/AIDS Program, and the GF – in several countries.

<http://www.ghin.lshtm.ac.uk/>

The Centre for Global Development's HIV/AIDS Monitor Program, seeks to track and analyze key features of the way aid for HIV/AIDS is allocated and disbursed, while identifying lessons relevant to broader questions about the effectiveness of development assistance. <http://www.cgdev.org/section/initiatives/active/hivmonitor>

ARVMAC is a European Union (EU) funded project is a research consortium of 7 institutions including the Swiss Tropical Institute. Its main objective is to assess the effects of the rapid scale-up of ART on resource-limited health systems, maternal and child morbidity and mortality in three Sub-Saharan African countries.

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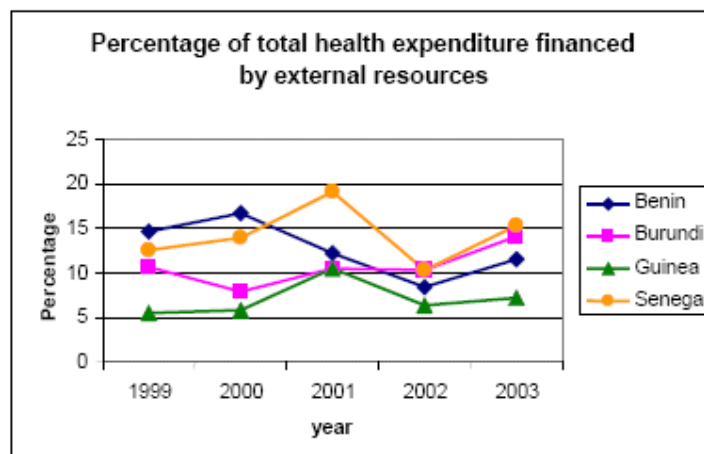
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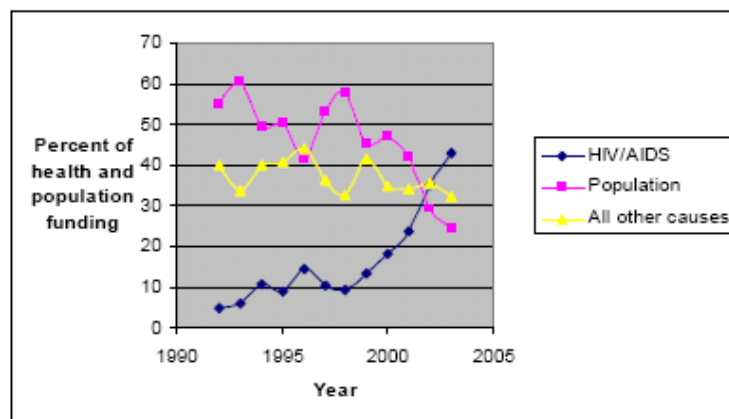
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6.1 Graphs

Figure 1



Source: (WHO, 2007)



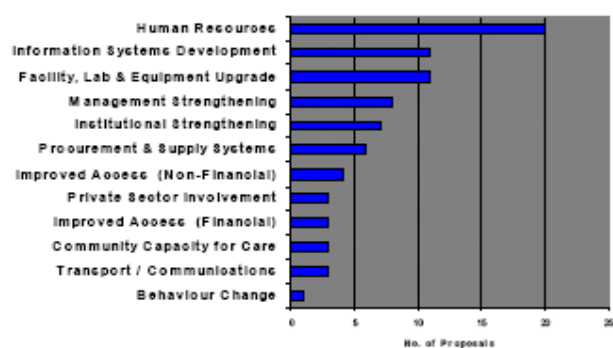
(Shiffmann, 2005)

Table: Percentage of health and population funding for six causes from all donors other than the United States reporting to the CRS, OECD:

Year	HIV/AIDS	Population	Basic Health care	Health sector capacity	Infectious disease control	Nutrition
1992	6.98	24.14	23.33	38.85	5.25	1.44
1993	1.53	13.89	25.04	42.87	4.11	12.56
1994	14.54	19.42	11.23	45.58	8.42	0.82
1995	6.84	14.28	33.64	36.84	3.04	5.35
1996	2.30	8.08	38.65	40.77	8.69	1.51
1997	2.65	19.71	11.77	46.85	16.87	1.06
1998	6.71	13.63	11.39	40.53	4.44	23.30
1999	11.66	6.85	17.95	48.33	3.18	12.04
2000	13.10	8.68	28.96	34.67	10.14	3.89
2001	21.68	12.81	24.39	32.82	7.48	0.71
2002	15.24	17.23	22.10	29.17	15.05	1.21
2003	16.00	22.55	12.22	36.89	11.03	1.30

Source: CRS database.

Country priorities as reflected in GFATM round 5 proposals:



Source: Caines, K. 2005, Bill and Melinda Gates Foundation, 2005

