

# TAP

Treatment Acceleration Program

---

Report of the

**4th Regional Advisory Panel (RAP) and 2nd Regional Clinical  
Coordination Committee (RCCC) meetings**

Accra, Ghana

18-19 January 2007

TAP Secretariat  
Economic Commission for Africa (ECA)  
Addis Ababa, Ethiopia

## Table of Contents

	<b>Page</b>
List of acronyms	3
I. EXECUTIVE SUMMARY	4
II. INTRODUCTION	5
III. STATUS REPORT	6
1. Status of implementation of the TAP in Burkina Faso, Ghana and Mozambique, including routine offer of HIV testing, PMTCT services, drug resistance monitoring, treatment adherence and patient tracking	6
2. Update on learning agenda	20
3. Experts Panel	26
4. The “After TAP”	29
5. Recommendations	32
6. Way forward	
IV. ANNEXES	

## **List of acronyms**

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti-Retroviral Therapy
ARV	Anti-Retroviral Medication
ATS	Counseling & Testing in Health Services (Portuguese abbreviation)
AU	African Union
CD4	The immune System T-cell which are destroyed by the HIV virus
CSO	Civil Society Organization
DRM	Drug Resistance Monitoring
ECA	Economic Commission for Africa
ETSDES	Expenditure Tracking and Service Delivery Survey
EWI	Early Warning Indicators
FHI	Family Health International
HAART	Highly Active Anti-Retroviral Therapy
HAI	Health Alliance International
HBC	Home-based care
HIV	Human Immunodeficiency Virus
HIVDR	HIV Drug Resistance
IP	Implementing Partners of HIV/AIDS Treatment Components
MTCT	Mother to Child Transmission
MAP	Multi-country AIDS Program
M&E	Monitoring and Evaluation
NACP	National AIDS Control Program
NCHS	National Catholic Health Service
NEPAD	The New Partnership for Africa's Development
NGO	Non-Governmental Organization
OI	Opportunistic Infection
OPEC	Organization of the Petroleum Exporting Countries
PEF	Private Enterprises Foundation
PETS	Public Expenditure Tracking System
PLWHA	Person Living with HIV/AIDS (both infected and affected)
PMTCT	Prevention of Mother to Child Transmission
PPP	Public-Private Partnership
PTS	Patient Tracking System
RAP	Regional Multi-disciplinary Advisory Panel for the TAP
RCCC	Regional Clinical Coordination sub-Committee
TA	Technical assistance
TAP	Treatment Acceleration Program
TB	Tuberculosis
UNAIDS	United Nations AIDS Program
UNGASS	United Nations General Assembly Special Session on HIV/AIDS
VCT	Voluntary Counseling and Testing for HIV infections
WHO	World Health Organization

## **I. EXECUTIVE SUMMARY**

The 3<sup>rd</sup> Regional Advisory Panel (RAP) meeting was held in Maputo, Mozambique during June 22-23, 2006, in parallel to the First Regional Clinical Coordination sub-Committee (RCCC) meeting. The focus of these meetings were on (i) drug resistance monitoring and adherence issues and (ii) patient tracking and monitoring systems.

The 4<sup>th</sup> RAP and the 2<sup>nd</sup> RCCC meetings were held jointly in Accra, Ghana during January 18-19, 2007 and provided an opportunity for the Implementing Partners (IPs) from Burkina Faso, Ghana and Mozambique to discuss progress and challenges encountered since the 2<sup>nd</sup> and 3<sup>rd</sup> RAP meetings. Each country made a presentation on the status of implementation with a special focus on PMTCT and drug resistance monitoring in their respective country highlighting: i) The situational analysis (overview of current situation with facts and figures – services provided, prevalence, people on treatment, cost of treatment per patient, and different approaches by different IPs; ii) Lessons learned; and iii) Key issues and challenges.

The meeting also benefited from experience of experts from non-TAP countries and was further enriched by an exchange of experience on XDR Tuberculosis, a great threat that emerged recently.

Finally, as the TAP is coming to an end in September 30, 2007, the issue of sustainability as it relates to long-term financing was largely discussed.

## II. INTRODUCTION

Prof. Fred Torgbor Sai, Presidential Advisor on HIV/AIDS in Ghana chaired the opening ceremony of the 4th RAP meeting held during January 18-19, 2007. He emphasized the impact treatment has made on the pandemic. He remarked that the Accra meeting was being held at an opportune time as the deliberations were going to be centered on the way forward after the World Bank funding comes to an end. He urged participants to seek answers for the burning question of “what after the TAP”?

The World Bank Country Director in Ghana, Mr. Mats Karlsson, explained that learning was central to the whole process and that everybody is constantly on the frontline of learning something new. He observed that although progress has been made over the years in the partnership, acceleration of treatment and sustainability were of paramount importance.

Mr. Israel Sembajwe from UNECA acknowledged the support of the World Bank and thanked the people of Ghana for hosting the meeting. He said TAP has brought a lot of changes and innovations but also some challenges. Mr. Sembajwe recommended that participants learn from past experience, and posed two questions:

1. What are the macro-economic implications of long time treatment?
2. Can we ensure sustainability?

He assured participants that the response was important in sustaining the fight against the pandemic.

Dr. Joachim Saweka, WHO Representative, while expressing appreciation to participants for taking part in the RAP meeting, he affirmed that TAP was a classical example of public-private partnership that could be replicated. He was gratified with the level of collaboration among countries and various organizations.

On behalf of the Health Minister of Ghana, his Deputy delivered a statement expressing satisfaction with the accelerated rate of treatment of HIV/AIDS at district level and below. He also commended the World Bank support. The Deputy Minister then urged participants to recommend ways and means of sustaining the TAP program.

Dr. Albertus Voetberg from the World Bank thanked the Deputy Minister for his statement and gave a brief overview of the TAP program. He said that some IPs started late and indicated that only 50% of the money available for the TAP had been disbursed so far. He advised that there was a need to alter some aspects of the TAP agenda to reflect the current situation. These changes, after careful consideration, could be in the areas of success measurement of the program, project objectives and in the extension of TAP closing date.

Specifically, he proposed the project development to be fine-tuned to read: "To contribute to the evidence base which will inform HIV/AIDS programs on the benefits,

risks, risk mitigation and management modalities of anti-retroviral treatment scale-up". After consideration by the participants there was no objection to this change as it better reflected the learning focus of the TAP and would align the measurement of success with such focus.

He further stated that extension of TAP closing date had to consider:

- TAP was a learning agenda
  - Necessity for data collection, cleaning, analysis and sharing of experiences and conclusion.
  - Require better preparation for the “ after TAP”. The project should initiate discussions about long-term financing.
  - Use of un-disbursed resources and the way forward.

Dr. Voetberg concluded that if a consensus was reached during the meeting and a new set of objectives was approved the World Bank will communicate them formally with grant recipients.

### **III. STATUS REPORT**

#### **1. Status of implementation of the TAP in Burkina Faso, Ghana and Mozambique, including routine offer of HIV testing, PMTCT services, drug resistance monitoring, treatment adherence and patient tracking**

##### 1.1. Burkina Faso

###### 1.1.1. Status of TAP implementation

The total population of Burkina Faso is 13,420,000 million in 2006, with an HIV/AIDS prevalence of 2% in 2005 (150,000 PLWAs). In December 2006, 11,650 PLWAs were on ART.

In preparation for the 4th Regional Advisory Panel (RAP) meeting, the period under review was the 1st three quarters of 2006 and was characterized by interventions aimed at improving activities related to: i) HIV infection prevention, ii) monitoring and evaluation, iii) preparation of PMTCT modules and guidelines, iv) voluntary counseling and testing, and v) preparation of protocols and training in integrated care and management for people living with HIV/AIDS (PLWHA).

Major activities undertaken during the period under review:

- Second Steering Committee meeting on 6 February 2006;
- WHO technical support missions for operational research (February 2006), resistance surveillance (March 2006), training of health workers and HIV+ patients in integrated management of HIV;

- Adoption and financing of 2006 plans of action for the districts and TAP implementation partners.

At this advanced stage of the implementation of the TAP, major outcomes achieved in collaboration with partners, under the coordination of the Ministerial Committee on STIs/HIV/AIDS Control of the Ministry of Health, and that of the Permanent Secretariat of the National Council for STIs/HIV/AIDS Control, may be summed up as follows:

**Voluntary counseling and testing (VCT):** The number of VCT centres rose from 95 at the end of the first quarter of 2006 to 114 during the third quarter 2006, i.e., a 20% rise over the period, with TAP contribution in 69 centres. The number of people tested at these centres increased four-fold from 25,510 in the first quarter of 2006 to 105,908 in the third quarter of 2006, with 61% contribution from the TAP program.

**ARV treatment for HIV patients:** The number of treatment facilities (health districts), including associations, increased from 51 in the first quarter 2006 to 60 in the third quarter 2006. The number of persons living with HIV on ARV rose from 9,538 to 11,650 in the third quarter 2006, with TAP contributing 38% of the ARV administered. In terms of coverage, the number of health districts involved in treatment increased from 31 to 36, including those benefiting from TAP.

**Psychosocial and nutritional management:** AIDSETI, CICDOC and the NGO Saint Camille have provided psychosocial and nutritional support at various levels, and contributed to improve patients' care and management.

#### *Next Steps*

- Procurement of material and financial resources;
- Equip facilities involved with the equipment needed and organize training, etc.;
- Start study on ARV resistance in 2007;
- Genotyping of samples in January 2008;
- Organize a feedback workshop in June 2008.

#### *Lessons learned*

- Capacity building of the various TAP beneficiaries is ongoing and has proved helpful in improving management of PLWHA.
- Associations and the NGO Saint Camille have increased their interventions to improve access to ARV treatment.
- Integrating treatment is effective and involves all levels of the health pyramid.
- Greater collaboration among Associations and public health institutions.
- Documentation of the TAP contribution started by WHO.

### Future plans

While remaining constantly in synchronization with the 2006-2010 AIDS control strategic framework, emphasis will be laid on extending adult and paediatric treatment as part of universal access to care, extending PMTCT through skills enhancement, intensifying prevention efforts, strengthening collaboration between public health facilities, associations and NGOs involved in the TAP, integrating VCT into public health facilities and operational research, and implementing resistance surveillance in the course of the year 2007.

The table below summarized the TAP contribution using indicators in key areas of the TAP.

Summary of indicators according to key TAP areas

		Baseline End 2004	Findings as at 30 March 2006 (T1- 2006)	Findings as at 30 September 2006 (T3- 2006)	TAP contribution
<b>VCT</b>	Number of health districts with at least one VCT centre	22	32	37	61%
	Total number of VCT centres	56	95	114	
	Number of VCT persons tested (i.perf 1):		25,510	105,908	
	- Proportion of women: - No. of youths under 25 years			54.5%	
<b>PMTCT</b>	Proportion of districts with at least one PMTCT	14	37	45	47% (21/45)
	Total number of PMTCT centres	63	176	221	82%
	Number of women seen at antenatal clinic and tested		15,831	33,150 (cumulative from T1 to T3-2006)	
	- Number of mother-child pair on ARV prophylaxis (i. perf 3): - Number of mother-child pair on ARV		856	960	
<b>ARV Treatment</b>	Number of health districts with at least one ARV treatment centre	11	31	36	56%
	Number of facilities providing treatment and management (i. Perf 8):		51	60	53%
	Total number of PLWHA on ARV treatment ARV (i. Perf 4): - Proportion of women	3,867	9,538	11,650	38.%
	Number of persons receiving IO prophylaxis/treatment - Proportion of women (i.perf 2): - *No of youths under 25 years		20,677	28,785	
<b>ARV Treatment (cont'd)</b>	Number of persons receiving home care (i.perf ;6): -Proportion of women -Number of youths under 25 years		1,634	5,342	53%

	Number of ongoing operational research activities (i.perf ;11):		1	2 (ongoing)	2 (2006)
--	---	--	---	-------------	----------

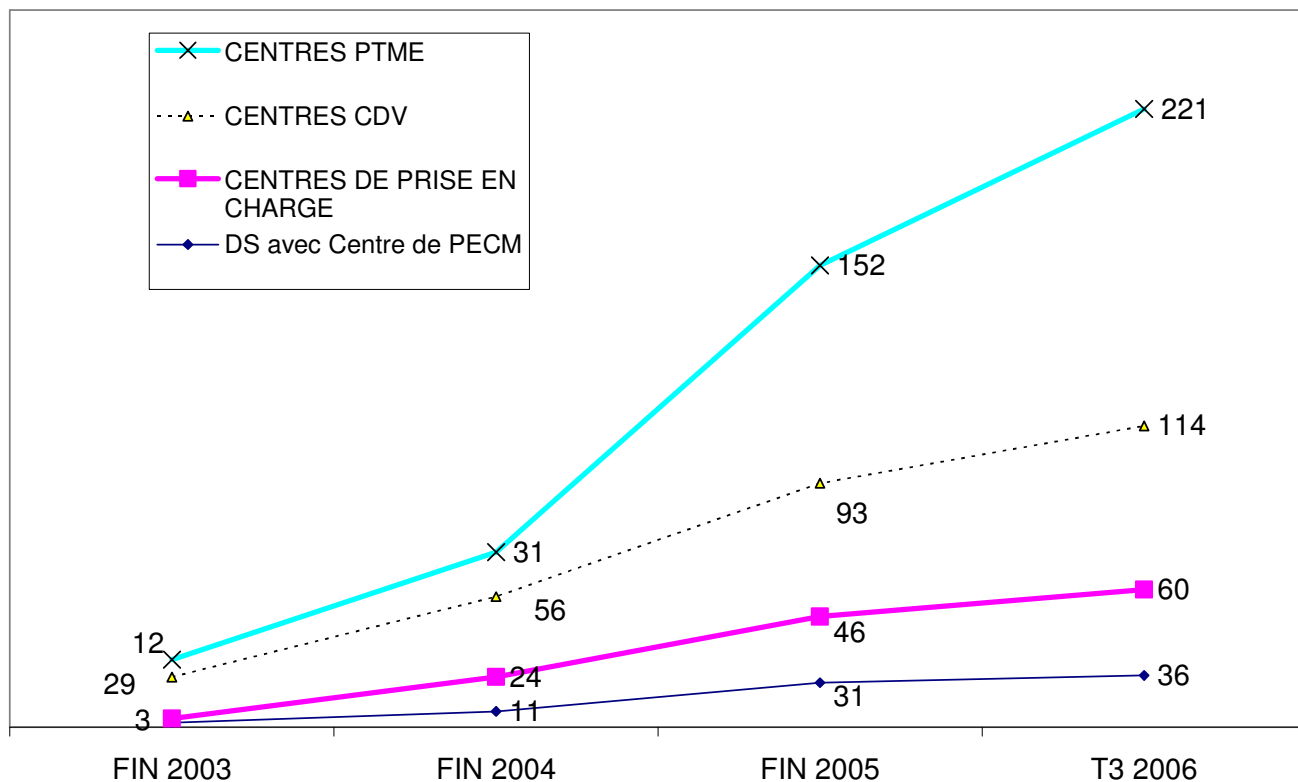
### 1.1.2. PMTCT update

The number of PMTCT sites increased from 172 in the first quarter of 2006 to 221 in the third quarter of 2006 and accounted for 47% of the TAP contribution. New PMTCT/HIV strategies have been adopted, which include organizing testing services at treatment sites, with:

- Testing at the various treatment points in the health facilities;
- Whole blood testing, using rapid tests;
- Drawing up the new 2006-2010 program, with the changes below:
  - Adoption of “opt out” approach for testing;
  - On-site rapid testing;
  - More efficient ARV protocol with triple prophylaxis: AZT+3TC+Nevirapine;
  - Early testing (PCR) for children born of HIV+ mothers;
  - Cotrimoxazole for HIV-infected pregnant women.

The graph below summarized the trend in VCT, PMTCT and ARV treatment coverage in Burkina Faso from 2003 to the 3rd quarter of 2006.

Trend in VCT, PMTCT and ARV treatment coverage in Burkina Faso from 2003 to 3<sup>rd</sup> quarter 2006



### 1.1.3. Drug resistance monitoring update

Burkina Faso has no laboratory capacity for genotype sequencing, therefore samples are sent to an accredited laboratory abroad. Studies were conducted since 2002: A first one in Mali and Burkina Faso showed that 13% of the samples from Burkina had been affected by therapeutic failures. A second study conducted on a naïve population in two centres (Centre Médicale Saint Camille and Centre Muraz), and two other studies carried out at the Centre Hospitalier Yalgado Ouedraogo and the Centre Muraz showed that 19 to 24% resistance had been found in a sample of 50 women.

A resistance monitoring technical committee was set up at the end of the first half of 2006 and a drug resistance surveillance protocol finalized. The summary of the protocol content was presented and comprised the following items: i) rationale, ii) objectives, iii) study population and methods, iv) training, v) interpretation of findings, vi) use of findings, and vii) activity timetable and budget.

Eleven (11) MCH sites will be involved in the study, and a WHO-accredited laboratory will be approached for the genotype sequencing. The findings of this resistance monitoring will help to rectify the lines of treatment, where appropriate, and in decision-making related to patients' treatment. The budget for resistance monitoring is estimated at about US\$326,477.63.

The staff is available but equipment and material are inadequate for immediate implementation and skills need to be upgraded.

Activity timetable for drug resistance monitoring

ACTIVITIES	PERIOD
1. Protocol validation workshop by CT/SE	12/2006
2. Financial resource mobilization	12/2006 – 02/2007
3. Procurement of reagents, consumables and equipment	05/2007
4. Stakeholder training	04–05/2007
5. Field survey in process	06–11/2007
6. Sample genotyping	01/2008
7. Supervision	06–11/2007
8. Data entry and processing	07/2007–02/2008
9. Drafting and transmission of report	03/2008
10. Assessment workshop	04/2008
11. Validation workshop	05/2008
12. Feedback workshop	06/2008

Burkina Faso: Drug resistance surveillance protocol Budget

AREA	ESTIMATE
Consumables	24,225,385
Reagents	7,413,040
Equipment	54,881,072
Transport of samples to Ouagadougou	1,268,800
Stakeholder training	33,150,000
Genotyping	20,890,000
Design of database and processing	500,000
Supervision	6,891,520
Report drafting workshop	1,020,000
Reproduction of documents and distribution of findings	1,575,000
Validation workshop	4,080,000
Assessment workshop	3,944,000
Feedback workshop	3,400,000
<b>GRAND TOTAL</b>	<b>163,238,817</b>

## 1.2. Ghana

### 1.2.1. Status of TAP implementation

The total population of Ghana is over 20 million, with an HIV/AIDS prevalence of 2.7% in 2005 (270,000 PLWAs). Out of the 53,000 people in need of treatment in 2005, 6,200 were on ART as of September 2006.

Ghana reported that the Private Enterprise Foundation (PEF) has officially joined the Family Health International (FHI) and the National Catholic Health service (NCHS) as an Implementing Partner of the TAP since September 2006. PEF main role is to mobilize the private sector to support HIV treatment and care activities and to raise awareness. It has already conducted a baseline survey of businesses. According to the survey, only 15% of companies surveyed have HIV/AIDS workplace policies. About 90% of respondents believe that HIV/AIDS negatively impacts businesses but only 14% are ready to increase their budgetary support for HIV/AIDS activities. Thus, the need for programs to mobilize management support for HIV-related activities, galvanize private sector budgetary support, sensitize employees and communities on HIV prevention, treatment and care.

During the 3<sup>rd</sup> RAP meeting, last June 2006, FHI reported that 38 patients were on ART. In December 2006, the number of patients on ART has increased to 148. NCHS only began providing comprehensive care in July 2006 but as of September 2006 it has put 49 patients on ART.

	<b>FHI (December 2006)</b>	<b>NCHS (September 2006)</b>	<b>PEF</b>
<b>VCT</b>	878	1,509	----
<b>PMTCT</b>	1,284	4,372	----
<b>OI</b>	256	327	----
<b>ART</b>	148	49	----
<b>HBC</b>	----	370	----

Strengthening the institutional capacity of the Ministry of Health to scale up HIV care is ongoing in Ghana. TAP is supporting the Technical Working Group on ART and the setting up of HIV drug resistance monitoring system. WHO is playing a key role and has recruited 2 additional Technical Officers (total of 3 as of now) to provide technical support to the National AIDS Control Program. In addition, WHO is providing technical assistance for the adaptation of IMAI training manuals and the drawing up of the HIV drug resistance monitoring protocol.

The regional learning mechanism remains an important tool for the Ghana TAP and is done through participation in RAP meetings, documentation of lessons from TAP implementation, PEF contribution to TAP learning agenda and participation in household surveys.

The table below summarizes the TAP contribution using indicators in key areas of the TAP.

Ghana: Indicators in TAP key areas

		Baseline at the end 2004	Results reached at the end of 2005	TAP contribution in 2006
<b>VCT</b>	Number of Health District with at least 1 VCT centre	40	82	131
	Total number of VCT centres	59	145	341
	Number of people tested - Proportion of women: - Number of young people below 25	15,490	45,536	144,856
<b>PMTCT</b>	Proportion of districts with at least 1 PMTCT centre	52	82	131
	Total number of PMTCT centres	52	138	327
	Number of women seen and tested during antenatal care	8,490	20,296	36,155
	- Number of mother-children under PMTCT treatment - Number of mothers under ARV	----- 493	----- 1,078	N/A 1,239
<b>ARV treatment</b>	Number of health districts with at least one ARV centre	3	4	32
	Number of structures providing treatment and care	4	5	46
	Total number of PLWAs under ARV - Proportion of women	2,028	4,060	7,338
	Number of people benefiting from prophylaxis/OI treatment* - Proportion of women - Number of young people under 25	4,054 2,360 N/A	9,396 5,938 N/A	15,563 N/A N/A
	Number of people receiving home care -Proportion of women - Number of young people under 25	N/A	N/A	649
	Number of operational research activities undergoing	N/A	N/A	N/A

\*N/A – not available

### Challenges

Challenges reported in Ghana are the following:

- In private sector facilities under the TAP there are mainly three challenges: i) the synchronization of activities with the National Program, ii) capacity building at TAP sites, and iii) the uncertainty about the “after TAP”.
- In the public sector, the main constraints are the delay in procuring equipments and other issues related to logistics.
- The late signing on of PEF has created considerable delay in the implementation of its activities under TAP. Hopefully, it will be able to catch up with the other IPs, especially if the TAP could be extended beyond September 2007.
- Taking advantage of WHO technical support has been challenging but a lot of effort has been deployed to bring about change.

### *Way forward*

The Ghana TAP continues its comprehensive HIV care roll out in TAP sites and is documenting its learning experiences.

The household survey will be moved forward and will enable a better appreciation of the benefit of the TAP and assess its socio-economic impact in the country.

The Ghana TAP will increasingly call on WHO for technical assistance, especially as far as drug resistance monitoring is concerned. Moreover, WHO will be instrumental in completing the IMAI manual for training and to set up a national monitoring and evaluation (M&E) system.

#### 1.2.2. PMTCT update

Since the 2<sup>nd</sup> RAP meeting held in December 2005, Ghana has adopted a new PMTCT strategy.

Routine offering of HIV testing to all pregnant women as part of the initial and subsequent antenatal care (ANC) visits is now practiced. If women do not object to the offer, counseling and testing are undertaken by Counselors (usually nurse providers at ANC) at the site. Routine offer of testing has been beneficial, as it has increased the PMTCT uptake in the last quarter of 2006.

All HIV-infected pregnant women are evaluated using the CD4 count. Where there is no CD4, the evaluation is done using the WHO clinical staging.

If the CD4 count is below 350, irrespective of the clinical stage, the patient is treated with Highly Active Antiretroviral Therapy (HAART). Similarly, all HIV positive pregnant women with WHO clinical stage III and IV (irrespective of CD4 count) are treated with HAART. If the CD4 count is above 350, the patients are given ARV prophylaxis from 28 weeks.

Infants born from HIV+ mothers are given single-dose nevirapine within 72 hours of delivery plus one week of zidovudine/lamivudine twice daily. Where mothers received less than 4 weeks of prophylaxis, the infants' zidovudine/lamivudine is extended to six weeks.

Ghana is currently updating its guidelines and training modules, with a new emphasis on i) specific interventions to prevent MTCT, ii) HIV counseling and testing for PMTCT, iii) Infant and young child feeding in the context of HIV infection, iv) stigma and discrimination related to MTCT and v) linkages between treatment, care and support for mothers, their partners and families with HIV infection.

All counselors and midwives, already trained or untrained, will be trained to the new PMTCT directions in the course of 2007.

## *Challenges*

- Organizing training for all the health personnel involved in PMTCT.
- Re-organizing ANC services to provide more space for testing and respond to the new demands as efficiently as possible.
- Making linkages between antenatal clinics, child welfare clinics and ART sites.

### 1.2.3. Drug resistance monitoring update

A national expert committee on HIVDR was formed in July 2006 with a mandate to: i) provide technical assistance ii) develop and implement a work plan, and iii) build capacity (site training, guidelines and manuals review and adaptation of protocols). The committee developed a detailed national HIVDR strategy, with the technical assistance from WHO. The strategy was reviewed and is now being finalized.

With regard to HIVDR prevention, a well thought out ART scale-up plan involving capacity building, provision of drugs according to national guidelines, site accreditation etc, was necessary and Ghana has developed one which is currently being followed.

The committee has also agreed on HIVDR Early Warning Indicators (EWI) to be monitored. Planned activities include:

- Develop national targets for EWIs set in November 2006;
- Data systems and managers set up at sites in December 2006;
- Data managers trained and all staff sensitized by January 2007;
- Data collection to begin by March 2007;
- Data from all sites to be collected, collated and analyzed by June 2008;
- Meetings to be organized for the dissemination of information on EWI.

With regard to the surveillance of transmitted HIVDR, a draft protocol was developed and a site assessment done in 2 pilot facilities. However, capacity needs to be built in operational procedures for surveillance and a genotyping laboratory still needs to be identified. A surveillance initiation has been planned during the 2007 HIV sentinel survey.

Ghana will start monitoring HIVDR emerging in cohorts starting ART by December 2007 and will seek technical assistance for the development of the country protocols. Five (5) sites have been identified and training manuals and guidelines will be developed by March 2007. A cohort will be recruited and followed for one year and results will be collected for analysis by December 2008.

In order to perform the above-mentioned activities there is an urgent need to build capacity:

- A genetic analyzer has already been procured courtesy of TAP;
- An HIV genotypic methodology will be established by October 2007;
- Links with at least one HIVDR ResNet laboratory for QA/QC will be established;
- Staff capacity will be built by October 2007;
- An inspection for accreditation as a ResNet laboratory will be requested by December 2007;
- HIV sequencing to detect HIVDR will begin by March 2008;
- An assessment of the laboratory will be requested by December 2008 for accreditation as an HIV ResNet laboratory.

Documenting HIVDR activities in Ghana is important therefore regular reports will be done on:

- The HIVDR situation in Ghana;
- The contributing factors to HIVDR;
- Recommendations for ART and HIV prevention and implementation program adjustments;
- Surveillance and monitoring planning for the following year.

These reports will contribute to both regional and global databases on HIV drug resistance monitoring.

#### 1.3.1. Mozambique

##### 1.3.1. Status of TAP implementation

The total population of Mozambique is 19 million, with currently about 1,7 million people (16.2%) infected. As of December 2006, 150 sites were offering ART to 44,100 PLWHA, which represents 16.3% of the 217,317 PLWHA in need of ART. The percentage of women and men receiving ART is 58% and 41% respectively. Sites co-financed by TAP represent 35% of total patients on ART.

Recent developments in Mozambique are the following:

**VCT:** There was a transition from “VCT” to “ATS” (Portuguese abbreviation: Counseling & Testing in Health Services) concept sites that provide counseling and testing not exclusively on HIV/AIDS but also on other chronic/common diseases. This new concept aims at reducing stigma for people going to testing centers and has allowed capturing more people.

**OIs:** With regards to Opportunistic Infections (OIs), an evaluation of training requirements for Clinicians has been done, and a working group has been set up. Furthermore, laboratory facilities in the provinces are being expanded and capacity for procurement of OIs drugs is being strengthened.

**Procurement:** Regarding procurement of ARVs and equipment, Mozambique reported that there is no stock out and procurement of supplies and equipments for laboratories, blood banks, and drugs for OIs are still ongoing.

**Training:** The following trainings are currently ongoing:

- Post exposure prophylaxis and Kaposi at the provincial level
- ART for clinical officers and trainers in all training institutes
- Bio-safety for nurses and helpers
- Logistic and dispensing of medicines for all pharmaceutical staff
- M&E in all treatment sites and trainers in all training institutes

**M&E:** A national meeting was held to revise the M&E tools and suggestions incorporated in the new tools. Moreover, a patient tracking system working group has been tasked to review variables and indicators to be reported by all implementing partners. In addition, there was an introduction of a WHO system for cohort analysis to be adapted.

### *Challenges*

- Consolidate ART expansion with quality assurance;
- Limited resources (human, infrastructure, laboratory support, etc);
- Monitoring of resistance;
- Logistics for OIs and Kaposi Sarcoma drugs;
- Sustainability issue of the TAP after September 2007.

### *Lessons learned*

Mozambique has learned that integration of services increases efficiency, reduces taboos, and as a result, increases the demand for testing and treatment.

The other lesson is that additional funds help in strengthening managerial capacity at the provincial, district and facility levels and help in increasing the number of beneficiaries at the rural and poor areas.

Lastly, when the public-private partnership is done in a coordinated manner, the capacity of an entire health system is strengthened. The table below summarizes the TAP contribution using indicators in key areas of the TAP.

**Mozambique: Indicators in TAP key areas**

		<b>Baseline at the end 2004</b>	<b>Results reached at the end of 2005</b>	<b>TAP contribution in 2006</b>
<b>VCT</b>	Number of Health District with at least 1 VCT centre	N/A	67	
	Total number of VCT centres	113	223	
	Number of people tested	294,567	685,239	
	- Proportion of women: - Number of young people below 25	67% 118,324	61% 305,749	
<b>PMTCT</b>	Proportion of districts with at least 1 PMTCT centre	N/A	N/A	
	Total number of PMTCT centres	51	88	
	Number of women seen and tested during antenatal care	46,583	99,835	
	- Number of mother-children under <sup>1</sup> PMTCT treatment	3,182 (m) 3,335 (c)	7,690 (m) 5,437 (c)	
	- Number of mothers under ARV	197	554	
<b>ARV treatment</b>	Number of health districts with at least one ARV centre	17	30	
	Number of structures providing treatment and care	23	39	
	Total number of PLWAs under ARV	6,500	19,754	
	- Proportion of women	N/A	54,7%	
	Number of people benefiting from prophylaxis/OI treatment <sup>2</sup>	N/A	N/A	
	- Proportion of women - Number of young people under 25			
	Number of people receiving home care	11,355	27,582	
	- Proportion of women	N/A	N/A	
	- Number of young people under 25			
	Number of operational research activities undergoing	N/A	9	

### 1.3.2. PMTCT update

In June 2006, there were 142 PMTCT sites in Mozambique where 76% of the pregnant women were counseled and tested. 14% of those tested came out positive. 85% of those tested positive received prophylaxis and about 2% of them were put on ART. It is unclear why the other 15% who tested positive were not put on prophylaxis but the most likely reason is that they were lost in follow-up.

#### Recent PMTCT developments:

- Opt-out counseling and testing approach in the context of PMTCT;
- Group pre-test counseling at ANC;
- Blood drawn for testing and CD4 interpretation available at ANC sites (no need to go to other lab);
- Initiation of single dose nevirapine (SVP) at 28 weeks instead of previously at 36 weeks; also added AZT to SVP for HIV+ pregnant women;
- Infants received prophylaxis with nevirapine.

<sup>1</sup> Current PMTCT monitoring systems in Mozambique provide information on individuals (mothers or babies) who are given ARV prophylaxis but not on those cases where both the mother and her newborn child together receive prophylaxis. It is therefore impossible to calculate exactly the percentage of HIV-positive pregnancies in which a complete (i.e. to both mother and child) ARV prophylaxis is provided.

<sup>2</sup> In process of revision of the log book and monthly reporting form in order to capture this information.

Recent developments on TB testing:

Mozambique went from the opt-in to opt-out testing for TB patients. This approach has greatly increased the uptake of testing for TB patients. 71% of TB patients who took the test came out HIV+. 91% of these received CTX prophylaxis, 55% went to HIV clinics for further treatment and 14% were initiated on HAART.

A big drop was noted between TB patients testing positive and receiving CTX at TB sites compared to people going for follow-up care and getting put on ART at HIV clinics.

### 1.3.3. Drug resistance monitoring update

A National HIVDR working group responsible to study **drug resistance and monitoring** was set up in 2006. Its main role is to ensure that the HIVDR strategy will focus on monitoring of HIVDR arising in populations starting and continuing ART. The group will identify and agree on HIVDR EWI adapted to the Mozambican context. However, the ART information system needs to be updated by collecting information on: i) prescribing practices, ii) % lost to follow up, iii) % of persons starting first-line ART and still taking first-line ART one year later, iv) simple adherence measures, v) appointment keeping, vi) drug supply continuity and vii) drug quality.

Monitoring and surveillance of transmitted HIVDR will be done using the threshold survey (TS) method (protocol to be cleared by the Ethics committee). It will focus on specific geographic areas with sufficient specimens available for TS to be done in 2007-2008.

A database will be developed for HIVDR surveillance and monitoring and annual HIVDR reports and recommendations will be written.

#### Example Mock Budget HIV Drug Resistance Surveillance and Monitoring

##### Year 1

1. **Surveillance of HIVDR Transmission:** Total est. = \$25,000 per site if done with HIV surveillance – includes specimen shipping and genotyping costs)
2. **Monitoring of HIVDR in ART:** Total est. = \$50,000 setting up first protocol and site then \$100,000 per sentinel site (including VL 250 X \$25? Plus genotyping 150 X \$300, shipping \$\$? Etc.)
3. Technical Assistance: (Total: \$55,000 e.g. visiting consultants)
4. Development of National HIVDR Database: (Total: \$20,000) Dedicated computer, Software and Training provided by WHO.

##### Year 2

###### Scenario 1: If No or little evidence of HIVDR transmission (i.e. <5%)

1. Repeat HIVDR Transmission Surveillance (\$25,000)
2. Monitoring HIVDR (Continue site 1 cohort- \$75,000, Add second site – \$100,000)
3. Repeat Technical Assistance, HR, and National HIVDR Database as above

###### Scenario 2: If evidence of HIVDR transmission (>5%) or emergence of ART

1. Add Surveillance sites (2 total sites=1 from Year 1+1 additional sites) (\$50,000)
2. Monitoring and other items same as Scenario 1

##### Year 3,4,5 (details in GFATM Proposal)

## 1.4. Discussions

### *Policies on CD4 tests*

The issue of policies on CD4 test levels and confirmation tests in each country was raised and Ghana reported that a CD4 count is done on all pregnant women testing positive in addition to an oral confirmation of positive rapid test. HAART is provided to pregnant women with a CD4 count below 350. Mozambique also does second confirmation test for positive test result, and provides HAART for CD4 count below 350. Burkina Faso, on the other hand, does not do routine CD4 for positive pregnant women. It is only done if stage II, III and IV symptomatic diagnosis and treatment is initiated when the CD4 count is below 250.

### *Ethical issue related to testing*

Some participants raised the ethical issue of having tests done by counselors or nurses at ANC sites, rather than by laboratory technicians. In Burkina Faso, laboratory technicians train the ANC counselors on HIV testing and do on-site monitoring and supervision for quality assurance. This allows them to be part of the process and reduces possible tension and ethics issue.

In Ghana, this is a policy directed by MOH. Initially, it has created problems in some areas and tensions exist in practical implementation. Ghana is trying to resolve the issue by involving laboratory technicians in the quality assurance of testing done by Counselors. In terms of ethical considerations of doing routine opt-out testing, it does not apply in Ghana's case since this is a routine "offer" and there is no discrimination or stigma attached if pregnant women refuse the test.

In Mozambique there is no real problem since there is already a built-in relationship between the pregnant women going to ANC and the ANC nurses. This has allowed to built confidence and trust and made it more acceptable for ANC nurses to do testing. It also resulted in less resistance to opt-out. Opt-out policy has been a positive as women still have the option to refuse the test. Also, as more women are better informed about their options, there is greater acceptance.

### *Infant testing in Mozambique*

The question was posed to Mozambique as to the way rollout of PCR strategy was achieved and the kind of system in place for early identification and diagnosis of infants and follow up of those who don't come at 18 months. Mozambique reported that they put systems in place for testing and tracing infants at 18 months. Specific programs allow special consultations for children-at-risk and all HIV+ infants are referred to these programs for follow-up. If they don't come for their scheduled follow-up care, the centers have the capacity to track the family within the community to ensure that they receive proper care and 18-month check up.

## **2. Update on the learning agenda**

### **2.1. Health Training Survey - Burkina Faso**

#### **INTRODUCTION**

TAP is a pilot program which aims to improve access to anti-retroviral treatment (ARV) for persons living with HIV/AIDS. It was launched in 2005 for a three-year period in its initial phase and focuses on Burkina Faso, Ghana and Mozambique.

In Burkina Faso twenty two (22) districts were identified, equipped and strengthened in order to implement the TAP activities. TAP helps to procure ARVs medication and provide support to public health facilities or those managed by NGOs and a network of PLWAs.

After one year of implementation it appeared necessary to determine, on the one hand, the impact of the availability of ARVs on the functioning of health facilities and, on the other, to understand determinant factors of surveillance such as information, socio-economic variables, quality of care provided and community variables.

#### **SPECIFIC OBJECTIVES**

The objectives of the survey are to:

- (a) Describe characteristics of the health facilities, and constraints on medical practice;
- (b) Identify factors that determine the quality of HIV/AIDS services by comparing services provided by associations, public and private health facilities; and
- (c) Identify determinant surveillance factors.

#### **METHODOLOGY**

These objectives were achieved through a comparative survey. A sample of health facilities and associations delivering ARVs was compared to a sample of health facilities considered as a “control group” which were identified among those not providing ARVs. The heads of these facilities were interviewed, documentation was reviewed and a survey care providers and users of the health facilities was conducted.

#### **SAMPLE**

All public health facilities and associations providing ARVs and comprising at least 100 patients on ARVs were included in the study. It was then extended to all facilities providing ARVs. The selection of these health facilities and associations was

well thought through and a total of 44 health facilities and associations were surveyed (9 associations, 3 denominational, 1 private and 31 public facilities).

In each of these health facilities, the following people were interviewed: service providers, namely Head of the health facility, Head of the human resources department, Head of the pharmacy, Head of the finance department, Head of the HIV/AIDS department, Head of the laboratory department, Head of the TB department, Head of the VCT department and Head of the PMTCT department. A random sample of five (5) PLWAs coming out of consultation for follow-up and five (5) patients coming out of general consultation were also interviewed.

## INFORMATION COLLECTED

Data were collected using the following indicators:

- (a) Characteristics of the health facilities and constraints on medical practice;
- (b) Human resources: an evaluation of staff strength and their qualification, as well as staff movements;
- (c) Factors determining the success of treatment (impact on attitudes, training and motivation of health professionals);
- (d) Efficiency of referral systems;
- (e) Efficiency of procurement channels;
- (f) Cost and cost-effectiveness of treatment norms;
- (g) Determinant surveillance factors;
- (h) Level of community involvement, as well as costs and benefits of this involvement; and
- (i) Optimum time to initiate treatment to reinforce surveillance.

## PRELIMINARY RESULTS

The results of the Survey was as follows:

- (a) With regard to human resources, the male/female ratio was higher in the public sector, with more than 78 per cent of the staff assigned to medical services;
- (b) The reason most often indicated for going to VCT was voluntary in 73 per cent of cases;

(c) Forty-four per cent of children from sero-positive mothers were tested and ARVs often prescribed for PMTCT was only *Nevirapine* (83 per cent; the medication also was given to the patients during the delivery;

(d) Cost analysis confirmed higher cost of services in the private sector even for care of PLWAs. But cost of care for PLWAs was less in the public sector and associations. However, a greater part of these costs was related to transport, hence the need to improve geographical access; and

(e) Regarding the quality of services, a quantitative and qualitative evaluation shows a better quality of care for ARV adherence, with higher level of satisfaction of patients who are consulting for ARV care. However, the waiting time at the facilities needs to be reduced.

## 2.2. Public-Private Partnerships (PPP) in Burkina Faso

### BACKGROUND AND OBJECTIVES:

BroadReach Healthcare (BRHC) has been contracted to perform an evaluation of the TAP program in Burkina Faso. The evaluation is being conducted against four key performance criteria as spelled out in the Terms of Reference (TOR): governance, performance, cost and sustainability.

BRHC was invited to the meeting in Accra to present its evaluation methodology and some preliminary results. This document therefore summarizes the methodology used for the TAP evaluation, highlights progress to date, and discusses some preliminary findings.

### METHODOLOGY:

Data is collected through interviews with representatives of key stakeholder organizations ranging in role from leadership and technical advisor to on-the-ground treatment provider. Interviews comprise two parts: a detailed interview/questionnaire and a quantitative stakeholder survey. Twenty-two interviews will have been conducted.

### TOOLS & ANALYSIS:

Three tools were developed by BRHC specifically for this project:

1. A detailed Interview Questionnaire;
2. Stakeholder survey (Quantitative);
3. BRHC Evaluation Tool (Quantitative).

Category	Weight	Score
<b>Governance</b>	30%	
<b>Performance</b>	30%	
<b>Cost</b>	25%	
<b>Sustainability</b>	15%	
<b>Total</b>	100%	100

The Interview Questionnaire was developed to get detailed qualitative and quantitative information from key stakeholder representatives across all four evaluative

categories. This tool permits the interviewer to select questions appropriate to the participants sphere of experience and expertise. The Interview Questionnaire takes an average of 45 minutes to complete. The Stakeholder Survey contains 23 statements about program performance. Participants are asked to indicate the degree to which they agreed or disagreed with statements pertaining to performance. This tool was designed to quantify a more subjective view of the TAP program in Burkina Faso, and provide a point of comparison with the objective BRHC Evaluation score (see below).

Once data is collected through interviews and review of all key program documents, the BRHC Evaluation Tool is applied to the findings. This tool converts qualitative findings into a quantitative score by establishing benchmarks and targets for each evaluative category, against which the Burkina TAP is compared. A total score for each category is then assigned and weighted appropriately, yielding an overall program performance score (see table).

#### PRELIMINARY FINDINGS:

##### Governance:

- Management and Coordination Mechanism in place: Comité de Pilotage;
- Program is largely integrated into the MOH and has permanent structures or utilizes pre-existing MOH structures;
- Contracts are valid, partner-specific and detail activities and budgets;
- Input on decisions solicited from all stakeholders.

##### Performance:

- Stakeholders generally very happy with the program;
- Current enrollment trajectory means goal of 7000 patients by end of 2007 can be achieved if capacity building efforts are maintained:
  - Dec 2005: 1562 (19% of country total)
  - Sept 2006: 4452 (38% of total)
- The TAP has enabled skills transfer between sectors (Adherence, Management and Accounting);
- Due to the high level of integration, it can be difficult to differentiate between impact attributable to the TAP and those of the government/Global Fund;
- No stock outs of ARVs; some challenges with procurement for reagents and drugs for opportunistic infections.

##### Cost:

- The TAP has engendered greater collaboration;
- Due to integrated nature of the program, TAP Program costs generally indistinguishable from government ARV program costs;
- Variable out-of-pocket patient costs: ranges from zero (free) to CFA5,000 (~\$10) per month for ARVs within the program.

## Sustainability:

- Embedded nature of TAP within the MOH, clear need, and general satisfaction among stakeholders provides good prognosis for the program if financing can be secured over the long term;
- Civil Society partners not yet able to generate/secure funding collectively or individually;
- Critical need to ensure financing for treatment beyond 2007 (maintenance of existing patients plus scale up).

## STEPS TO COMPLETION OF EVALUATION:

- Conduct workshop with stakeholders to review results, answer any outstanding questions and solicit feedback on Final Report;
- Write and submit Stakeholder Workshop Report;
- Finalize and submit final Burkina Faso TAP Evaluation Report.

### 2.3. Addressing care and support of PLWHAs served by private health insurance schemes in South Africa: the Aid for AIDS experience

Out of a population of 47.4 million people, 6.83 million have access to private health insurance, mostly subsidized by their employers. Approximately 60,000 PLWHAs obtain HIV care (including HAART) at no additional cost through these schemes. Aid for AIDS (AfA) is a Disease Management Program (DMP) contracted by a number of health insurers and companies to ensure that their HIV benefit is properly utilized, that evidence-based treatment and monitoring is applied and that there is comprehensive patient and doctor support, data analysis and reporting. About 31 000 people covered by private health insurance are managed by AfA.

In addition to the private sector DMP, AfA provides HIV management services to donor-funded (e.g. PEPFAR) organizations to provide treatment to uninsured people in parallel with the Public Sector HIV treatment program. These include a further 1500 people.

Clinical outcome data gathered over the last 9 years confirm an excellent immunological and virological response to HAART. Survival data show the expected improved outcomes if treatment is commenced at a CD4 count of 200 – 350 and mother-to-child transmission rates are around 1% with HAART given after the first trimester coupled with caesarian section and formula feeding.

Treatment costs relative to enrolment on AfA remain stable after 6 years at around \$200 per month (total healthcare costs including HAART). Data from one large health insurer show that the percentage of total healthcare expenditure related to HIV+ covered lives (about 3% of total covered lives) is stable at around 10% for the last 3 years, despite increasing numbers joining the program.

Factors threatening sustainability of funded HIV care include:

- Few HIV+ people appear to be aware of their HIV status;
- Denial, fear of disclosure and stigma discourage people from accessing care (only about 25% access the care to which they are entitled);
- >50% present late (CD4 <200) and so hospitalization rates remain high;
- Adherence, despite intensive education and support, remains a problem;
- There is poor collaboration between the public and private sectors;
- Increasing numbers of people requiring complex salvage therapy;
- “Transferring out” of the insurance schemes because of inability to pay the monthly contributions and other factors;
- TB co-infection, including MDR and XDR TB.

Possible solutions include on-going education and awareness and VCT campaigns in the workplace, incentives to join the medical fund’s HIV program, greater use of electronic solutions, e.g. text messaging, to encourage adherence, and better collaboration between public and private sectors as well as donor funders and large companies.

Aid for AIDS believes that cost-effective management of HIV/AIDS is best achieved by a comprehensive DMP based on education and support and backed by evidence-based guidelines and protocols.

The private sector can play a role in accelerating access to HIV care by encouraging existing insured beneficiaries to join the program early and commence HAART at the most appropriate time.

In addition, it is possible to collaborate with donor agencies to provide the program to uninsured individuals to support public sector efforts, particularly in under-served rural areas using the services of private sector doctors and laboratories. Such funding can also be applied to uninsured employees of small and medium enterprises in urban areas.

Finally, programs such as AfA have accumulated a substantial database and can use this data to collaborate in various research initiatives.

#### 2.4. Household survey in Ghana

Ghana is currently undertaking a household survey to evaluate the dimensions of the TAP. The survey will assess the socio-economic impact of treatment through i) poverty measure, ii) labour force participation, iii) earnings, iv) children’s education, and v) health and other indicators of well-being. The survey will also identify key determinants of effectiveness in ensuring treatment adherence and reducing the risk of resistance. This study is designed to be a longitudinal household surveys meaning that there will be 3 rounds of survey over 23 months. This methodology will allow to make comparisons.

The study will focus on households with HIV/AIDS patients under treatment and households without HIV/AIDS patients. The sample size will be 1800 households comprising 1200 with a member under treatment and 600 from the general population (no HIV/AIDS patients).

As of today, the tools and the work plan are finalized and the recruitment of both the Research Assistants and the clients are in progress. Research Assistants are scheduled to be trained in February and the first round of data collection is planned to start in March for 5 months.

## 2.5. DREAM program

Sant'Egidio, through the Drug Resources Enhancement against AIDS and Malnutrition (DREAM) project, launched its broadly based HIV/AIDS treatment program in August 2001.

The program provides broad-based support for people affected by HIV/AIDS in the context of a comprehensive treatment approach.

DREAM aims to protect the health of mothers and their children, providing drugs to pregnant women, both for PMTCT (nevirapine) and also full ARV therapy, starting from the second trimester of pregnancy. The program indicates that this reduces transmission of the virus to about 3%, far below that of nevirapine monotherapy alone.

DREAM has adopted an innovative approach to support adherence. Patients on treatment have become one of DREAM's best resources. Often, they form self-help groups to support one another. In the case of "Mulheres para o DREAM", women have set up an association to support patients receiving treatment to adhere to treatment protocols. They do so by sharing their own positive experience with ARV treatment. This peer education and emotional support is profoundly encouraging and a crucial element of support for new patients and has contributed to very high adherence. The holistic approach and strong focus on nutrition also contributes to high adherence and enhances the positive effects of ARV treatment. During pregnancy, and for six months afterwards, women receive beans, rice or maize, oil, sugar and nuts as well as multi-vitamins and iron supplements.

Dr. Guidotti reported that over 4,800 people were receiving ART treatment through eight sites operated by Sant'Egidio, of whom about 3,200 are women and 155 children under the age of four were also being treated.

The ARV therapy results are excellent, with over 90 percent adherence to treatment and a remarkable number of people recovering from near death to happy and productive lives when on ARV therapy. No increase in drug resistance has been found under the program. Careful monitoring has shown a limited rate of liver toxicity, which has been able to be controlled by changing or stopping treatment in all but one case.

A pilot study that compared 40 women treated under the DREAM project for three months before and after they gave birth, with 40 other (untreated) women found a dramatically lower viral load in breast milk of the treated women, and a significantly higher proportion of women with undetectable breast milk viral loads. This raises the hope that ARV treatment may allow HIV-positive women to breastfeed their babies with little risk of HIV transmission, but this will need to be tested in future clinical studies.

## 2.6. ECA Communication strategy

The advocacy and communication strategy for the TAP will be built on the sharing and learning agenda of the initiative. Central to this strategy will be the identification of lessons from the ongoing pilot projects in Ghana, Burkina Faso and Mozambique. For the purpose of this strategy, “lessons” will be those experiences deriving directly from the operationalization of TAP in the three pilot countries. Those experiences must have unique properties relative to the particular elements undertaken (eg drug resistance, dropouts, stock-outs, adherence, etc.).

Lessons from TAP will be strengthened with lessons from other HIV/AIDS programs/initiatives in Africa and, where appropriate, the experiences and best practices from other regions and countries with documented successes in HIV treatment, prevention, care and support. The purpose of this is to offer policy makers who will eventually implement TAP lessons the opportunity of cross-referencing those lessons with experiences elsewhere.

The TAP strategy will evolve around three main pillars:

1. Awareness creation
2. Packaging/targeting of outcome products
3. Construction of sustainable goodwill through continuous stakeholder participation at sub-regional levels.

## 2.7. Discussions

### *Insurance scheme*

During the discussions participants learned that in South Africa, employers pay the majority of the health insurance for their employees. More healthy people are encouraged to join the scheme. However, when positive, they do not have to pay a higher premium.

Only 25% of insured people are seeking care. One of the reasons may be lack of trust of the employees and the fear of being exposed. However, care is confidential and patients may need to be more educated about their right.

After 9 years of experience in South Africa the proportion of patients on first line therapy is 80%, 15% are on the second line and 5% are on salvage therapy.

Although a significant increasing number of patients are on second line therapy, the insurance cost remains relatively stable and the reduction in cost of HIV drugs has contributed to that. Costs cited in the slide presentation are inflation adjusted.

### *DREAM*

The Dream Program started with the collaboration and support of the Ministry of Health and was aimed at providing treatment. The program utilized government infrastructure (e.g. laboratories).

In terms of adherence, nutritional support played an important role to keep the pregnant women in the program using HAART.

Responding to the question whether women who had detectable viral load in the Dream Program were more likely to transmit the virus, Dr. Guidotti said that results were especially good for women who stay on treatment for the full duration of the protocol: the vertical transmission rate was just 1.9% a year after delivery for women who received more than 60 days of HAART treatment before delivery, as well as nutritional supplementation, multivitamins and who fed their babies with formula. Of more than 1,500 babies born to HIV/AIDS positive mothers in the program, 97% have tested negative for the virus.

### *PPP – Burkina Faso*

Selection of interview participants respondents includes TAP stake-holders and implementers on the ground. The different categories being assessed can be differentially weighted depending on the goals and objectives of a particular TAP country or program. For example, if sustainability is considered a critical success factor of the initial pilot program, then sustainability can be weighted more heavily compared to the other categories of governance, cost or program results. Furthermore, the weights can be adjusted to perform different sensitivity analyses. Input from different TAP stakeholders is therefore critical for determining the appropriate weightings of each scoring category and sub-category.

## **3. Experts panel**

### **3.1. Drug resistance monitoring: Impact of HIV-1 diversity on response to antiretroviral treatment**

In most Northern and Western countries, the HIV/AIDS epidemic is largely represented by viruses that fall into the coverall category of group M, of which the principal clade is subtype B. As a consequence, virtually all of our knowledge on the development of antiretroviral drugs, responsiveness to antiretroviral therapy, and the

properties of each of the viral reverse transcriptase (RT) and protease (PR) enzymes relates to subtype B viruses. However, over 90% of retroviruses in circulation on a global basis derive from other groups and subgroups, including HIV-2, HIV-1 groups O and N, and a large variety of HIV-1 subtypes other than B. The vast majority of such viruses are found in sub-Saharan Africa, India, China and other parts of the developing world.

In her presentation, Dr. Doualla-Bell brought some evidence showing that genetic differences among different viral subtypes can be responsible for the emergence of different mutational profiles that can impact on levels of HIV drug resistance. Dr. Doualla-Bell emphasize that an understanding of mutations that may occur among viruses of different subtypes must be taken into account when interpreting genotypes of viruses of different subtypes as a guide to therapeutic options in the aftermath of treatment failure.

The problem of HIV genetic diversity represents a severe obstacle in regard to both the development of HIV drug resistance as well as attempts to control HIV transmission through development of a safe and effective antiviral vaccine. At the same time, different forms of HIV-1 may be more transmissible than others as a result of such diversity. Although most results to date indicate that virological and immunological responsiveness on the part of patients to antiretroviral therapy is similar regardless of viral subtype, we cannot know definitively whether this situation will persist or what the ultimate impact on therapeutic success may be of distinct mutational profiles associated with different viral subtypes. Furthermore, only scant data are available with regard to long-term treatment success involving the use of ARVs in geographic areas in which viruses other than those of subtype B origin are most frequent. This subject also has potential to impact on choices involving design of optimal antiretroviral regimens. In addition, the roles of HIV-subtype specific silent mutations, polymorphisms, as well as major and minor mutations associated with emergence of HIV drug resistance remain to be elucidated.

In her conclusion, Dr. Doualla-Bell addressed some questions on how to preserve maximally suppressive treatment options and minimise transmission of resistance in the context of programmes such as TAP which are implemented in poor country settings, arguing in favour of strengthen resistance studies to insure that African countries make the best choice taking into account the specificity of each HIV-1 subtype.

### 3.2. Treatment failure and adherence

Dr. Tendani Gaolathe from Botswana Harvard Partnership reported that patient identification and screening has been greatly eased since the introduction of routine testing. The country faces key programmatic challenges relayed to: i) Adherence-patients taking their medications as prescribed because of intolerance, toxicities, inconvenience, missed doses or food requirements; ii) cultural factors and iii) access to the health facilities iv) program logistical functions such as constant supply of drugs, monitoring issues (CD4 and viral load testing), and v) access to advanced laboratory technological testing such as genotyping.

In looking at reasons why some patients are failing, three types of failure are considered- Clinical, Immunologic and Virologic. This requires finance, laboratory capacity and clinical expertise. In view of this, there is certainly a need to be more flexible and standardized triage systems and treatment guidelines that are compatible with resource limited settings. As is it now, treatment guidelines are largely non-accommodating of the African context. The issue of adherence in a population which has never been symptomatic is very difficult to tackle when there are limited data/resources and drug formulations. As more people are put on treatment there is a potential risk of large levels of resistance developing.

Dr. Gaolathe shared the interesting experience of Botswana. Charts were reviewed during 3 years at Princess Marina Hospital and the failure rate registered went from 2 to 3.5%. Interestingly, the percentage of treatment naïve patients who were failing was abnormally high.

Professionals in Botswana came up with possible solutions that could improve the current situation: i) All clinicians responsible for monitoring patients should perhaps do it every 3 months, ii) Tags should be kept on patients gone more than 6 months without documented viral load, and iii) Patients who meet definition of failure should receive special attention.

### 3.3. XDR tuberculosis and what the TAP countries can do

XDR tuberculosis is a great threat that emerged recently with the extremely high potential of worsening most of the efforts made by countries in the fight against tuberculosis. Furthermore, the threat appears to be very imminent especially in Sub-Saharan Africa because of the relationship between Tuberculosis and the HIV epidemic. However, MDR and XDR TB are not limited to Africa; they are also spreading all over the world. A CDC and WHO survey conducted in 2006 reported that virtually untreatable tuberculosis resulting in extensive drug resistance was present in every region of the world. What is the situation in the African region and what can the TAP countries do about it?

The objective of the panel was to shed some light on the issue. To facilitate discussions around the emergency of XDR tuberculosis in Africa, two presentations were made by Dr. Anthony Peter Moll, principal Medical Officer in South Africa, and Dr. Haileyesus Getahun, TB/HIV and drug resistance officer at WHO.

Dr. Anthony Peter Moll focused on uncovering XDR Tuberculosis association with HIV infection in Church of Scotland Hospital in South Africa. Church of Scotland Hospital served a community of 300,000 inhabitants with an HIV prevalence of 25 % or more and where 80 % of TB patients are co-infected with HIV. TB mortality due to TB was up to 40 % before ARV treatment and declined to 12 % following ARV treatment. However, it was noticed that two HIV/TB co-infected patients with excellent virologic response to ARVs and undetectable viral load were not getting better. To understand what was going on, forty-five samples of sputum were submitted for testing on February

2005. The results showed that 10 out of these 45 samples were multi-drug resistant to more than 6 TB drugs. A large assessment involving 1,539 patients was subsequently conducted and 53 patients were XDR TB patients. Unfortunately 52 out of 53 XDR TB patients died which represents a 98% mortality rate.

Dr. Haileyesus Getahun stated in his presentation that XDR-TB is the abbreviation for extensively drug-resistant tuberculosis (TB). Usually TB can be treated with a course of four standard (first-line) anti-TB drugs. If these drugs are misused or mismanaged, multidrug-resistant TB (MDR-TB) can develop. MDR-TB takes longer to treat with second-line drugs, which are more expensive and have more side-effects. XDR-TB can develop when these second-line drugs are also misused or mismanaged and therefore also become ineffective.

In places where XDR-TB is most common, people living with HIV are at greater risk of becoming infected with XDR-TB and dying from it, compared with people without HIV, because of their weakened immunity. However, MDR and XDR TB occur in outbreaks among HIV positives with high case fatality (95-98%) and short survival time (16- 88 days). To date only one laboratory in Africa can identify XDR-TB cases. None of the TAP countries have capacity to identify XDR-TB cases. XDR-TB poses specific challenges in the fight against HIV/AIDS and can compromise the progress made in countries towards universal access to antiretroviral drugs (ARVs). XDR -TB is a by-product of weak and ineffective TB control efforts and weak collaboration between TB and HIV control programs.

XDR TB is a wake-up call to ensure a better future of HIV treatment by strengthening TB control and delivering collaborative TB/HIV activities as stipulated in the WHO policy on TB/HIV<sup>3</sup>. Particularly intensified TB case finding among people attending HIV services, provision of isoniazid preventive therapy and ensuring TB infection control are the critical interventions that need to be seriously considered by TAP countries.

Other critical actions that should be considered in the context of TAP include:

- Implementing the revised recommendations of WHO to expedite the diagnosis and treatment of TB in people with HIV infection or AIDS.
- Strengthening capacity to improve surveillance capacity for MDR and XDR-TB.
- Initiating referral sites for the management of MDR and XDR TB through using the Green Light Mechanism for second line anti-TB drugs.
- Increasing laboratory capacity (including supranational laboratories) to enhance the surveillance system of drug resistant TB.
- Resources have to be mobilized.

---

<sup>3</sup> WHO. Interim policy on collaborative TB/HIV activities, World Health Organisation, Geneva, Switzerland. WHO/HTM/TB/2004.330 WHO/HTM/HIV/2004.1. 2004.

#### **4. The “After TAP”**

##### 4.1. The issue of sustainability

Dr. Albertus Voetberg expressed the difficulty of dealing with the issue of ART and sustainability because of its many aspects. Fiscal sustainability is a term often used but rarely defined, though it has generally been defined in terms of self-sufficiency. Knowles, Leighton, and Stinson (1997) define “health system sustainability” as the “capacity of the health system to replace withdrawn donor funds with funds from other, usually domestic, sources and sustainability of an individual program as the “capacity of the grantee to mobilize the resources to fund the recurrent costs of a project once it has terminated.” However, given the enormous unmet needs in the poorest countries, coupled with stagnant economic performance, some donors are now defining sustainability more realistically on the basis of the managing entity’s commitment of a stable and fixed share of program costs (Brenzel and Rajkotia 2004; Kaddar, Lydon, and Levine 2003).

The macroeconomic effects of aid can cause substantial harm if the aid is not sustained until its benefits are realized. To avoid doing harm, aid should be sustained and predictable. In short, sustainability means: 1) Commitment, 2) Capacity, 3) Good governance, and 4) Success.

The question of “what are we sustaining” was also raised, from which hypothetical questions relating to the following three areas arose:

1. The already existing 3 drugs regimen?
2. ARVs approved by the FDA?
3. ART fiscal sustainability - macro economic financial impact.

ART program sustainability can be summarized as follows:

1. Addressing the short term and unpredictable volatile nature of foreign aid,
2. Identifying and maintaining positive practices,
3. Maximizing the benefits of the art program (cost benefit analysis),
4. Protecting the effectiveness or the integrity of the 1<sup>st</sup> line drugs by promoting adherence and monitoring drug resistance development,
5. Introducing cost saving strategies and measures to be introduced where people can pay for the services they obtain,
6. Increasing efficiency: program implementation,
7. Increasing the benefits realized,
8. Integrating ART program into mainstream health service delivery program.

#### 4.2. The “After TAP”: various perspectives

Participants were required to brainstorm as a group around the following key areas:

1. Stakeholders who come together to determine concerns of the “After TAP” to include: National treatment program (MOH), TAP-project beneficiaries (clients), IPs, Facilitating agencies (WHO and UNECA) and Financier (World Bank);
2. Service delivery;
3. Program management
4. Technical assistance which is mainly provided by WHO;
5. What will be the consequences on the learning agenda;
6. What does it involve to prepare for the “after-TAP”?
7. What is the single most important aspect of the TAP that should continue.

After hours of deliberations, the TAP countries presented the result of their discussions.

##### *Burkina Faso*

For Burkina Faso, areas that would need special attention, should the TAP come to an end, are:

- Availability of care to patients
- Capacity building
- Medical suppliers and commodities
- Coordination of care
- Operation and treatment research and
- Traditional medicine

More specifically, objectives to focus on would be in the areas of Counseling and Testing, Care and Support, PMTCT, Behavioral Change, Communication and Technical Assistance.

With regard to the integration of HIV care into the already existing healthcare system, it would certainly be a huge financial burden on the Government and therefore would create a funding deficit that would need to be compensated. NGOs may need to be brought on board to provide support and fill the gaps that will be created.

In conclusion, Burkina Faso realized that there would be too many challenges to resolve should the TAP come to an end and that sustaining it is not only necessary, but vital, to allow PLHWA to have continued access to care.

## *Ghana*

Ghana shared the following challenges should the TAP end and proposed a way forward:

With regard to **service delivery**, Ghana proposed to leverage funds from other sources and to identify other possible sources of funding to take on the good work started under TAP. The National Health Insurance Scheme was cited as an example.

As far as **program management** is concerned, the group believes that the Ministry of Health certainly has the capacity to take on the work started under the TAP and to integrate it into the national healthcare system by actively promoting Private-Public Partnerships. Funding would need to be reallocated and the role of the IPs reassessed.

The group proposed that the gap created in the area of **technical support** and **capacity building** could be filled by the Ministry of Health and WHO. However, there is a concern that WHO may also be affected by the end of TAP.

**The learning agenda** would probably lack financial resources to accomplish the undergoing research. A possible solution would be to call on WHO for assistance and expertise.

The **learning agenda** has been identified as the most important item for which the TAP should continue. The importance of giving greater focus on the **PPP** has also been recognized.

In conclusion, the group admitted that there was going to be gaps in all the above-mentioned areas and that other sources of funding would be necessary. Moreover, Ghana is counting on WHO for assistance in the area of research.

## *Mozambique*

In the area of **service delivery**, the group recognized that TAP constitutes 35 % of all the programs. Consequently, should the TAP come to an end, a higher political commitment would be required as 14.6% of national budget is already committed to health. The Government should take the initiative to bring in companies and stakeholders for support and to look for other sources of funding.

In the area of **PPP**, the group agreed that there is a need for better coordination, transfer of skills (capacity) and logistical support.

**Technical assistance** will still be needed for resistance monitoring, and funds required for operational research and the learning agenda.

For the single most important issue is the support for **innovation**.

#### 4.3. Discussion and Summary

During the discussion Mr. Israel Sembajwe of ECA explained that innovation comes only when one is informed especially through the learning process and also said the TAP agenda will be put in the regular budget of the UNECA even after TAP ends and expects countries to contribute regularly to this budget.

In summary Prof. Sai said there is the need for political commitment to add weight to scientific arguments, there was the need to clearly articulate why preferential treatment of HIV vis-à-vis other areas of health is needed and to make sure that lessons learnt not only focus on the pilot agenda of the funds but to cover other areas of health sector delivery.

As mentioned earlier, the participants agreed on the re-formulation of the project development objective as proposed. Dr. Voetberg reiterated that this fine-tuning would have no consequence for the resource allocation to the various components of the project.

#### 5. Key action points

- An update on the status of collaborative TB/HIV activities from all three TAP countries during the next RAP meeting in Ouagadougou - and the participation of the TB program managers in that meeting;
- A report/update on the participation of ART program managers in the national budget/MTEF/PRSP process from all three TAP countries (example of the NACC in Kenya attached).

#### 6. Recommendations

In order to continue the TAP, and extend it to other countries, stable, reliable and long-term financial support is critical.

#### 7. The way forward

- Ensuring the extension of the TAP project.
- Step-up the communication and advocacy to ensure that lessons learnt from the TAP are shared at the Continental level.