

Situational Analysis of Information Systems and Coordination for Managing HIV and AIDS Related Commodities in Five West and Central African Countries

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About SIAPS

The goal of the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program is to assure the availability of quality pharmaceutical products and effective pharmaceutical services to achieve desired health outcomes. Toward this end, the SIAPS result areas include improving governance, building capacity for pharmaceutical management and services, addressing information needed for decision-making in the pharmaceutical sector, strengthening financing strategies and mechanisms to improve access to medicines, and increasing quality pharmaceutical services.

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ACRONYMS AND ABBREVIATIONS

AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral
CHP	Centre Hospitalier Prefectoral
CHR	Centre Hospitalier Regional
CHU	Centre hospitalier universitaire
CMS	central medical stores
DGPML	Direction Générale de la Pharmacie, du médicament et des Laboratoire
Global Fund	Global Fund to Fight AIDS, Tuberculosis and Malaria
HIV	human immunodeficiency virus
MOH	Ministry of Health
NACP	National AIDS Control Program
PMTCT	prevention of mother-to-child transmission
RTK	rapid test kit
SIAPS	Systems for Improved Access to Pharmaceuticals and Services [Program]
SOP	standard operating procedure
USAID	US Agency for International Development
USD	US dollar
VPP	Voluntary Pooled Procurement
WA	West Africa

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EXECUTIVE SUMMARY

The West and Central African regions have a low HIV prevalence. Because of the low number of patients on ART and limited technical and financial support, these regions have experienced frequent stock-outs of ARVs posing a serious risk to patients on ART and increasing the risk of HIV drug resistance in the region. As a key step in addressing this challenge, the West Africa Regional Health Office of the US Agency for International Development is providing support through the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program to address the recurring pharmaceutical supply management issues by supporting the regional coordination mechanism and the development and implementation of an early warning system (EWS) for antiretrovirals (ARVs) and HIV and AIDS related commodities.

As part of project startup, SIAPS conducted a situational analysis in Burkina Faso, Cameroon, Guinea, Niger, and Togo (due to delayed approvals to conduct the assessment in Benin, the analysis could not be accomplished) to gain an understanding of the current capacity for HIV and AIDS commodities management and supply. Also analyzed was the readiness of the HIV and AIDS commodities information management systems to provide the information necessary for routine monitoring of HIV and AIDS product availability in the region.

Findings

- While the countries have a number of stakeholders and multiple committees or working groups to coordinate and oversee the different supply chain functions, there is serious gap in coordination for HIV and AIDS commodities in the sub-region. Meetings are planned and held but with few results. Some stakeholders are inadequately involved in these meetings rendering coordination ineffective.
- There is a gap between national level and facility level data generation, and use of patients and commodity information. Low reporting rates coupled with poor data quality (in terms of accuracy and timeliness) are the biggest challenges affecting the use of information for decision making. Although data is collected, there is no detailed analysis at the national level to identify the risks of stock-out of commodities in relation to patient numbers and available commodities. Three out of five countries had a stock-out of ARVs in the period six months prior to the assessment. Inadequate supply planning, late deliveries from Voluntary Pooled Procurement (VPP) mechanism, lack of security stock, and lack of funding were major factors contributing to the stock-outs.

Recommendations

- As part of improving HIV and AIDS information flow and management, a country and regional level dashboard is recommended as a tool for compiling and analyzing information. The resulting analyzed data can guide technical discussions to guide decision making at the country and regional level. Data and information from the early warning system regional

dashboard website will be used for quarterly HIV and AIDS review meetings, coordination meetings (national and regional levels), quantification of commodities, supply chain planning, guideline review and development, evidence for Global Fund concept notes, national HIV and AIDS strategic plans, and advocacy with donors, governments, and implementing partners.

All countries assessed are perpetually at risk of stock-outs. The main benefit of the SIAPS WA project is to work with focus countries to ensure that this risk is detected well ahead of time so that appropriate measures including coordination and advocacy are put in place to mitigate these risks of stock-out. A regional dashboard or early warning system for HIV and AIDS-related commodities will serve as a platform for sharing information and lead to faster decision making at the country and regional level to enhance coordination of HIV programs in the sub-region.

INTRODUCTION

Overview

The West and Central African regions have a low HIV prevalence and over the years they have not received the level of investment compared to the President's Emergency Plan for AIDS Relief (PEPFAR) focus countries in East and Southern Africa.¹ With the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund) as the main source of funding for HIV and AIDS in the region, these countries have faced significant challenges in managing the HIV and AIDS epidemic (HIV-1 and HIV-2). Because of the low number of patients on antiretroviral therapy (ART) and the limited technical and financial support, they have experienced frequent stock-outs of ARVs posing a serious risk to patients on ART and increasing the risk of HIV drug resistance in the region.

Stock-outs of life saving HIV and HIDS drugs and opportunistic infection drugs have been increasing in a number of countries in West Africa.² For example, a number of countries not only have reported stock-outs of critical drugs, but they have not always been able to identify and address underlying causes. Most countries in the region do not have adequate systems in place to generate accurate and reliable data for decision-making (current stock available, projection of needs). To address the HIV and HIDS commodity stock-outs at country level a number of response mechanisms have been solicited including the PEPFAR Emergency Commodity Fund – (ECF), the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund), Voluntary Pooled Procurement (VPP), Coordinated Procurement Planning (CPP), UNITAID, and Grant Management Solutions (GMS).

As one of the key steps in addressing this challenge, the West Africa Regional Office of the US Agency for International Development (USAID) is providing support through the Systems for Improved Access to Pharmaceuticals and Services (SIAPS) Program (*Programme des systèmes pour l'amélioration de l'accès aux produits et services pharmaceutiques*) program implemented by Management Science for Health (MSH) to address the recurring pharmaceutical supply management issues by supporting the regional coordination mechanism and the development and implementation of an early warning system (EWS) for ARVs and HIV and AIDS related commodities.

Interventions of the SIAPS West Africa Regional Program³ include—

- Improve coordination among regional and national stakeholders involved in HIV commodity supply

¹ <http://www.pepfar.gov/countries>

² West African Health Organisation (WAHO). 2013. Assessment of Central Medical Stores to host Regional Antiretroviral medicines stock security in four countries. http://www.wahoas.org/IMG/pdf/WAHO_Regional_ARV_stock_security_CMS_Report.pdf. accessed May 19, 2014

- Increase the use of pharmaceutical management information for decision making at national and regional levels
- Increase financial resources for pharmaceutical sector for HIV AIDS in selected countries
- Enhance capacity for pharmaceutical supply management

SITUATIONAL ANALYSIS

Rationale

Globally, sub-Saharan Africa (SSA) remains most severely affected by HIV, accounting for 69 percent of the people living with HIV worldwide.⁴ While SSA has shown a trend towards increased antiretroviral therapy coverage, people living with HIV in Eastern and Southern Africa with ART coverage of up to 80% in Namibia, Botswana and Rwanda⁵ are more likely to obtain treatment services than people in Western and Central Africa with 35% coverage of adults in need of ART, 9% coverage for pediatrics in need of ART and 18% coverage for prevention of mother to child transmission.^{6,7} Barriers to accessing health services remain a major constraint, particularly to marginalized populations, mostly because of weak health systems. International commitment for the HIV and AIDS response through funding and technical support has begun a steady decline from 5.6 billion US dollars (USD) (fiscal year 2010) to 4.7 billion in (fiscal year 2013),⁸ and countries in SSA have to develop systems that will ensure long-term sustainability of HIV programs. Several of the established national AIDS control programs (NACPs) are Principal Recipients of grants from the Global Fund to Fight AIDS, Tuberculosis and Malaria (Global Fund); a number of these countries are progressing towards universal access to treatment.

According to the 2013 state of world population report,⁹ the total population in the six focus countries ranged from 6.8 million in Niger to 22.3 million in Cameroon with a total population of 86 million people. The report also shows an annual growth rate of at least 2.5% and an average life expectancy of about 55 years across these countries (table 1).

Table 1. Demographic Indicators

Indicator	Benin	Burkina Faso	Cameroon	Guinea	Niger	Togo
Total population in millions, 2013	10.3	16.9	22.3	11.7	17.8	6.8
Average annual rate of population change, percent 2010-2015	2.7	2.8	2.5	2.5	3.9	2.6
Life expectancy at birth (years), 2010-2015	55 male 61 female	55 male 57 female	54 male 56 female	55 male 57 female	58 male 58 female	56 male 57 female

⁴ WHO/HIV and AIDS. <http://www.who.int/gho/hiv/en/>.

⁵ UNAIDS. 2011. World AIDS Day Report – How to get to zero: Faster, Smarter and Better

⁶ *ibid*

⁷ West African Health Organisation (WAHO). 2013. Assessment of Central Medical Stores to host Regional Antiretroviral medicines stock security in four countries.

http://www.wahooas.org/IMG/pdf/WAHO_Regional_ARV_stock_security_CMS_Report.pdf. accessed May 19, 2014. Accessed May 19, 2014

⁸ The Henry J. Kaiser Family Foundation (KFF). 2014. The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) <http://kff.org/global-health-policy/fact-sheet/the-u-s-presidents-emergency-plan-for/>.

⁹ The State of World Population 2013. <http://www.unfpa.org/webdav/site/global/shared/swp2013/EN-SWOP2013-final.pdf>.

The World Health Organization (WHO)'s global health observatory data repository¹⁰ indicates that the HIV prevalence among adults population is highest in Cameroon (4.5%) and lowest in Niger (0.5%). Also, the proportion of people receiving antiretroviral therapy is about 45% in Cameroon, Niger, and Togo while Burkina Faso has the highest coverage at 62% (table 2).

Table 2. HIV and AIDS Morbidity and Mortality

	Benin (Year)	Burkina Faso(Year)	Cameroon (Year)	Guinea (Year)	Niger (Year)	Togo (Year)
Prevalence of HIV among adults aged 15 to 49 (%)	1.1 [1.0-1.3] (2012)	1.0 [0.8-1.1] (2012)	4.5 [4.1-4.9] (2012)	1.7 [1.4-2.0] (2012)	0.5 [0.4-0.6] (2012)	2.9 [2.5-3.5] (2012)
Deaths due to HIV and AIDS (per 100 000 population)	30.0 (2011)	40.0 (2011)	172.0 (2011)	39 (2011)	25.0 (2011)	145.0 (2011)
Antiretroviral therapy coverage among people with HIV infection eligible for ART according to 2010 guidelines (%)	67 [61-73] (2012)	62 [56-69] (2012)	45 [41-48] (2012)	50 [43-58] (2012)	46 [39-53] (2012)	46 [40-52] (2012)
Estimated percentage of pregnant women living with HIV who received antiretrovirals for preventing mother-to-child transmission	30 [24-36] (2011)	46 [34-54] (2011)	53 [45-62] (2012)	40 [31-55] (2011)	[27-42] (2011)	61 [47-79] (2011)

Alerts of stock-outs of life-saving drugs for antiretroviral treatment and treating opportunistic infections have emerged from a number of countries in West Africa (WA). With limited or no accurate information on number of patients on treatment, current stock levels and commodities in the pipeline and inadequate linkage between projections and resources available, the risk of antiretrovirals (ARVs) and rapid test kit (RTK) stock-outs is likely to be a recurring problem.

The USAID-funded SIAPS program is designed to provide support to target countries in the WA region to identify the risk of stock-out before it happens and to enable countries to tap into mechanisms that will enable them prevent a stock-out event or minimize the risk of stock-out.

Objectives

At the project startup, SIAPS conducted a situational analysis to gain an understanding of the current capacity for HIV and AIDS commodities management and supply in WA. Also assessed was the readiness of the HIV and AIDS commodities information management systems to

¹⁰ Global Health Observatory Data Repository. WHO Africa
 Region:<http://apps.who.int/gho/data/node.country.regionAFR?lang=en>. Accessed March April 5, 2014

provide the information necessary for routine monitoring of HIV and AIDS product availability in the region. This information included—

- Key stakeholders involved in the management of ART commodities and their respective roles
- Adopted standard treatment guidelines and the registered ARVs and RTKs
- Sources and levels of funding for ARVs and RTKs in each of the target countries
- Quantification, procurement, and distribution mechanisms used for ARVs and RTKs
- Coordination and information management systems
- Data elements related to ARV and RTK commodity management collected at each level of the health system
- Information flow and reporting for ARV and RTK commodity management across the different levels of the health systems

Methodology

Information was collected in Burkina Faso, Cameroon, Guinea, Niger, and Togo. There was no collected information for Benin because the approval to do the assessment was delayed. Data was gathered from—

- Review of key documents, guidelines, and protocols for ARV and RTK management, assessments, and reports.
- Key informant interviews; staff from the national levels (e.g., NACPs, pharmaceutical services, central medical stores [CMS], and regulatory sectors), regional/provincial levels, and health facilities (clinicians, pharmacists, and dispensers) were interviewed using standardized questionnaires (annexes B–E).

SIAPS staff based at the WA regional offices collected data in Togo, Niger, and Burkina Faso. Data from Cameroon and Guinea was collected by the SIAPS staff in the local offices. With support from SIAPS headquarters, data was cleaned, organized, and analyzed using Microsoft Excel and presented as technical reports and presentations. The findings were presented at a stakeholders meeting held in Accra in April 2014.

FINDINGS

Institutions Included in the Situation Analysis

Forty-five people representing institutions responsible for managing ARV and RTKs from these countries were interviewed between February 10 and March 13, 2014 (table 3 and Annex F).

Table 3. Institutions Visited for Commodity Information

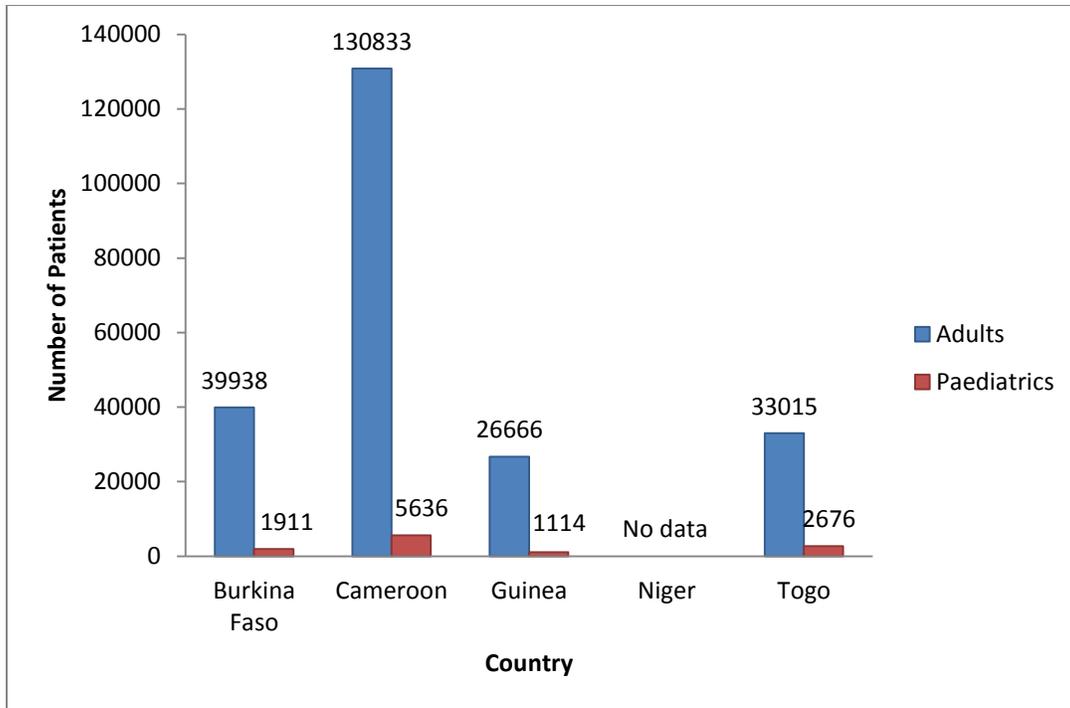
Country	Institution
Burkina Faso	<ul style="list-style-type: none"> • Direction Générale de la Pharmacie, du médicament et des Laboratoire (DGPML) • Centrale d'achat des médicaments essentiels et génériques (CAMEG) • Direction régionale sante du centre • Cellule du Projet Fonds Mondial (CPFM/SSP) • Programme Sectoriel Santé de Lutte contre le SIDA et les IST (PSSLS-IST) • Secrétariat Permanent du Conseil National de Lutte contre le SIDA et les IST (SP/CNLS-IST)
Cameroon	<ul style="list-style-type: none"> • Centrale Nationale d'Approvisionnement en Médicaments et consommables Médicaux Essentiels (CENAME) • Commission Nationale de Lutte contre le Sida (CNLS) • Groupe technique régional du centre/CNLS
Guinea	<ul style="list-style-type: none"> • Secrétariat Exécutif du Comité National de Lutte contre le SIDA (SE/CNLS) • Pharmacie Centrale de Guinée (PCG)
Niger	<ul style="list-style-type: none"> • Direction de la Pharmacie, des laboratoires et de la Médecine Traditionnelle (DPHL/MT) • Office National des Produits Pharmaceutiques et Chimiques (ONPPC) • Unité de Gestion Spécifique (UGS) • Coordination Intersectorielle de Lutte contre le VIH/SIDA et les IST (CISLS) • Direction Régionale de la Santé Publique (DRSP) de Niamey
Togo	<ul style="list-style-type: none"> • Centrale d'achat des médicaments essentiels et génériques (CAMEG) • Direction de la pharmacie, des laboratoires et équipements techniques (DPLET) • Coordination du Conseil National de Lutte contre le SIDA (CNLS) • Programme National de Lutte contre le SIDA (PNLS) • Direction Régionale Maritime

National HIV Program Summary

HIV and AIDS program coverage was assessed by reviewing the number of patients receiving services and the number of sites offering these services.

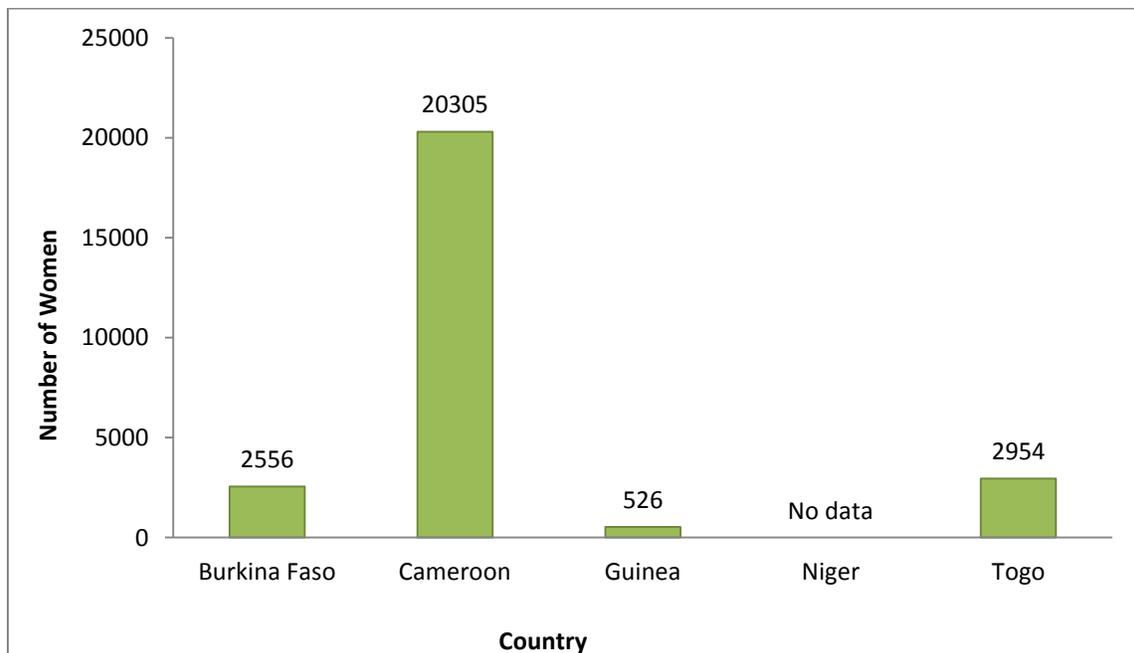
Number of Patients Served

The total number of active ART patients and that of women receiving ARVs for prevention of mother-to-child transmission (PMTCT) are presented in figures 1 and 2. There are 254,305 active ART patients in the five participating countries.



NB: There was no data from Niger

Figure 1. Number of active ART patients in assessed countries



NB: There was no data from Niger

Figure 2. Number of Women on PMTCT Therapy

The number of countries reporting on key aspects of the HIV program is presented in figure 3 and the total number of patients is further broken down in table 4. Details on the number of clients receiving other services are also presented.

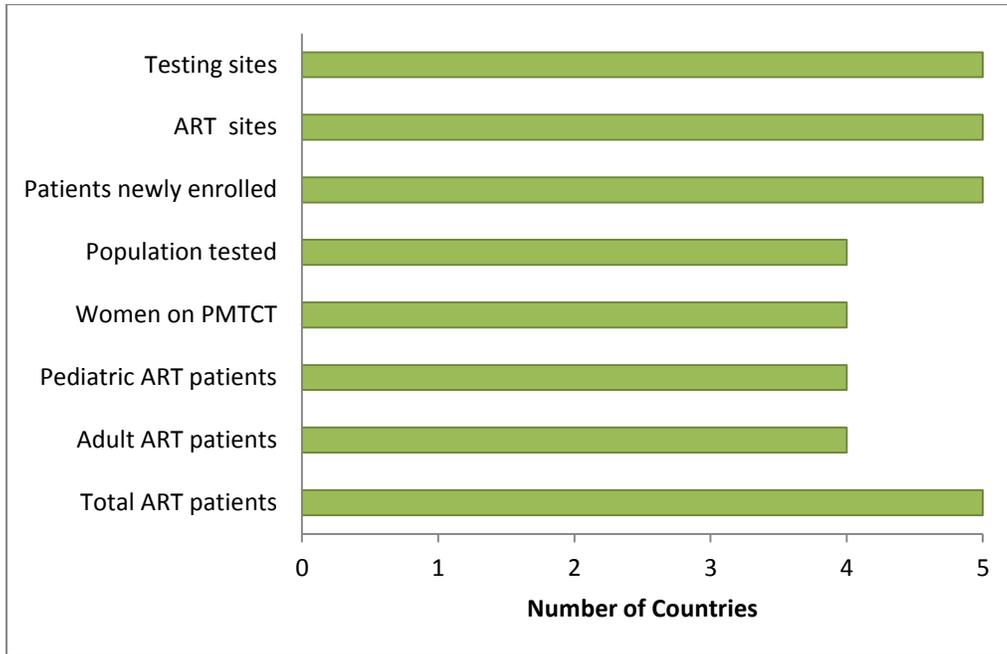


Figure 3. Number of Countries That Reported Key Aspects of HIV Program

Table 4. Total Number of Patients/Clients Served

	Burkina Faso	Cameroon	Guinea	Niger¹¹	Togo
Total number of active patients on ART	41,849	136,439	27,780	12,516	35,691
Number of adult patients on first-line regimen	38,828	125,600	25,333	Not Provided	29,415
Number of adult patients on second-line regimen	1,110	5,233	1,333	Not Provided	3,600
Number of pediatric patients on first-line regimen	1,772	5,411	1,058	Not Provided	2,536
Number of pediatric patients on second-line regimen	139	225	56	Not Provided	140
Number of new patients started on ART, per month	470	1,116	354	242	549
Number of post exposure prophylaxis cases	Not Provided	Not Provided	Not provided	Not Provided	294
Total number of people tested for HIV in 2013	678,946	Not Provided	221,842	326,436	309,736
Projected estimate for total patients on ARV for the next 12 months (by December 2014)	Not Provided	144,225	33,185	Not Provided	Not provided
Projected estimate for total clients to be tested for next 12 months (by December 2014)	Not Provided	2,844,365	Not Provided	Not Provided	Not Provided

Commodities availability is dependent on accurate forecasting of the quantities needed and supply planning. Having complete and precise information on the current and projected number of patients/clients is key in ensuring sound forecasts. In figure 3, not all countries could report on the eight basic key aspects of the HIV program including population tested for HIV in the last 12 months, number of patients on ART desegregated by age (adult and pediatric), and number of women on PMTCT. In table 4, only one of five countries had a forecast of number clients to be tested for HIV in a 12-month period; this projection was 20 times the number of clients tested the previous year posing a question on the accuracy of either figure.

¹¹ Challenges with data quality

Number of Sites

There are 506 ART treatment sites and 6,891 HIV testing sites (figure 4).

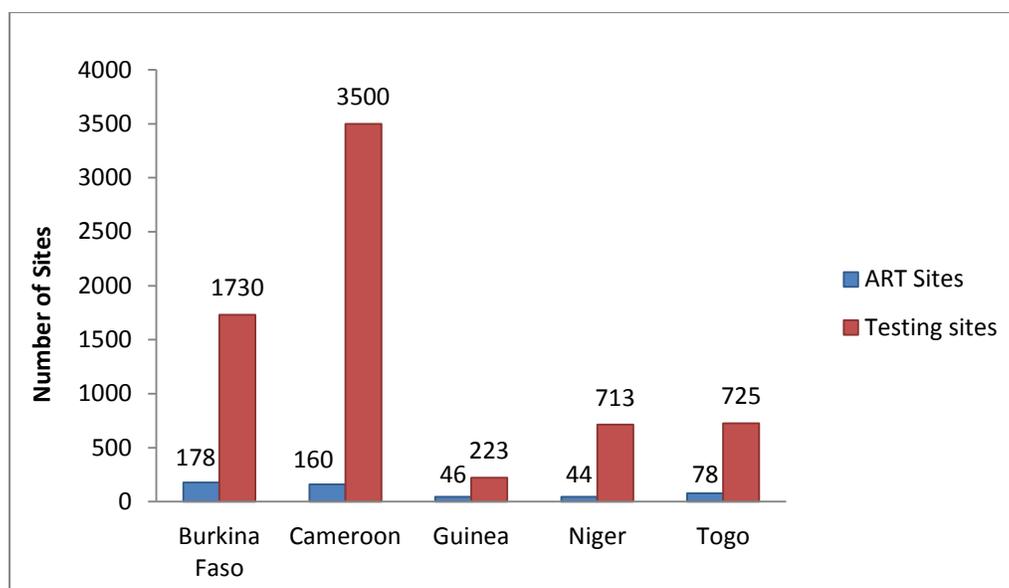


Figure 4. Number of HIV testing and treatment sites

Table 5 summarizes the information presented in this section.

Table 5. HIV and Population Summary of Five Countries

Indicator	Number or percentage
Total population	72,940,118
Number of ART patients	254,305
Adult ART patients, percentage*	96%
Pediatric ART patients, percentage *	4%
Number of women on PMTCT*	26,341
Clients tested for HIV in one year*	1,536,960
Number of patients enrolled/monthly	2,731
Number of ART sites	506
Number of HCT sites	6,891

* Data are missing for at least one country

Stakeholder Mapping

To fully understand the role of key players in HIV and AIDS commodity management, respondents provided a list of stakeholders and their respective roles (table 6).

Situational Analysis of Information Systems and Coordination for Managing HIV and AIDS Related Commodities in Five West and Central African Countries

Table 6. List of Stakeholders by Country

Technical Area	Burkina Faso	Cameroon	Guinea	Niger¹²	Togo¹³
Distribution	CAMEG, Government, Global Fund, World Bank, CECI, CHINA, UNICEF, UNDP, WFP, WHO, UNFPA, UNAIDS, GTZ, Plan Burkina, ESTHER,	CENAME, CAPR	GIZ, MSF/B, PCG ¹⁴ , PNPCSP(MS)	Government, Global Fund, UNICEF, ONPPC	Clinton Health Access Initiative (CHAI), CNLS, Global Fund, Government, UNICEF
Permits & Waivers	DGPML	DPML	DNPL	DPHL/MT	DPLET
Procurement	CAMEG,	CHAI, CENAME, Government, World Bank, AFD, PEPFAR, Global Fund	Global Fund, GIZ, MSF/B, PCG, SE/CNLS, UNICEF	Government, Global Fund, UNICEF, Esther (France)	AXIOS, CHAI, CNLS, CORRIDOR, Global Fund, UNICEF Government, GSK, OCDI, PLAN Togo, PSI, UNFPA
Quantification	DGPML, CAMEG,	CHAI, DPML, MSH/SIAPS, CNLS	SE/CNLS, PCG, PNPCSP, DNPL (MSHP), UNAIDS, MSF/B, SOLTHIS, GIZ, UNICEF, DREAM, REGAP+, REFIG	DPHL/MT, ONPPC, CISLS, SOLTHIS	
Standards/ QC			DNPL		
Storage	CAMEG	CENAME, CAPR	GIZ, MSF/B, PCG	ONPPC, Government, Global Fund, UNICEF	CHAI, CNLS, Global Fund, UNICEF Government,
Supply Planning	DGPML, CAMEG	CENAME, CNLS, SIAPS	SE/CNLS, PCG	ONPPC, CISLS	CAMEG, PNLS
TA	ESTHER	SIAPS		SOLTHIS (France)	CHAI

¹² Other stakeholders include; ANIMAS/KFW, CONCERN, IPPF, FEI 5%

¹³ The Government of Togo and the Global Fund are the main providers of ARV drugs in the country. The Global Fund is procuring about 70% of Adult first line regimen, 100% of Pediatric ARVs and 100% of second-line regimens. The Global Fund is also paying 5% to CAMEG as storage and distribution fees.

¹⁴ Also includes Direction Prefectorale de la Santé (DPS) and Direction Regionale de la Santé (DRS) at Préfectoral and regional levels respectively

In each country, there are a number of stakeholders supporting the different functions and levels of the supply chain. So coordination and use of similar tools in compiling and reporting of HIV and AIDS commodity data are needed to minimize duplication of efforts and enhance efficiency in the delivery of services. The mapping of these stakeholders provides a good opportunity for starting or strengthening discussions on coordination and provides an opportunity for the national program to organize quarterly and annual review meetings to discuss the reports compiled through the early warning system/dashboard.

Coordination

Table 7. Standardized Systems and Procedures in Medicines Management

Country	Implemented Systems or Procedures
Burkina Faso	<ul style="list-style-type: none"> • Technical committee for management of HIV and AIDS, sexually transmitted infections, and TB commodities
Cameroon	<ul style="list-style-type: none"> • In the process of establishing a quantification committee and formalizing the existing technical committee in charge of HIV and AIDS commodities management.
Guinea	<ul style="list-style-type: none"> • A central level technical committee to analyze stock status. • Quantification meetings to monitor procurement of HIV and AIDS commodities
Niger	<ul style="list-style-type: none"> • Comite technique d'approvisionnement (PSM technical working group) for HIV commodities and other HIV related information. • ART treatment protocol review committee (informal)
Togo	<ul style="list-style-type: none"> • Under the NACP leadership, a coordination committee reviews stock status of ARVs

Although countries are at different levels of coordination, stakeholders have implemented standardized systems and procedures that have one thing in common; monitoring the stock status of ARVs (table 7).

Additionally, each country has a committee or working group to coordinate and oversee different supply chain functions (annex G). The committees are hampered by poor attendance and lack of quality data. Committees that scheduled quarterly meetings were more likely to meet compared to those that scheduled monthly meetings.

There is a need to enhance the tools and procedures of these committees and to define a comprehensive terms of reference that will enable these committees function optimally and minimize a need for numerous committees. The coordination committees should involve all stakeholders managing or participating in ensuring availability of HIV and AIDS commodities. Coordination meetings should be regularized to preferably a quarterly basis and action oriented minutes of this meeting shared with all stakeholders and Ministry of Health officials.

HIV and AIDS Funding

Table 8 below presents the funding levels as well as the gaps in HIV and AIDS program needs.

Table 8. Funding Levels and Gaps

	Burkina Faso	Cameroon	Guinea	Niger	Togo
Total number of sites (ART and Testing)	1908	3660	269	757	803
Total number of active patients on ART	41, 849	136,439	27,780	12,516	35,691
Funding Levels (USD)	119,094,527 ¹⁵	90,426,508	9,515,599	14,116,363	12,266,430
Number of stakeholders providing the funding levels/total	19/19	6/12	2/11	8/9	3/12

There is gap in funding information. Funding levels of some stakeholders in Cameroon, Guinea, Niger, and Togo were not readily available at the time of the interview. From this study, the funding available for HIV programs for all five countries is estimated to be more than USD 245 million. Cameroon had an estimated gap of USD 11 million for procuring ARVs, PMTCT, and laboratory commodities; Guinea had an estimated gap of USD 21 million for procurement coordination, commodities procurement, storage and distribution; other countries did not indicate a specific gap at the time of survey.

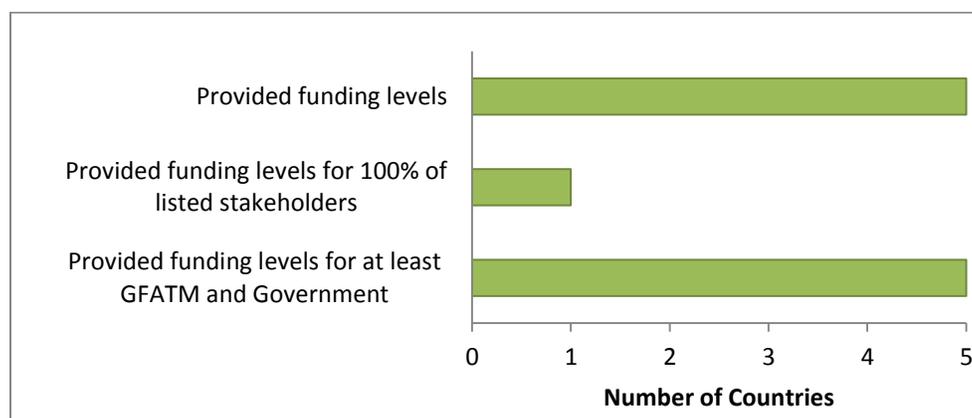


Figure 5. Number of countries reporting on funding for HIV and AIDS programs

¹⁵ Strategic framework for fight against HIV and HIDS (2011–2015).

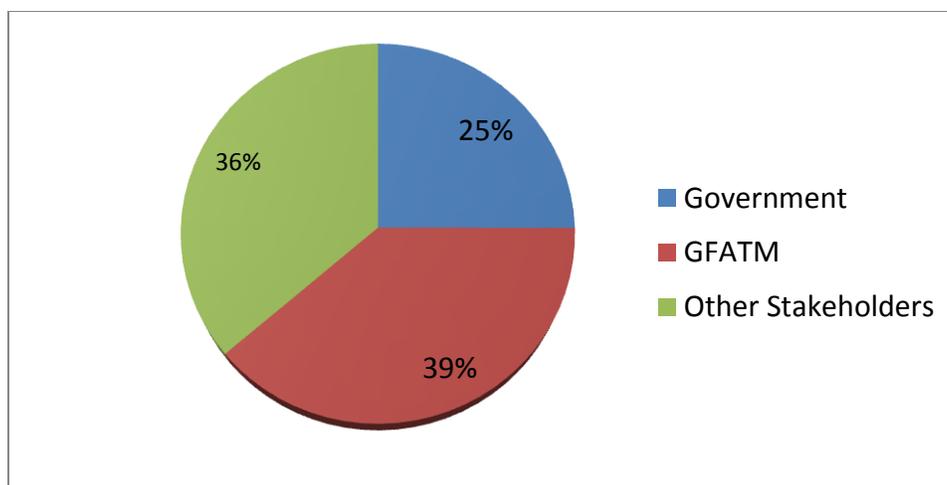


Figure 6. Funding by source and percentage

The largest funding source (figure 5) is the Global Fund; therefore, delays in disbursement of Global Funds will have a ripple effect of stock-out. Governments contribute an estimated 25% of the resources used in managing HIV programs and should equally receive adequate attention to ensure that there is no delay in in disbursement of these funds.

From the analysis in table 8 and figures 5 and 6, the realistic funding levels and gaps (the gap analysis) has not been adequately evaluated. Without clear knowledge of the gaps over time, it will be difficult for countries to reach their planned coverage and achieve an AIDS free generation let alone achieving sustainable HIV and AIDS programs. Therefore, transparency in commodity management for better planning and coordination has to be enhanced. The national HIV and AIDS control programs should optimize coordination meetings to share reports and data so that all stakeholders have the same perspective of the problem and use this opportunity to resolve identified problems and gaps.

Challenges in Accessing Funding

Only Cameroon, Guinea, and Togo mentioned the challenges faced in accessing funds. These challenges include—

- Suspension of grants by the Global Fund
- Complicated administrative procedures to mobilize government funds and lack of planning in Cameroon
- Lack of funding and disbursement delays in Guinea
- Unsecured government funding; complex Global Fund procedures and there are no written commitments from other donors except for the Global Fund in Togo

All these challenges can easily be addressed or mitigated when all stakeholders share data and reports to not only to identify funding gaps but also to identify technical assistance needs so that plans are made well in advance to fill the gaps.

Selection of ARVs and RTKs

Registration

Countries provided a list of all ARVs available in the public sector and their registration status. These findings are summarized in table 9 (a detailed list of products is presented in annex H).

Table 9. Product Registration

	Total # ARVs/RTKs in the Public Sector	Registration Status	Time Taken to Register a New Product (months)
Burkina Faso¹⁶	19/3	All registered	3 to 12
Cameroon	11/3	Not available	6 to 12
Guinea	14/4	All registered	3 to 6
Niger	11/2	All registered	3 to 12
Togo¹⁷	17/3	Many are not registered	6

Table 9 shows that it takes 3 to 12 months to register products in these countries. The registration status of ARVs in Cameroon is unclear. Although it takes 6 months to register products in Togo, most of the products are not registered. There are challenges in registering products and this constraint can limit access to quality assured ARVs. There is a need to review registration systems and determine the challenges so that feasible interventions can be identified and implemented.

HIV and AIDS Treatment Protocols

Table 10. HIV and AIDS Treatment Protocols

	Burkina Faso	Cameroon	Guinea	Niger	Togo
Is there an updated HIV and AIDS treatment protocol?	Yes, seen	Yes, not seen	Yes, seen	Yes, not seen	Yes, seen
Date of last update	2009	2010	2011	2012 ¹⁸	2010
Frequency of protocol review meetings in a year/ date of last meeting	Every 6 months, November 2013	Not provided	Monthly Date not provided	When needed December 2013	Not provided
Current CD4 cut-off point for starting ART	350	350	500	350	350

¹⁶ Pending meeting by the commission which are not regular

¹⁷ They use SIAMED to record drugs registered in Country. The Pharmacy department was not able to provide us the list of ARV drugs registered. But they said that many drugs are not registered.

¹⁸ A meeting for the next revision is planned for March 17-21, 2014

All countries have HIV and AIDS treatment protocols; however, the presence was not verified in Cameroon and Niger (table 10). Countries have put in place a treatment protocol review process that is managed at the national level by a group of members presented in annex I. This process however, is not well structured to guide scheduled or annual reviews of ART guidelines, review of compliance to guidelines and review of challenges that need to be addressed in order to enhance compliance to guidelines.

ART Regimens

The number of first- and second-line ART regimens is presented in figure 7 below and detailed treatment regimens are in annexes J and K.

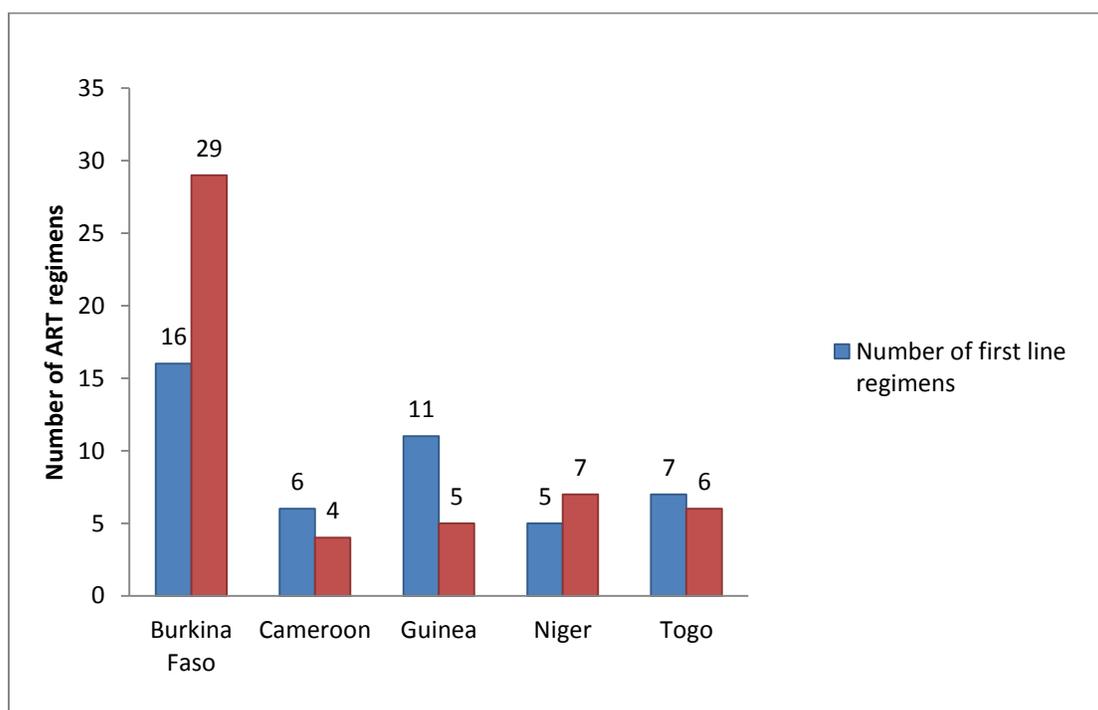


Figure 7. Number of ART Regimens

Overall, the average number of first- and second-line ART regimens per country is 9 and 10, respectively. Having a limited number of first regimens (4 to 6) has several advantages including easier supply chain management and lower costs. Countries should therefore minimize or optimize the number of regimens without compromising the quality of care. Fixed-dose combinations are highly recommended.

Quantification and Procurement

Quantification

Quantification involves estimating the quantities needed of a specific item, the funding required for purchasing the item, and when the products should be delivered to ensure an uninterrupted supply for the program. The quantification process consists of two components, forecasting and supply planning.

Findings for the quantification process, tools and challenges are summarized in figure 8 and annex L. It was found that what countries refer to as quantification is mainly forecasting and aspects of procurement but minimal focus on supply planning. Also, at the national level all countries use Excel™-based tools for their annual quantification exercises. These tools have only one forecasting function. Therefore, quantification in these countries falls short of completing the process, affecting the whole planning around managing the shipment and distribution of products to service delivery points. Tools with forecasting and supply planning functions are recommended to complete the quantification process.

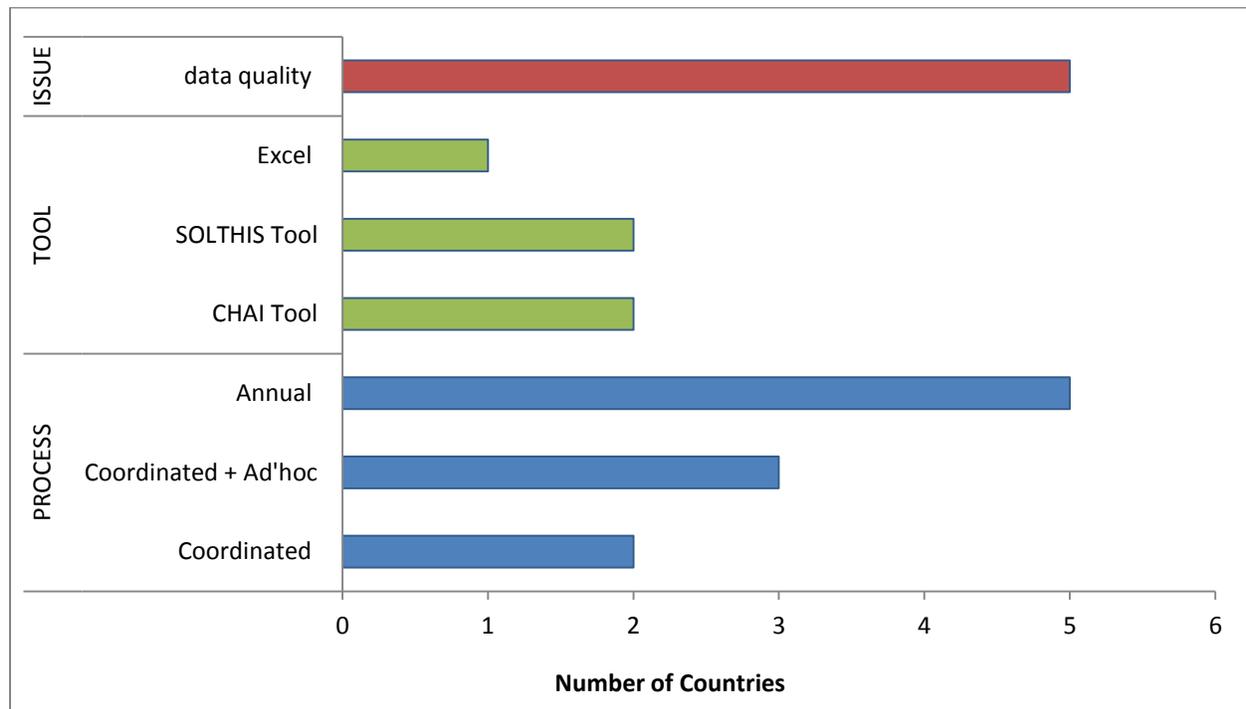


Figure 7. Number of countries reporting on key aspects of quantification

In figure 7, all countries reported challenges with the availability and quality of data for managing HIV and AIDS commodities.

Not all countries conducted their quantification annually as reported. For Cameroon, Guinea, and Togo, quantification is based on ad hoc requests from different donors. The number of

quantification-related meetings and the frequency of updating ARV commodity forecasts varied from once to several times per year. This indicates that quantification is not a comprehensive process that takes into account HIV and AIDS commodity needs at the national level irrespective of funding. There is a need for a more comprehensive quantification process as well as structured and planned review of quantification estimates.

Countries rely heavily on the morbidity method of quantification. However, availability of quality data is the most common challenge. Therefore, it is likely that countries are using morbidity data which is incomplete, sometimes inaccurate, and not timely. This is likely to throw off most quantification activities accomplished in the focus countries. There is an urgent need to enhance the quality of morbidity and consumption data to enhance accuracy of the quantification process.

Procurement

All countries assessed have many gaps in information related to the HIV and AIDS commodities procurement and it was difficult to determine whether it was not available or officers were not confident or comfortable providing the information (annex M). There is a need to review each of these key components of the procurement process to determine approaches that will enhance accuracy of data, transparency, and efficiency.

Committees

Countries have established committees to oversee quantification of commodities (annex N). A procurement committee is only available in Guinea while Cameroon is the only country without an information system committee. The quantification, procurement, and information systems committees have been established. It is evident that the membership is similar across committees. There is a need to identify synergies across committees to minimize duplication of efforts.

Distribution

Distribution management aims at ensuring constant supply of pharmaceuticals and supplies in the most efficient and cost effective way. This section focuses on the storage and inventory management aspects of the distribution system.

Storage

In all countries, arrangements have been made to cover the storage costs to manage donor supplied ARVs and RTKs (annex O). However, the presence of standard operating procedures (SOPs) for storage and distribution plans could not be ascertained in most countries. ARVs and RTKs are distributed to a number of government distribution sites as presented in tables 11 and 12.

Table 11. ARV Government Distribution Sites

		Number of sites visited	Distribution frequency	Percentage receiving ARV orders in full	Percentage receiving ARV orders on time
Burkina Faso	No data				
Cameroon	Provincial/regional depots	10	Quarterly ¹⁹	No data	No data
Guinea	Provincial/regional level hospitals	9	Quarterly	100%	78%
	District level hospitals	20		100%	90%
	Health center level	98		100%	73%
Niger	National/provincial/regional level hospitals	14	Quarterly	100%	86%
	District level hospitals	42		Data are not available at the central level—only regions can give accurate data	
	Health center level	400			
Togo²⁰	Provincial/regional depots	6	Monthly	100%	100%

For the most part, facilities received full orders of ARVs. However, the orders were not received on time.

Table 12. RTKs Government Distribution Sites

		Number of sites visited	Distribution frequency	Percentage receiving RTK orders in full	Percentage receiving RTK orders on time
Burkina Faso	No data				
Cameroon	No data				
Guinea	Provincial/regional level hospitals	9	Quarterly	89%	88%
	District level hospitals	20		100%	90%
	Health center level/VCT	104		100%	93%
Niger	Provincial/regional level hospitals	14	Quarterly	100%	86%
	District level hospitals	42		Data are not available at central level. Only region can give accurate data	
	Health center level	400			
Togo²¹	No data				

¹⁹ It is currently monthly distribution due to stock-outs

²⁰ Data are not collected by CMS and NACP

²¹ Data are not collected by CMS and NACP, Distribution of RTKs from CMS to hospitals and districts is quarterly?

Not all facilities in Guinea received their full orders for RTKs and none of the received orders were on time. As in the previous table, the central levels in Burkina Faso, Cameroon, and Togo, could not provide data of what was happening at the lower levels. The central/national levels need to know all the distribution sites for better forecasting, resource allocation and planning for distribution.

ARVs and RTKs are distributed on a quarterly basis to 11 nongovernment distribution sites in Guinea and 2 in Niger (table 13).

Table 13. ARVs and RTKs Non-Government Distribution Sites

		Number of Sites visited	Distribution frequency	Percentage receiving ARV and RTK orders in full	Percentage receiving ARV and RTK orders on time
Guinea	Health facility/Pharmacy	11	Quarterly	100%	100%
Niger	Faith-based Hospital	1		100%	100%
	Organisations non gouvernementales (ONG)	1	Quarterly	100%	100%

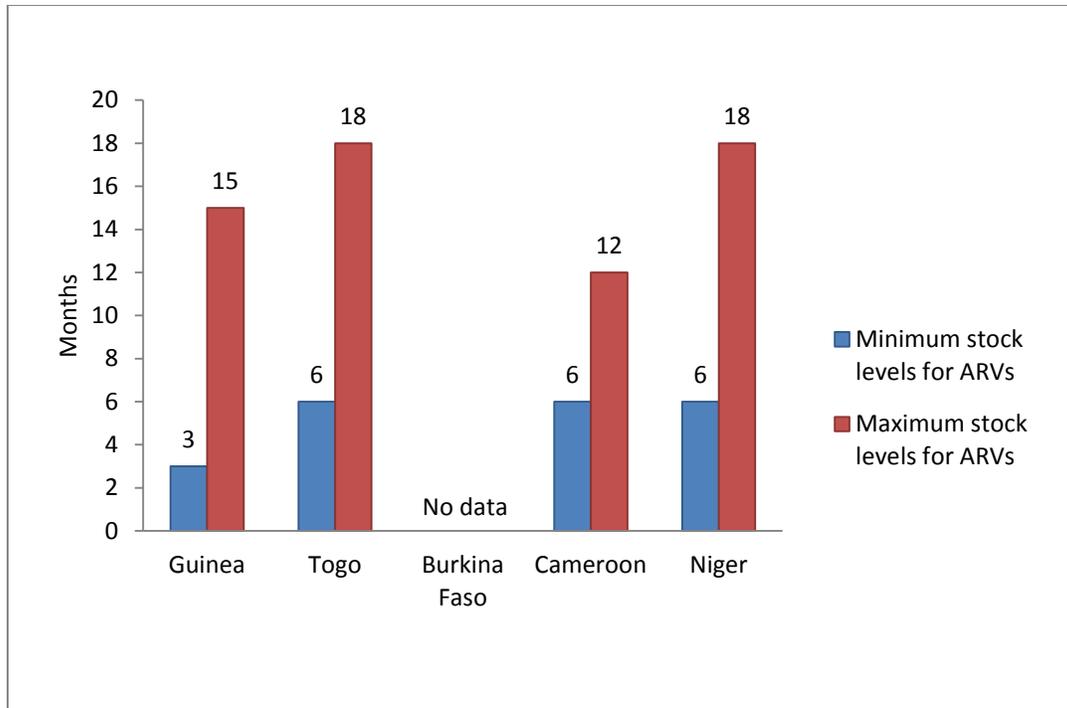
Inventory Management

Inventory management is the management of the routine ordering process.²² Good inventory management maintains a steady supply of commodities throughout the supply chain. These inventory management aspects are presented in annex P.

In 3 out of 5 countries, there was a stock-out of ARVs in the past 6 months (prior to the assessment) and in 2 of the 5 countries there was a stock-out of RTKs. Late deliveries from VPP, lack of security stock and lack of funding were some of the factors contributing to the stock-outs. Only two of the five countries have procedures for placing emergency orders.

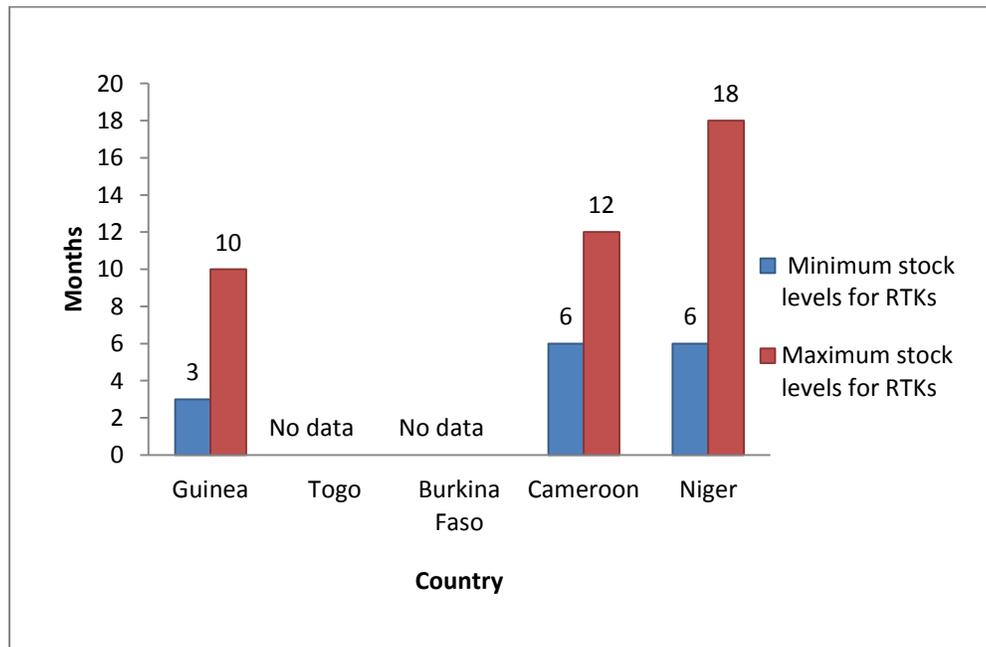
Four countries reported to have established minimum and maximum stock levels for ARVs and RTKs, these are presented in figures 9 and 10. The reported ARVs stock levels ranges from 3 to 6 months minimum stock levels and 12 to 18 months for maximum stock levels. Depending on the donor, a procurement lead time of 6 weeks to 6 months was reported in two countries, thus a minimum stock level of at least 6 months is recommended. Likewise, a maximum stock level of 18 months is high and may increase the risk of expiry and wastage.

²² Management Sciences for Health 2012. MD-3. *Managing Access to Medicines and Health Technologies*. Arlington, VA: Management Sciences for Health



NB: No data for Burkina Faso

Figure 9. Minimum and maximum stock levels for ARVs



NB: No data for Burkina Faso and Togo

Figure 10. Minimum and maximum stock levels for RTKs

Table 14. Months of Stock Available (ARVs and RTKs)

	Burkina Faso ²³	Cameroon	Guinea	Niger	Togo
3TC	-		11		
ABC 300 mg	-		3	9	42.1
ABC/ 3TC 60/30 mg	-				33.2
ABC/3TC 600 /300 mg	-				12.3
ATV/R	-	4.5			9.8
AZT/3TC 60/30 mg	-		3	2	35.8
AZT/3TC 300/150 mg	-	1	15	17	19.9
AZT/ 3TC/NVP/60/30/50 mg	-			37	19.9
AZT/3TC/NVP 300/150/200 mg	-	1	4	10	7.7
D4t 10	-		3		
D4T/3TC/NVP	-		7		
ddl 250 mg	-		3	317	
ddl gel 400 mg	-		12	7	
EFV 30 mg	-		2	95	
EFV 200 mg	-				29.3
EFV 600 mg	-	2.5	5	1	4
LPV/R 200/50 mg	-	3		24	4.4
LPV/R 80/20 mg sol	-				34.9
NVP 200 mg	-	4	7		6.7
NVP 50 mg/5 ml	-				11.6
TDF/3TC	-	2.5	9	10	5.6
TDF/3TC/EFV	--	3	10		14.5
Determine HIV KIT	-				5.3
FIRST RESPONSE Kit	-				5.3
IMMUNOCOMB II HIV 1/2 COMBFIRM	-				20.5
Test rapide de confirmation VIH 1/2	-		4		
Test rapide de dépistage VIH 1/2	-		6		
Test rapide de dépistage VIH/SYPHILIS DUO	-		6		
Test rapide VIH discriminant 1/2	-		4		

As per minimum and maximum stock levels of ARVs indicated in figure 9 and table 15, 100% of ARVs in Cameroon were below the minimum stock level of 6 months. In Guinea, 35.7% (5 out of 14) ARVs were at or below the minimum stock level of 3 months. Of 11 ARVs in Niger, 2 (18.2%) were below the minimum stock level of 6 months and 5 (45.4%) ARVs were above the maximum the stock level of 18 months. Similarly, of the 16 ARVs in Togo, 4 (25%) and 7 (44%)

²³ There was no data from Burkina Faso

were respectively below and above the minimum and maximum stock levels. This indicates that countries are either understocked with a risk of stock-outs or overstocked with a risk of expiries and wastage.

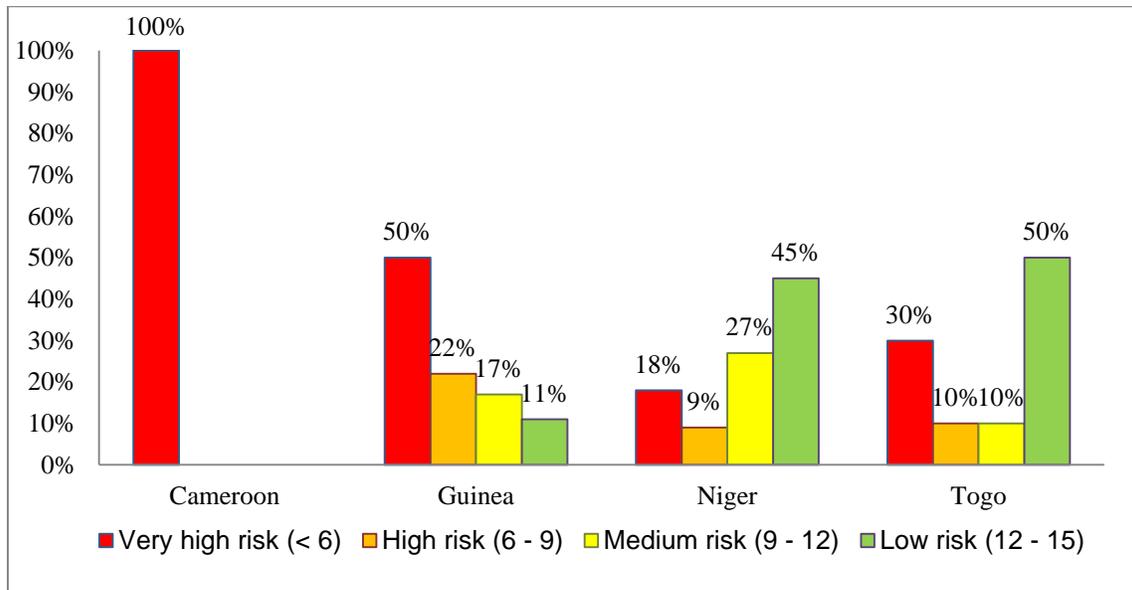


Figure 11. Risk assessment in stock of HIV and AIDS commodities at the central level

Based on a standardized risk assessment using estimated time to have stock arrive in the country in figure 11, it is evident that all countries had a number of their products in the “very high risk” and “high risk” categories. A major goal of the SIAPS WA project is to help focus countries to detect the risk of stock-outs ahead of time. This will allow measures such as supply planning, coordination and advocacy are put in place to mitigate any risk of ARV and RTK stock-out.

Information System

An information system integrates data collection, the processing, and presentation of information that helps staff at all levels make evidence based decisions (tables 15, 16, and 17).

Table 15. Data Collection Tools

	Burkina Faso	Cameroon	Guinea	Niger	Togo
Key data elements collected and compiled by the information system	Stock status, consumption and morbidity data	Morbidity and consumption data	Stock status, consumption and morbidity data.	Stock status adjusted to expiries, consumption and morbidity, quantity ordered and needed	Stock status adjusted to losses, consumption and morbidity data
Levels of the Information system that are computerized	None	Central, regional and a few ART sites	CMS, regional health office, and district health office	Central level to aggregate data collected from lower levels	Central level, (NACP and CMS) and a few ART sites
What levels of the Information system are paper-based?	All levels ²⁴	Sites	Sites	Regions, district and sites	Sites
Computerized tools used	None	SAGE saari, Excel	CHANNEL, Simple 1	Excel sheet	SAGE at the CMS, LOGONE and ESOPE (some ART sites).

Information flows from sites to districts, then regions, then the central level where aggregated data is used to generate information that is shared with stakeholders for making decisions. Except for Burkina Faso, countries use computerized tools to process information at the central level while other levels are paper-based systems (table 15). There is a significant lack of use of electronic tools in the management of patient and commodity data. This is an area that needs increased focus to increase the accuracy and timeliness of data that is used in quantification of commodities.

²⁴ The CMS is producing a report that does not show consumption data.

Table 16. Data Collection Process

	Burkina Faso	Cameroon	Guinea	Niger	Togo
Are report forms standardized?	No	No	Yes, not seen	Yes	Yes, seen
Are instructions available for data collection and reporting procedures	Yes, not seen	Yes, not seen	Yes, not seen	Yes, not seen	Yes, seen
Are feedback reports provided routinely to the units collecting the data?	No	No	No	No	No
Does a schedule exist for report preparation, data transmission, and feedback reporting	Yes, not seen	No	Yes, not seen	Yes, seen	Yes, seen
Percentage of facilities report information on time?	Not available	Low rate	30%	50%	<ul style="list-style-type: none"> • 100% ART sites • 35% VCT sites • 67% PMTCT sites

The reporting forms are not standardized in Burkina Faso and Cameroon. All five countries have instructions for data collection and reporting; however, feedback reporting is not part of the routine. While most countries have a reporting schedule, the majority of facilities do not report on time with reporting rates as low as 30% (table 16). Low reporting rates coupled with poor data quality (in terms of accuracy and timeliness) are the biggest challenges affecting the use of information for making decisions (table 17).

There is a need to develop a clear system of reporting on patient and commodity data that ensures that updated reports are available to all stakeholders and decision makers wherever and when they need this information. No feedback reports are provided to facility managers and staff and making these reports available to health facility, district, and regional staff members would allow them to see the benefits of the data they submit and also appreciate the gaps in the data they provide so that they can develop strategies to submit accurate data and on time.

Table 17. Use of Data for Decision Making

	Burkina Faso	Cameroon	Guinea	Niger	Togo
Who are the key users of data on commodity management?	HIV and AIDS, TB, and sexually transmitted infections technical committee	GTC/CNLS, DPML	Comité de suivi des produits VIH, Comité de quantification, Comité technique médicale	ART sites, regional and central institutions (ONPPC, CISLS, ULSS, DPHL/MT)	NACP PSM, NACP M&E unit, other NACP units (treatment and care, PMTCT, etc.)
Frequency of committee's meetings in a year and date of last meeting	Quarterly January 2014	N/A	Monthly January 2014	Monthly January 2014	Monthly January 2014
Challenges affecting the use of information for decision making	<ul style="list-style-type: none"> Poor data quality Unreliable commodities delivery dates 	<ul style="list-style-type: none"> Low reporting rates 	<ul style="list-style-type: none"> Lack of logistics capacity Weak reporting system Unqualified data collectors 	<ul style="list-style-type: none"> Poor data quality, weak reporting system to monitor expiries 	<ul style="list-style-type: none"> Poor data quality Low reporting rate for RTKs

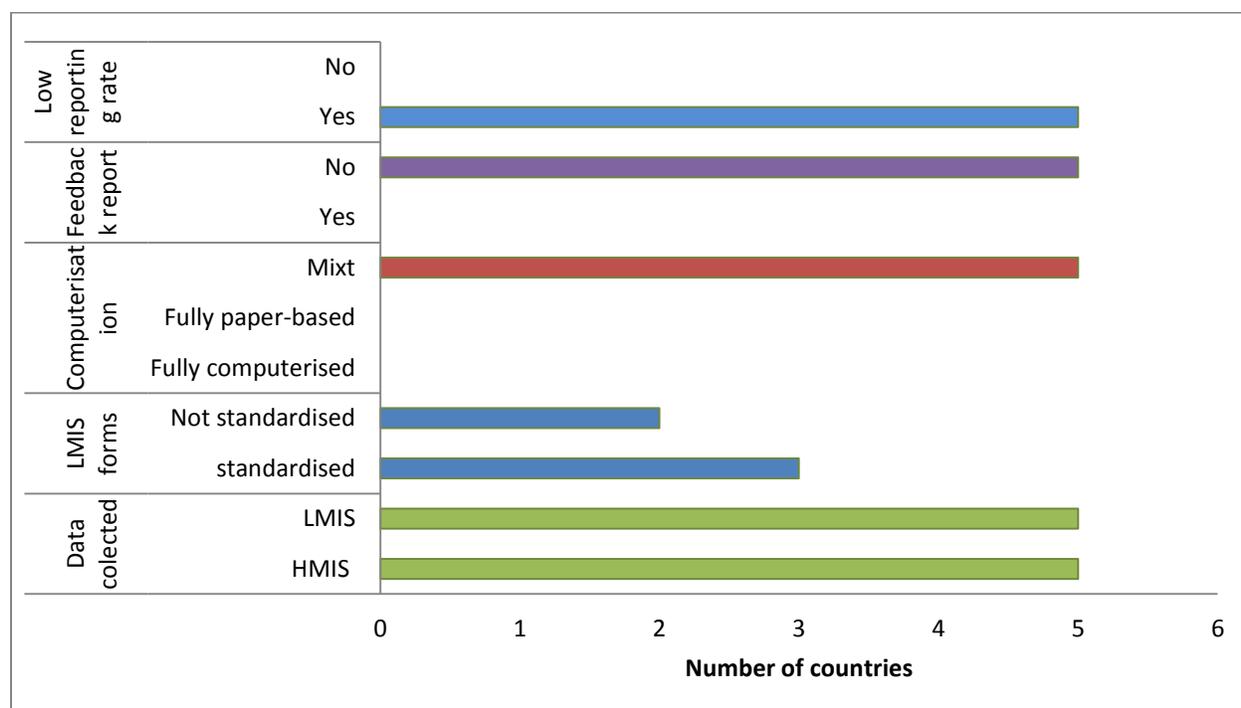


Figure 12. Summary of information systems used and challenges faced in managing HIV related data

In figure 12, the key challenges reported are poor reporting rates and no feedback reporting. . All countries reported using a mixed computerized and paper-based system in managing HIV-related data with the central level being computerized while the district and facility levels are paper-based. There is no system for providing feedback reports and most of the data remains in a raw format with minimal decisions made based on analyzed data.

Technical Assistance Requests

The following are technical assistance requests were presented by the NACP in Togo—

- Re-design of the LMIS systems (including developing SOPs manual and training users)
- Developing quantification SOPs
- Training on forecasting and supply planning
- Implementing the Electronic Dispensing Tool

Health Facility level HIV Data Management for Patients and Commodities

A number of facilities managing HIV and AIDS commodities were visited (table 18).

Table 18. Health Facilities Visited by Country

Country	Facility
Burkina Faso	<ul style="list-style-type: none"> • District sanitaire de Bogodogo, • Hôpital de district de Bogodogo
Cameroon	<ul style="list-style-type: none"> • Hôpital Central de Yaounde
Guinea	<ul style="list-style-type: none"> • No facility visited
Niger	<ul style="list-style-type: none"> • Centre Hospitalier Regional (CHR) Poudriere • Hôpital National
Togo	<ul style="list-style-type: none"> • Centre Hospitalier Prefectoral (CHP) d'Assahouan • Organisations non gouvernementales (ONG) Aides Médicales et Charité (AMC) • Centre hospitalier universitaire (CHU) Sylanius Olympio

Coverage

Table 19. Number of ART Patients

	Burkina Faso	Cameroon	Niger		Togo		
	Hôpital du district de Bogodogo	Hôpital Central de Yaoundé	CHR Pourdriere	Hôpital national	CHP d'Assahouan	ONG AMC	CHU Sylanius Olympio
Number of active patients on ART	3,039	6,477	672	878	168	954	3,198
Number of adults on first-line regimen	No data	6,002	No data	No data	162	756	2,586
Number of adults on second-line regimen	No data	445	No data	No data	2	128	314
Number of pediatric patients on first-line regimen	No data	30	No data	No data	4	55	263
Number of pediatric patients on second-line regimen	No data	0	No data	No data	0	15	35
Monthly number of new patients started on ART	24	14	13	6	9	64	
Number of post exposure prophylaxis cases	No data	6	No data	No data	0	1	55
Number of women on PMTCT	No data	26	45	No data	9	No data	No data
Number of people tested for HIV (year 2013)	No data	No data	1,650	No data	317	230	No data

Facilities provided complete information on program coverage as requested (table 19). There is a need to find out if “no data” meant the mere absence of data or zero patients. Apart from the number of patients on ART and number of new patients started on ART, other data elements were incomplete across the countries indicating a clear gap in important information that needs to be available and collected.

Treatment Protocols

Table 20. ART Treatment Protocol

Country	Facility	Is there an updated HIV/ AIDS treatment protocol (date last updated)	First-line ART regimen	Second-line ART regimen
Burkina Faso	Hôpital du district de Bogodogo	No	AZT/3TC/ABC	AZT/3TC/ATV-r
			AZT/3TC/EFV	AZT/3TC/LPV-r
			AZT/3TC/NVP	ABC/3TC/ATV-r
			ABC/3TC/NVP	ABC/3TC/LPV-r
			ABC/3TC/EFV	TDF/3TC/ATV-r
			TDF/3TC/NVP	TDF/3TC/LPV-r
			TDF/3TC/EFV	
Cameroon	Hôpital Central de Yaoundé	Yes, not seen (2013)	AZT/3TC/EFV	ABC/ DDi / EFV
			AZT/3TC/NVP	ABC/DDi/ LPV-r
			TDF/3TC/EFV	AZT/3TC/ATV-r
			TDF/3TC/NVP	AZT/3TC/LPV-r
				TDF/3TC/ATV-r
				TDF/3TC/ABC/LPV-r
				TDF/3TC/DDi/LPV-r
				TDF/3TC/LPV-r
Niger	CHR Poudiere/Hopital national	Yes, not seen (2012)	AZT/3TC/EFV	AZT/3TC/ATV-r
			AZT/3TC/NVP	AZT/3TC/LPV-r
			TDF/3TC/EFV	TDF/3TC/ATV-r
				TDF/3TC/LPV-r
Togo	CHP d'Assahouan	Yes, not seen (2010)	AZT/3TC/EFV	TDF/3TC/ATV-r
			AZT/3TC/NVP	TDF/3TC/LPV-r
	ONG AMC	Yes, seen	TDF/3TC/EFV	
			AZT/3TC/EFV	ABC/3TC/ATV-r
			AZT/3TC/NVP	ABC/3TC/LPV-r
			ABC/3TC/NVP	AZT/3TC/ATV-r
			TDF/FTC/EFV	AZT/3TC/LPV-r
				TDF/3TC/ATV-r
				TDF/3TC/LPV-r
Togo	CHU Sylanius Olympio	Yes, seen	ABC/3TC/EFV	ABC/3TC/ATV-r
			ABC/3TC/NVP	ABC/3TC/LPV-r
			AZT/3TC/ABC	AZT/3TC/ATV-r
			AZT/3TC/EFV	AZT/3TC/LPV-r
			AZT/3TC/NVP	TDF/3TC/ATV-r
			TDF/3TC/EFV	TDF/3TC/LPV-r
			TDF/3TC/NVP	

The Hôpital du district de Bogodogo in Burkina Faso did not have any ART treatment protocol on the day of the visit. Interestingly, there are 8 second-line ART regimens at the Hôpital Central de Yaoundé compared to 4 that were reported by the NACP. The hospital also reported to have 2013 ART treatment guidelines (not verified) while the national NACP reported 2010 guidelines. Treatment guidelines are powerful tools in promoting rational medicines use and facilitating supply chain management, so it is important to have these guidelines up-to-date so that they can be aligned with forecast and procurement plans.

Distribution

Except for facilities in Togo, other facilities do not have SOPs for storage and inventory management (annex Q). Also, none of the all facilities has procedures established for placing emergency orders.

Facilities provided the months of stocks available for some ARVs. Of the 8 ARVs in Burkina Faso, 2 (25%) were below the minimum stock level and 3 (37.5%) were above the maximum stock levels (figure 12).

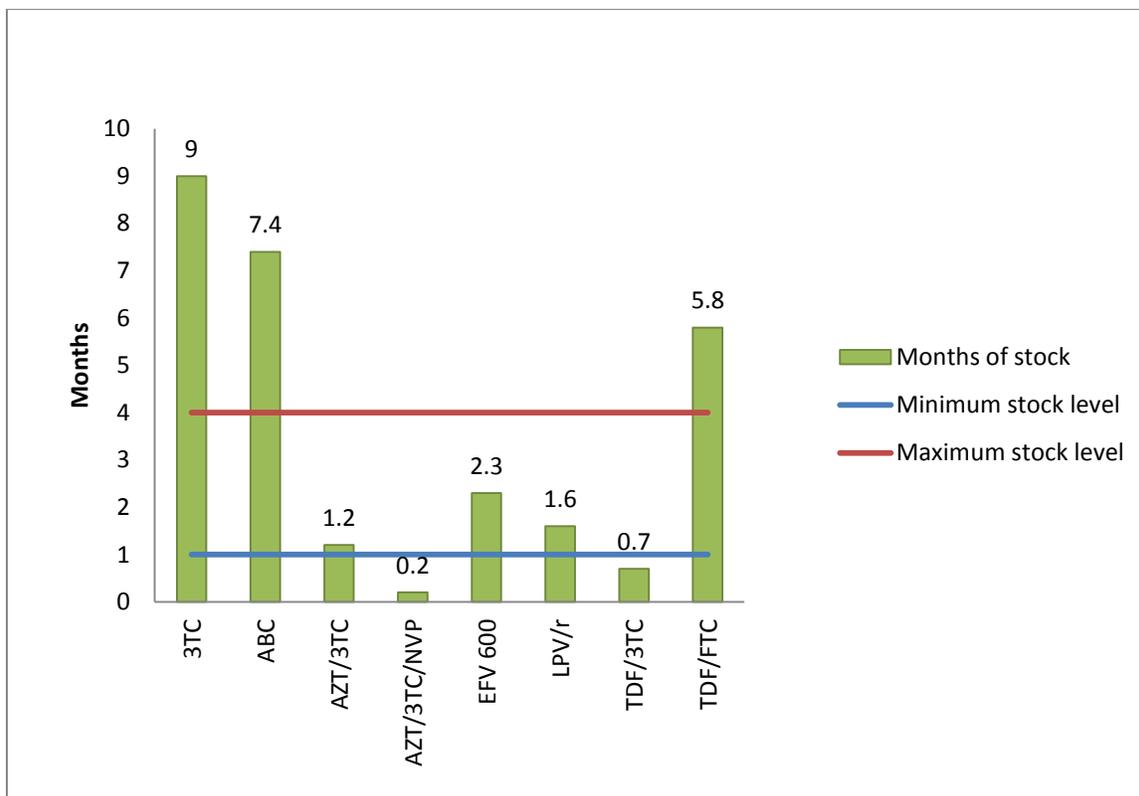


Figure 12. Months of ARVs in stock in Hopitaldu district de Bagodogo, Burkina Faso

All the 6 products in Cameroon were either below the set minimum stock levels or above the set maximum stock levels (figure 13). Although there are no set minimum stock levels in Niger, most (80%) ARVs at CHP have less than one month of stock (figure 14)

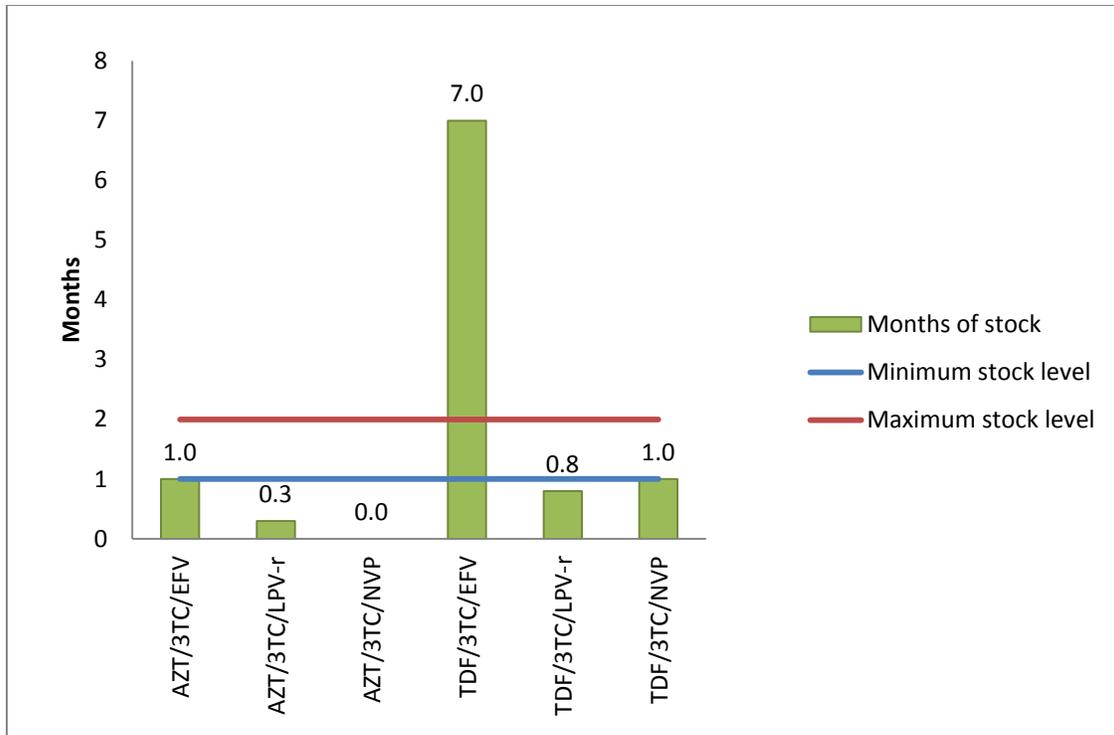


Figure 13. ARVs Months of Stock Hospital Central Yaounde Cameroon

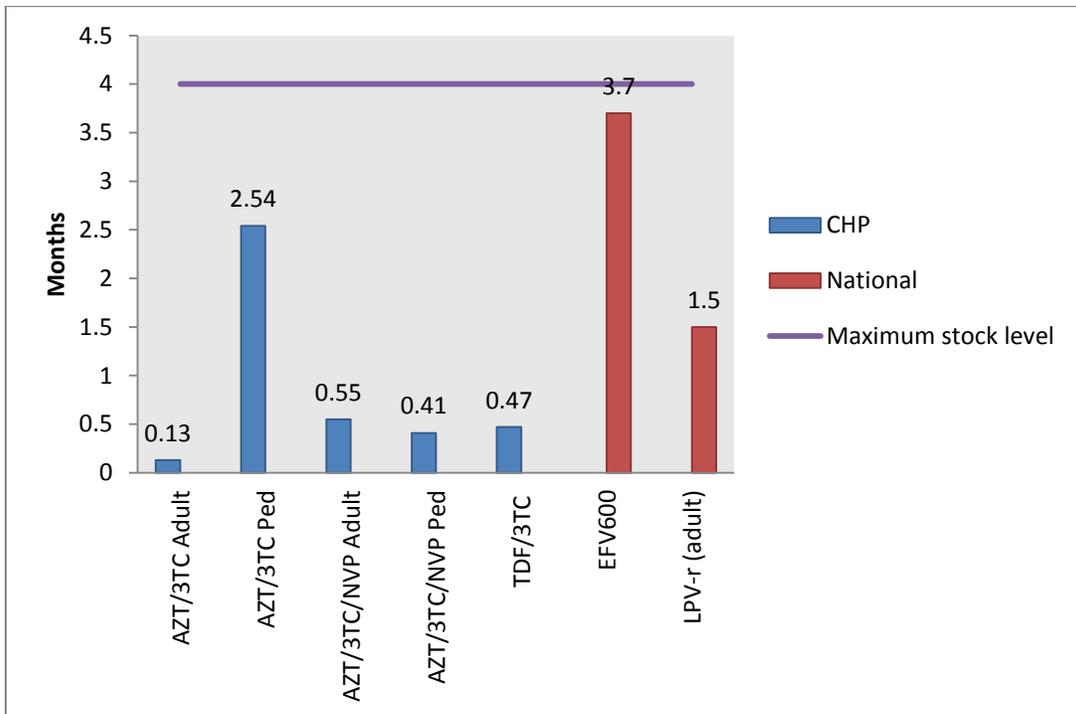


Figure 14. Months of ARVs in stock in Niger

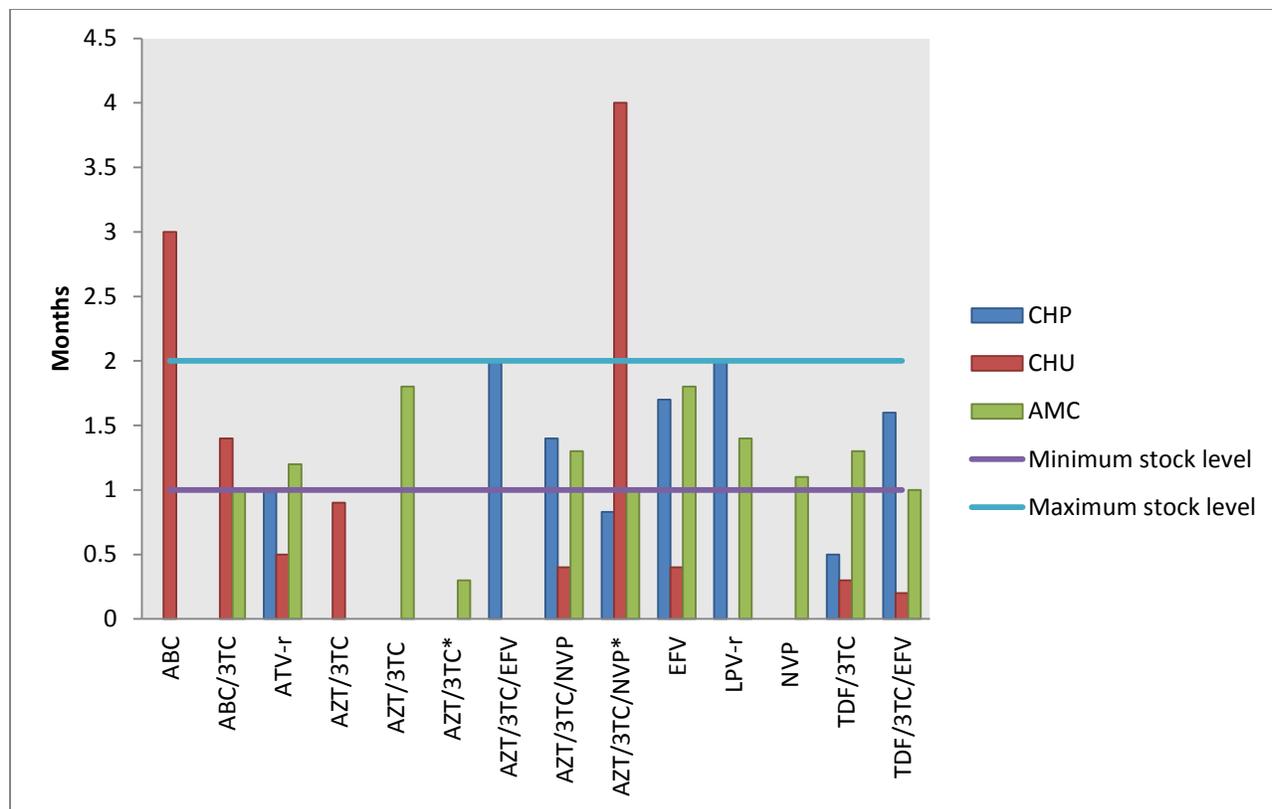


Figure 15. Months of ARVs in stock in Togo

The CHU in Togo has 2 (22%) ARVs below the set minimum stock level, 6 (67%) ARVs above the set minimum stock level, and 1% ARVs between the two set levels (figure 15).

Information Systems

All facilities were confirmed to have an established information management system. The system however, does not allow for facilities to receive feedback reports. There could to be problems in data transmission between facilities and the central level in these countries. While all facilities had up to date ART reports, at the time of the visit (annex R), 4 of the countries reported almost 50% of facilities not reporting on time.

RECOMMENDATIONS

Stakeholders Mapping, Coordination, and Funding

In each of the countries, there are a number of stakeholders supporting the different functions and levels of the supply chain. These functions are coordinated through working groups or committees in supply chain management. Countries have also implemented standardized systems and procedures to monitor the stock status of ARVs. These mechanisms, however, do not function as smoothly as they should; coordination meetings are not held as planned and they are not well attended. The following recommendations address these challenges.

- The national HIV and AIDS control programs should optimize coordination meetings to share reports and data so that all stakeholders have the same perspective of the problem and use this opportunity to request stakeholders to collect data on levels of funding and identification of funding gaps.
- There is a need to enhance the tools and procedures of the technical committees and to define a comprehensive terms of reference that will enable these committees function optimally and minimize a need for numerous committees. The coordination committees should involve all stakeholders managing or participating in ensuring availability of HIV and AIDS commodities. Coordination meetings should be held on a regular basis, preferably quarterly, and action-oriented minutes of this meeting shared with all stakeholders and Ministry of Health officials.
- Technical assistance providers are needed to help countries strengthen the coordination mechanisms as well as provide guidance to secure funding and avoid suspension of grants. The coordination platforms should form the basis for collecting and sharing information and all aspects of HIV and AIDS program management and serve and opportunity for developing advocacy strategies.

Product Selection

The assessment noted challenges in registering products and this constraint can limit access to quality assured ARVs. For example, although it takes six months to register products in Togo, most of the products are not registered. Therefore, there is a need to review registration systems and determine the challenges so that feasible interventions can be identified and implemented.

All countries have HIV and AIDS treatment protocols; however, all of them are outdated. The treatment protocol review process is not structured to guide scheduled reviews of ART guidelines, compliance to guidelines, and challenges that need to be addressed to enhance compliance to guidelines. There is a need to revise protocol review committees' terms of reference to ensure that all key stakeholders are involved in reviewing implementation and updating the ART guidelines. With the frequent changes in treatment guidelines for ART, an

annual review and update of treatment guidelines, based on WHO recommendations, is recommended.

Overall, the average number of first- and second-line ART regimens per country is 9 and 10, respectively. Having a limited list of first-line regimens (4 to 6) has several advantages including easier supply chain management, reducing the risks of stock-outs and better compliance to guidelines. Countries should therefore minimize the number of regimens without compromising the quality of care for the patients. The use of fixed-dose formulations is highly recommended.

Quantification and Procurement

Quantification is not a comprehensive process in most countries. A comprehensive quantification involves key players in the provision of HIV and AIDS services and considers the needs at a national level over a period of 1–3 years, irrespective of the source of funding, but clearly identifies the funding sources, assumptions used, and funding gaps. A comprehensive quantification will minimize the need for countries to respond to ad hoc donor requests (as all donors will be involved) and facilitate more structured and planned review of quantification estimates.

All countries use Excel™-based tools for their annual quantification exercises. Therefore, quantification in these countries falls short of completing the process and affecting the whole planning around managing the shipment and distribution of products to service delivery points. Tools with forecasting and supply planning functions are recommended to complete the quantification process. Also, forecast and quantification of commodities should be updated at least every six months, to keep up with expansion of services

Program managers indicated that they rely heavily on the morbidity method for quantification but also indicated that they lack data from health facilities and minimal involvement of health workers at health facilities as resource persons for quantification. There is a gap between national level and facility level generation, and use of commodity data. Therefore, it is likely that they are using morbidity data which is incomplete, sometimes inaccurate and not timely. This is likely to throw off most quantification activities accomplished in the focus countries. There is an urgent need to enhance the quality of morbidity and consumption data to enhance accuracy of the quantification process.

Storage and Inventory Management

Weaknesses in standard operating procedures for inventory management and distribution planning are noted in some countries especially at the facility level. Procedures for monitoring and managing stock levels are not well established leading to frequent stock-outs and overstock in some cases. Late deliveries from VPP, lack of security stock, and lack of funding were some of the factors contributing to the stock-outs. Therefore, the existing maximum and minimum inventory control system need to be evaluated. Maximum and minimum stock levels should be based on established order intervals, lead times, buffer stocks; available storage space, and other

program considerations and constraints should be set for the central level and for facilities.²⁵ This will enable facilities to better manage their inventory and allow the national program to maintain a healthy pipeline.

Information System

Information flows from sites to districts then to regions then to the central level where data aggregated is used to generate information that is shared with stakeholders for decision making. There is a significant lack of use of electronic tools in the management of patient and commodity data. Also the available tools are not standardized to monitor product availability and related data. This is an area that needs increased focus to increase the accuracy and timeliness of data that is used in quantification of commodities and planning of the HIV and AIDS programs. An improved and standardized LMIS for collection of patients and logistics data is recommended.

Low reporting rates coupled with poor data quality (in terms of accuracy and timeliness) are the biggest challenges affecting the use of information for decision making. There is a need to develop a clear system of reporting on patient and commodity data that ensures that updated reports are available to all stakeholders and decision makers wherever and when they need this information for decision making. Reports should be available to health facility, district and regional staff so that they can see the benefits of the data they submit and also appreciate the gaps in the data they provide so that they can develop interest in the data benefits of the data and develop strategies that will ensure that they submit accurate data and on time.

As part of improving HIV and AIDS information flow and management, a country and regional level dashboard is recommended as a media for compiling and analyzing information for technical discussions during coordination meetings to guide decision making at the country and regional level. The dashboard uses data from patient and commodity forecasts, pipeline analysis, and stock on hand data at the national and at facility levels. It then presents data on the several components of the ART program integrated in one place for easier visualization and appreciation of the key challenges. Amongst other benefits the dashboard will present patient data and the impact of the risk of stock-out in terms of the number of patients at risk.

²⁵ Allers, Claudia, Timothy O'Hearn, and Meba Kagone. April 2007. Sierra Leone: Supply Chain Assessment for ARV Drugs and HIV Test Kits. Arlington, Va.:USAID | DELIVER PROJECT Task Order 1.

CONCLUSIONS

It is evident that there is a need to improve information management and coordination in the delivery of HIV and AIDS services. The mapping of these stakeholders provides a good opportunity for partnership and collaboration between all stakeholders to share information, leveraging resources, and funding. There is a need for use of similar tools in the compilation and reporting of HIV and AIDS commodity data to minimize duplication of efforts and enhance efficiency in the delivery of services. In this assessment all countries had a number of their products in the “very high risk” and “high risk” categories. This high risk of stock-out implies that a number of countries are perpetually at risk of stock-out.

The main benefit of the SIAPS WA project is to work with focus countries to ensure that this risk is detected well ahead of time so that appropriate measures including coordination and advocacy are put in place to mitigate any risk of ARV and RTK stock-out. An early warning system regional dashboard for HIV and AIDS related commodities will serve as a platform for sharing information and faster decision making at the country and regional level. The strengthened coordination and partnerships will provide an opportunity for the national program to organize quarterly and annual review meetings to discuss the reports compiled through to the Early Warning System/Dashboard. Data and information from the EWS regional dashboard will be used for quarterly HIV and AIDS review meetings, coordination meetings (national and regional levels), quantification of commodities, supply chain planning, guideline review and development, evidence for Global Fund concept notes, national HIV and AIDS strategic plans, and advocacy with donors, governments, and implementing partners.

ANNEX A. ELEMENTS AND KEY ASPECTS OF THE SUPPLY CHAIN REVIEWED

Elements	Key aspects reviewed	Guidance on key aspects reviewed
1. Stakeholder mapping (data sources: NACPs, pharmaceutical services, CMS)		
Number of Stakeholders and roles	<ul style="list-style-type: none"> List all stakeholders involved in the procurement, management, and use of HIV commodities. 	Include their roles and responsibilities.
Coordination for HIV and AIDS activities	<ul style="list-style-type: none"> List all the working groups or committees on HIV commodity management that the NACP is involved in. Have stakeholders implemented any standardized systems and procedures in medicine management? What challenges are being encountered by the committee or working group in accomplishing its objectives? 	<ul style="list-style-type: none"> For each committee or working group, indicate organizer/chairperson, source of funding, terms of reference (TORs), frequency of meetings, number of meetings held in the past six months, and ask to see a copy of minutes and TORs, if any. List and ask to see a copy of written standardized systems and procedures.
Updated gap analysis	<ul style="list-style-type: none"> Have you done a gap analysis for HIV and AIDS program needs? 	If yes, list at least three critical needs.
Challenges in relation to stakeholders engagement and coordination	<ul style="list-style-type: none"> What are the challenges in accessing HIV and AIDS funding? 	Example: delays in funding disbursement.
2. Selection of ARVs and RTKs (data sources: NACPs, Department of Pharmacy, Drug Regulatory Authority)		
Availability of updated HIV Treatment guidelines	<ul style="list-style-type: none"> Is there an updated version of the HIV and AIDS treatment protocol? When was ART protocol last updated (year)? Does a committee review and revise the treatment protocol? What is the current CD4 cut-off point for starting ART? What are the first-line ART regimens? What are the second-line ART regimens? 	<ul style="list-style-type: none"> Revision may include the whole protocol or a circular. Ask to see the current version of the treatment protocol. List the review committee members and their roles, and ask to see a copy of their TORs.
Registration status of ARVs and RTKs	<ul style="list-style-type: none"> List ARVs and RTKs that are registered and unregistered in the country. On average, how long does it take to register a new product? 	
3. Quantification and procurement of ARVs and RTKs (data sources: NACP, CMS)		
Quantification	<ul style="list-style-type: none"> How and at what levels is quantification conducted? 	Include who, when, methods, software used, and data sources.
<ul style="list-style-type: none"> process coordination challenges of accomplishing 	<ul style="list-style-type: none"> Is there a national quantification committee? When was a national quantification last conducted? 	<ul style="list-style-type: none"> List members and frequency of meetings, and ask to see a copy of their TORs and minutes of the meetings. Ask to see a report of the national quantification.

Elements	Key aspects reviewed	Guidance on key aspects reviewed
quantification	<ul style="list-style-type: none"> How often is the ARV and RTK commodity forecast updated? How are discrepancies in quantification resolved? What challenges have been encountered in the quantification process? 	Limit to the top three most important challenges.
Procurement <ul style="list-style-type: none"> process coordination supplier performance challenges 	<ul style="list-style-type: none"> What government agency is responsible for procurement of ARVs and RTKs? Does a committee oversee the procurement process? Is there a written procurement plan for ARVs and RTKs? On average, how many planned procurements are scheduled per year? How many emergency procurements occurred in the past year? Do you review the ARV and RTK pipeline? In the past year, how many ARV and RTK shipments were complete and received on time? What is the average number of days between arrival at port and port clearance for both registered and unregistered products? Briefly describe the challenges your country encounters in the procurement of ARV and RTK commodities. 	For committee, list members and frequency of meetings, and ask to see a copy of their TORs and minutes of their meeting. If yes, request a copy (check if it includes a budget). Include the lead time for each commodity. If yes, how frequently? When was the last review? List top three.
3. Storage, distribution, and inventory management (data source: CMS facility)		
Storage	<ul style="list-style-type: none"> Are there written standard operating procedures (SOPs) for storage and handling of ARVs and RTKs? Are there cold chain requirements for ARVs and RTKs? 	If yes, request a copy.
Distribution	<ul style="list-style-type: none"> Are there written SOPs for distribution of commodities? Is there a detailed distribution plan? What are the number and distribution of Ministry of Health (MOH) and non-MOH facilities? How many facilities received ARV and RTK orders on time and in full within the last six months? What is the average number of days between ordering and receiving ARVs and RTKs? How often do you receive supplies? 	<ul style="list-style-type: none"> If yes, request a copy. If there is distribution plan, ask if it is adhered to; a detailed distribution plan should include the distribution strategy and partners' responsibilities. MOH facilities may include hospitals, health facilities, pharmacies, and depots or warehouses.

Situational Analysis of Information Systems and Coordination for Managing HIV and AIDS Related Commodities in Five West and Central African Countries

Elements	Key aspects reviewed	Guidance on key aspects reviewed	
Inventory management	<ul style="list-style-type: none"> Do you have written procedures for inventory management? 	<ul style="list-style-type: none"> If yes, request a copy. 	
	<ul style="list-style-type: none"> Does the program conduct an annual physical inventory of all ARVs and RTKs? 	If yes, request a report.	
	<ul style="list-style-type: none"> Are maximum and minimum stock levels established (for each commodity)? Are stock levels for full supply of ARVs and RTKs reviewed periodically? How many months of stock are available for each ARV and RTK commodity at this time? 		
	<ul style="list-style-type: none"> Have stock-outs occurred for any ARV and RTK commodity in the last six months? What proportions of facilities have reported stock-outs in the last six months? What factors contributed to the stock-outs? Are procedures established for placing emergency orders? How many emergency orders for ARVs and RTKs were placed in the last six months? 	If stock-outs occurred, report the average duration (days) of stock-out for each commodity.	
	<hr/>		
	4. Patient data (data source: NACP facility)		
	Prescribing and use data	<ul style="list-style-type: none"> What is the total number of active patients on ART? What is your monthly rate of new patients on ARVs? Provide the number of patients by age and regimen. What is the projected estimate for total patients on ARV for the next 12 months? 	
<hr/>			
5. Information system (data source: NACP health facility)			
Information flow <ul style="list-style-type: none"> coordination challenges 	<ul style="list-style-type: none"> Describe the flow of information to and from the central level. 	Include information about forms used, frequency of reporting, and who is responsible.	
	<ul style="list-style-type: none"> Is the information system computerized? Are clear standards and guidelines available for data collection and reporting procedures? Are instructions available for data collection and reporting procedures? Does a schedule exist for report preparation, data transmission, and feedback reporting? 	<ul style="list-style-type: none"> What levels are automated and manual? See if the tools are harmonized. If yes, list members, roles, and responsibilities. 	
	<ul style="list-style-type: none"> Are feedback reports provided routinely to data providers to inform them of program performance? What proportion of reports is received on 	If yes, request a copy.	

Elements	Key aspects reviewed	Guidance on key aspects reviewed
	time? <ul style="list-style-type: none">• Is a report generated by the system used for management decisions?• Does a committee exist for management of information related to ARV and RTK commodities?	
	<ul style="list-style-type: none">• What are the challenges affecting the use of information for decision making?	

ANNEX B. PHARMACY DEPARTMENT AND CMS QUESTIONNAIRE

Name of Interviewer: _____ Date of Interview: ___/___/20__

Country: _____ Institution: _____

Names, designations, and email addresses of interviewees:

(1) _____

(2) _____

(3) _____

(4) _____

Instructions

This questionnaire is intended for individuals in the pharmacy department and the central medical stores. Where possible, representatives from CMS and pharmacy department should sit in the same meeting to respond to the questionnaire. If not possible, then a separate questionnaire should be completed for each department. This questionnaire should take about 45 minutes to 1 hour to complete.

2. Are you involved with any working groups or committees on HIV commodity management?
(Check applicable response)

(1) Yes

(2) No

If yes, please describe the committee or working group in the table below.

Name of the committee	Functions of the committee	Organizer (e.g., NACP, etc.)	Does the committee have TORs? (Yes or No)	Frequency of meetings (e.g., quarterly)	Number of meetings held in the past 12 months	Meeting minutes seen (Yes or No)	Challenges encountered

NB: Use a separate sheet of paper to include additional committees and or information.

3. Have you done a gap analysis for HIV and AIDS program needs? (*Check applicable response*)

(1) Yes

(2) No

If yes, list the most critical (top 3) needs in the table below.

Identified need (e.g., inadequate funds for procurement of ARVs)	Identified funding gap (e.g., estimated at USD 250,000/annum)

4. What are challenges encountered in accessing HIV and AIDS funding?

Quantification and Procurement of ARVs and RTKs

7. Briefly describe the quantification process (using the following table).

List the office(s) responsible for quantification of ARVs and RTKs (e.g., CMS, department of pharmaceutical services, NACP, etc.).	
Is quantification a coordinated process involving all stakeholders or based on ad hoc requests (ad hoc requests such as Global Fund grant quantifications for specific grants and not a comprehensive national quantification of ARV and RTK needs)? (A comprehensive quantification involves key players in the provision of HIV and AIDS services and considers the needs at a national level for a period of 1–3 years, irrespective of the source of funding, but describes the sources of funding, assumptions used, and funding gap identified.)	
Is a copy of the last quantification report available to confirm whether it is an ad hoc or comprehensive quantification?	
What is the role of health facilities and districts in ARV and RTK quantification?	
What are the sources of data used in quantification of ARVs and RTKs?	
What is the frequency of quantification?	
What software is used in the quantification (of ARVs and RTKs) and at what levels?	
Which ARV and RTK quantification methodology do you use?	

NB: Use a separate table if the process for quantifying ARVs is different from that of RTKs

9. Is a national-level committee or working group responsible for quantification of ARVs and RTKs? *(Check applicable response)*

(1) Yes → How many members? _____

(2) No

If yes, please provide details of the membership in the table below.

Membership (e.g., clinicians, donors, national program managers, etc.)	Organization (e.g., national referral hospital, CDC, USAID, UNAIDS, etc.)	Roles and responsibilities (Coordination, technical support, funding, etc.)

NB: Use a separate sheet of paper to include additional members.

10. Does the quantification committee have TORs? *(Check applicable response)*

(1) Yes → Seen Not Seen? _____

(2) No

11. Is there a schedule for quantification of ARVs and RTKs? *(for example one per year or every three years or every five years)* *(Check applicable response)*

(1) Yes → Seen Not Seen? _____

(2) No

If yes, is the schedule aligned with the budget program approach?

(1) Yes → what is the frequency? _____

(2) No

12. How many quantification-related meetings were held in the last 12 months? _____

13. Date of the last national quantification exercise (month and year) _____

14. In the last year, how often was the ARV commodity forecast updated? _____

16. What discrepancies happen in the quantification of ARVs and RTks?

How are the discrepancies resolved?

17. What challenges have been encountered in quantifying HIV and AIDS commodities? (*List 3*)

18. What government department is responsible for the procurement of ARVs and RTKs?

19. Does a committee oversee the procurement of ARVs and RTKs? (*Check applicable response*)

(1) Yes → How many members ? _____

(2) No

If yes, please provide details of the membership in the table below.

Members (e.g., chief pharmacists, etc.)	Organization	Roles and responsibilities

NB: Use a separate sheet of paper to include additional members.

20. Does the procurement committee have TORs? (*Check applicable response*)

(1) Yes → Seen Not Seen? _____

(2) No

21. How many procurement-related meetings were held in the last 12 months?

Storage, Distribution, and Inventory Management

33. Have there been any specific additional agreements or arrangements to cover the storage and distribution challenges or costs to manage donor-supplied ARVs and RTKs that are being distributed through the national/CMS system? *(Check applicable response)*

- (1) Yes
- (2) No

If yes, what are the arrangements?

34. Do you have written Standard Operating Procedures (SOPs) for storage and distribution of ARVs and RTKs? *(Check applicable response)*

- (1) Yes → Seen Not Seen? _____
- (2) No

35. Are there cold chain requirements for ARVs and RTKs? *(Check applicable response)*

- (1) Yes
- (2) No

36. Do you have ARVs and RTKs distribution plans? *(Check applicable response)*

- (1) Yes → Seen Not Seen? _____
- (2) No

37. A. Using the following table, indicate the number and distribution of government facilities handling ARVs

	Number	Distribution frequency (e.g., quarterly, monthly, etc.)	Number receiving ARV orders in full*	Number receiving ARV orders on time*
Provincial/regional level depots				
Provincial/regional level hospitals				
District level hospitals				
Health center level				
Dispensaries/outreach pharmacies				

*Refers to the last distribution

B. Using the following table, indicate the number and distribution of government facilities handling RTKs

	Number	Distribution frequency (e.g., quarterly, monthly, etc.)	Number receiving ARV orders in full*	Number receiving ARV orders on time*
Provincial/regional level depots				
Provincial/regional level hospitals				
District level hospitals				
Health center level				
Dispensaries/VCT centers				

C. Using the following table, indicate the number and distribution of nongovernment facilities handling ARVs

	Number	Distribution frequency (e.g., quarterly, monthly etc.)	Number receiving ARV orders in full*	Number receiving ARV orders on time*
Provincial/regional/state depots				
Provincial/regional/state hospitals				
District hospitals				
Health facilities				
Pharmacies				

*Refers to the last distribution

D. Using the following table, indicate the number and distribution of nongovernment facilities handling RTKs

	Number	Distribution frequency (e.g., quarterly, monthly etc.)	Number receiving ARV orders in full*	Number receiving ARV orders on time*
Provincial/regional/state depots				
Provincial/regional/state hospitals				
District hospitals				
Health facilities				
Pharmacies				

*Refers to the last distribution

38. Do you have written procedures for inventory management? *(Check applicable response)*

- (1) Yes → Seen Not Seen? _____
 (2) No

39. Is there a policy or plan for management of soon to expire or already expired medicines? *(Check applicable response)*

- (1) Yes → Seen Not Seen? _____
 (2) No

40. Does the NACP or the MOH conduct an annual physical inventory of all ARVs and RTKs? *(Check applicable response)*

- (1) Yes, Date of the last exercise _____
 (2) No

41. Are maximum and minimum stock levels established (for each commodity)? *(Check applicable response)*

- (1) Yes
 (2) No

If yes, what are the set minimum and maximum stock levels for ARVs (months of stock)

Minimum level _____
 Maximum level _____

If yes, what are the set minimum and maximum stock levels for RTKs (months of stock)

Minimum level _____

Maximum level _____

42. Are stock levels for full supply of ARVs and RTKs reviewed periodically? (*Check applicable response*)

(1) Yes

(2) No

If yes, how often? _____

Date of last review (month, year) _____

43. How many ART/ HIV testing sites reported:

A stock-out of ARVs in the past 6 months? _____

A stock-out of RTKs in the past 6 months? _____

44. What is the total number of

ART sites in your country? _____

HIV testing sites in your country? _____

45. What factors contributed to the stock-outs?

46. Are procedures established for placing emergency orders? (*Check applicable response*)

(1) Yes

(2) No

47. How many emergency orders for ARVs and RTKs were placed in the past 6 months?

ARVs: _____ RTKs: _____

Information System

48. Is a management information system established for ARVs and RTKs? (*Check applicable response*)

(1) Yes

(2) No

What are the key data elements of the information collected and compiled by the system?
(*Describe the flow of information*)

49. Is the information system computerized? (*Check applicable response*)c

(1) Yes, what levels are computerized?

(2) No, what levels are paper based?

If computerized, what electronic tools are used?

50. Are report forms standardized (all facilities use the same forms in the same format)? (*Check applicable response*)

(1) Yes → Seen Not Seen? _____

(2) No

51. Are instructions available for data collection and reporting procedures? (*Check applicable response*)

(1) Yes → Seen Not Seen? _____

(2) No

Are feedback reports provided routinely to the units collecting the data? (*Check applicable response*)

(1) Yes → Seen Not Seen? _____

(2) No

Does a schedule exist for report preparation, data transmission, and feedback reporting? (*Check applicable response*)

(1) Yes → Seen Not Seen? _____

(2) No

If yes, what is the schedule for each of the following?

Report preparation _____

Data transmission _____

Feedback reporting _____

52. What percentage of facilities reports information on time? (on or before the dateline) _____

54. Is the report generated by the system used for management decisions? (*Check applicable response*)

- (1) Yes
- (2) No

If yes, who are the key users of data on commodity management?

55. Does a committee exist for management of information related to ARVs and RTKs? (*Check applicable response*)

- (1) Yes → How many members? _____
- (2) No

If yes, please provide details of the membership in the table below.

Members (e.g., monitoring and evaluation officers, clinicians, etc.)	Organization	Roles and responsibilities

NB: Use a separate sheet of paper to include additional members.

56. Does the committee have TORs? (*Check applicable response*)

- (1) Yes → Seen Not Seen? _____
- (2) No

What is the frequency of meetings in a year? _____

57. Date of the last meeting _____

59. What are the challenges affecting the use of information for decision making?

Additional Comments:

2. Have stakeholders implemented any standardized systems and procedures in medicine management (for example, regular technical review meetings, quantification reviews, quarterly reviews of patient numbers, etc.)? *(Check applicable response)*

(1) Yes

(2) No

If yes, please describe below.

3. Are you involved with any working groups or committees in HIV commodities management? *(Check applicable response)*

(1) Yes

(2) No

If yes, please describe in the table below.

Name of the committee	Functions of the committee	Organizer (e.g., NACP, etc.)	Does the committee have TORs? (Yes or No)	Frequency of meetings (e.g., quarterly)	Number of meetings held in the past 12 months	Meeting minutes seen (Yes or No)	Challenges encountered

NB: Use a separate sheet of paper to include additional committees and or information.

5. Have you done a gap analysis for HIV and AIDS program needs? (*Check applicable response*)

(1) Yes

(2) No

If yes, list the most critical (top 3) needs in the table below.

Identified need (e.g., inadequate funds for procurement of ARVs)	Identified funding gap (e.g., estimated at USD 250,000/annum)

6. What are challenges encountered in accessing HIV and AIDS funding?

Selection of ARVs

7. Is an updated version of the HIV and AIDS treatment protocol available? (*Check applicable response*)

(1) Yes → Seen Not Seen? _____

(2) No

If yes, please indicate the date of the most recent revision _____ (Month and year) (The update may be by a guideline or a circular.)

8. Is a national-level committee or working group responsible for reviewing and revising the ART protocol? (*Check applicable response*)

(1) Yes

(2) No

If yes, please provide details of the membership in the table below.

Membership (e.g., clinicians, donors, national program managers, etc.)	Organization (e.g., national referral hospital, CDC, USAID, UNAIDS, etc.)	Roles and responsibilities (Coordination, technical support, funding, etc.)

NB: Use a separate sheet of paper to include additional members.

9. Does the ART protocol revision committee have TORs? (*Check applicable response*)
 (1) Yes → Seen Not Seen? _____
 (2) No

10. What is the frequency of ART protocol review meetings in a year? _____

11. Date of the last meeting _____

12. What is the current CD4 count cut-off point for starting ART? _____

13. List the current HIV and AIDS treatment regimens in the country.

First-line ART regimen (generic names)	Second-line ART regimen (generic names)

Quantification and Procurement

14. Briefly describe the quantification process (using the following table).

List the office(s) responsible for quantification of ARVs and RTKs (e.g., CMS, department of pharmaceutical services, NACP, etc.).	
Is quantification a coordinated process involving all stakeholders or based on ad hoc requests (ad hoc requests such as Global Fund grant quantifications for specific grants and not a comprehensive national quantification of ARV and RTK needs)? (A comprehensive quantification involves key players in the provision of HIV and AIDS services and considers the needs at a national level for a period of 1–3 years, irrespective of the source of funding, but describes the sources of funding, assumptions used, and funding gap identified.)	
Is a copy of the last quantification report available to confirm whether it is an ad hoc or comprehensive quantification?	
What is the role of health facilities and districts in ARV and RTK quantification?	
What are the sources of data used in quantification of ARVs and RTKs?	
What is the frequency of quantification?	
What software is used in the quantification (of ARVs and RTKs) and at what levels?	
Which ARV and RTK quantification methodology do you use?	

NB: Use a separate table if the process for quantifying ARVs is different from that of RTKs

15. Is a national-level committee or working group responsible for quantification of ARVs?
(Check applicable response)
- (1) Yes → How many members? _____
- (2) No

If yes, please provide details of the membership in the table below.

Situational Analysis of Information Systems and Coordination for Managing HIV and AIDS Related Commodities in Five West and Central African Countries

Members (e.g., monitoring and evaluation officers, clinicians, etc.)	Organization	Roles and responsibilities

NB: Use a separate sheet of paper to include additional members.

16. Does the quantification committee have TORs? (*Check applicable response*)

- (1) Yes → Seen Not Seen? _____
 (2) No

17. Is there a schedule for quantification of ARVs and RTKs? (*for example one per year or every three years or every five years*) (*Check applicable response*)

- (1) Yes → Seen Not Seen? _____
 (2) No

If yes, is the schedule aligned with the budget program approach?

- (1) Yes → what is the frequency? _____
 (2) No

18. How many quantification-related meetings were held in the last 12 months? _____

19. Date of the last national quantification exercise _____

20. In the last year, how often were the ARV and RTK commodity forecast updated? _____

21. What discrepancies happen in the quantification of ARVs and RTKs?

How are the discrepancies resolved?

22. What challenges have been encountered in quantifying HIV and HIDS commodities? (*List 3*)

23. Briefly (in a sentence) describe the challenges your country encounters in the procurement of HIV and HIDS commodities.

Storage, Distribution, and Inventory Management

24. Have there been any specific additional agreements or arrangements to cover the storage and distribution challenges or costs to manage donor-supplied ARVs and RTKs that are being distributed through the national/CMS system? (*Check applicable response*)

(1) Yes

(2) No

If yes, what are the arrangements?

25. Do you have ARVs and RTKs distribution plans? (*Check applicable response*)

(1) Yes → Seen Not Seen? _____

(2) No

26. Does the NACP or the MOH conduct an annual physical inventory of all ARVs and RTKs? (*Check applicable response*)

(1) Yes Date of the last exercise _____

(2) No

27. How many ART sites reported:

A stock-out of ARVs in the past 6 months? _____

A stock-out of RTKs in the past 6 months? _____

29. What is the total number:
 ART sites in your country? _____
 HIV testing sites in your country? _____

30. What is the number of stock-outs reported in the past 6 months? _____
 ARVs: _____ RTKs: _____

31. What factors contributed to the stock-outs?

ARV Use

32. Program uptake

Total number of active patients on ART	
Number of adult patients on first-line regimen	
Number of adult patients on second-line regimen	
Number of pediatric patients on first-line regimen	
Number of pediatric patients on second-line regimen	
Monthly number of new patients started on ART	
Number of post exposure prophylaxis cases	
Number of women on prevention of mother-to-child transmission therapy	
Projected estimate for total patients on ARV for the next 12 months (by December 2014)	
Total number of people tested for HIV(year 2013)	
Projected estimate for total clients to be tested for next 12 months (by December 2014)	

Information System

33. Is a management information system established for ARVs and RTKs? *(Check applicable response)*

(1) Yes

What are the key data elements of the information collected and compiled by the system?
(Describe the flow of information)

(2) No

35. Is the information system computerized? (*Check applicable response*)

(1) Yes, what levels are computerized?

(2) No, what levels are paper based?

If computerized, what electronic tools are used?

36. Are report forms standardized (all facilities use the same forms in the same format)? (*Check applicable response*)

(1) Yes → Seen Not Seen? _____

(2) No

37. Are instructions available for data collection and reporting procedures? (*Check applicable response*)

(1) Yes → Seen Not Seen? _____

(2) No

Are feedback reports provided routinely to the units collecting the data? (*Check applicable response*)

(1) Yes

(2) No

38. Does a schedule exist for report preparation, data transmission, and feedback reporting? (*Check applicable response*)

(1) Yes → Seen Not Seen? _____

(2) No

If yes, what is the schedule for each of the following?

Report preparation _____

Data transmission _____

Feedback reporting _____

39. What percentage of facilities report information on time? on or before the deadline) _____

40. Is the report generated by the system used for management decisions? (*Check applicable response*)

(1) Yes

(2) No

If yes, who are the key users of data on commodity management?

41. Does a committee exist for management of information related to ARVs? (*Check applicable response*)

- (1) Yes → How many members? _____
- (2) No

If yes, please provide details of the membership in the table below.

Members (e.g., monitoring and evaluation officers, clinicians, etc.)	Organization	Roles and responsibilities

NB: Use a separate sheet of paper to include additional members.

42. Does the committee have TORs? (*Check applicable response*)

- (1) Yes → Seen Not Seen? _____
- (2) No

43. What is the frequency of meetings in a year? _____

44. Date of the last meeting _____

45. What are the challenges affecting the use of information for decision making?

Additional Comments:

ANNEX D. HEALTH FACILITY QUESTIONNAIRE

Name of Interviewer: _____ **Date of Interview:** ___/___/20__

Country: _____ **Institution:** _____

Names, designations, and email addresses of interviewees:

(1) _____

(2) _____

(3) _____

(4) _____

Instructions

This questionnaire is designed for the clinicians and pharmacists responsible for the ART program at the facility level. Where possible, these interviewees can sit in the same meeting to respond to the questionnaire. This questionnaire should take about 30 to 45 minutes to complete.

Selection of ARVs

1. Is an updated version of the HIV and AIDS treatment protocol available? (*Check applicable response*)

(1) Yes → Seen Not Seen? _____

(Date of the last version of the treatment protocol) ____ month ____ year

(2) No

2. What is the current CD4 cut-off point for starting ART? _____

3. List the current treatment regimens in the country

First-line ART regimen (generic names)	Second-line ART regimen (generic names)

Storage, Distribution, and Inventory Management

4. Do you have written Standard Operating Procedures for storage of ARVs and RTKs? (*Check applicable response*)

- (1) Yes → Seen Not Seen? _____
 (2) No

5. Are there cold chain requirements for ARVs and RTKs? (*Check applicable response*)

- (1) Yes
 (2) No

6. In the past 12 months how many orders containing ARVs and RTKs did you make? ARVs: ____
 RTKs: _____

7. Date the last order was received _____

8. What percentage of the last order was received in full?

- Number of ordered items _____
 Number of items received _____
 Number of items received (completely) as ordered _____

9. Average number of days between ordering and receiving ARVs and RTKs

10. Do you have written procedures for inventory management? (*Check applicable response*)

- (1) Yes → Seen Not Seen? _____
 (2) No

Do you conduct an annual physical inventory of all ARVs and RTKs?

- (1) Yes, Date of the last exercise Month _____ Year _____
 (2) No

11. Are maximum and minimum stock levels established (for each ARV commodity)? (*Check applicable response*)

- (1) Yes
 (2) No

12. For a list of ARVs (tracer or a list of 10 select ARVs) and RTKs, fill in the following table:

Product name (Generic name)	Minimum stock level (Months)	Maximum stock level (Months)	Months of stock available	Average monthly consumption	Reported stock-out in the past 6 months? (Yes or No)

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Product name (Generic name)	Minimum stock level (Months)	Maximum stock level (Months)	Months of stock available	Average monthly consumption	Reported stock-out in the past 6 months? (Yes or No)

13. Are procedures established for placing emergency orders? *(Check applicable response)*

- (1) Yes
- (2) No

14. How many emergency orders for:

ARVs were placed in the past 6 months? _____

RTKs were placed in the past 6 months? _____

15. How many scheduled orders were accomplished? (this is a proportion, e.g., 10/10) _____

ARV Use

16. Program uptake

Total number of active patients on ART	
Number of adult patients on first-line regimen	
Number of adult patients on second-line regimen	
Number of pediatric patients on first-line regimen	
Number of pediatric patients on second-line regimen	
Number of new patients started on ART monthly	
Number of post exposure prophylaxis cases	
Number of women on prevention of mother-to-child transmission therapy	
Projected estimate for total patients on ARV for the next 12 months (by December 2014)	
Total number of people tested for HIV(year 2013)	
Projected estimate for total clients to be tested for next 12 months (by December 2014)	

Information System

17. Is an ARV and RTK management information system established? (*Check applicable response*)

- (1) Yes
- (2) No

18. Are monthly or quarterly ART reports available? (*Check applicable response*)

- (1) Yes → Seen Not Seen? _____
- (2) No

19. Are instructions available for data collection and reporting procedures (*Check applicable response*)

- (1) Yes → Seen Not Seen? _____
- (2) No

20. Do you routinely receive feedback reports? (*Check applicable response*)

- (1) Yes
- (2) No

21. Does a schedule exist for report preparation, data transmission, and feedback reporting? (*Check applicable response*)

- (1) Yes → Seen Not Seen? _____
- (2) No

If yes, what is the schedule for each of the following?

Report preparation _____

Data transmission _____

Feedback reporting _____

Additional Comments:

ANNEX E. PROVINCIAL/REGIONAL/DISTRICT-LEVEL QUESTIONNAIRE

Name of Interviewer: _____ Date of Interview: ___/___/20__

Country: _____ Institution: _____

Names, designations, and email addresses of interviewees:

(1) _____

(2) _____

(3) _____

(4) _____

Instructions

This questionnaire is intended for the National Aids Control Program at the provincial/regional/district level (depending on the country context). This questionnaire should take about 15 to 30 minutes to complete.

Information System

1. Is a management information system established for ARVs and RTKs? (*Check applicable response*)

(1) Yes

What are the key data elements of the information collected and compiled by the system?
(*Describe the flow of information*)

(2) No

2. Is the information system computerized? (*Check applicable response*)

(1) Yes, what levels are computerized?

(2) No, what levels are paper based?

If computerized, what electronic tools are used?

3. Are report forms standardized (all facilities use the same forms in the same format)? (*Check applicable response*)
 (1) Yes → Seen Not Seen? _____
 (2) No
4. Are instructions available for data collection and reporting procedures? (*Check applicable response*)
 (1) Yes → Seen Not Seen? _____
 (2) No
5. Are feedback reports provided routinely to the units collecting the data? (*Check applicable response*)
 (1) Yes
 (2) No
6. Does a schedule exist for report preparation, data transmission, and feedback reporting? (*Check applicable response*)
 (1) Yes → Seen Not Seen? _____
 (2) No

If yes, what is the schedule for each of the following?

Report preparation _____

Data transmission _____

Feedback reporting _____

7. What percentage of facilities report information on time? (on or before the deadline) _____
8. Is the report generated by the system used for management decisions? (*Check applicable response*)
 (1) Yes
 (2) No

If yes, who are the key users of data on commodity management?

9. What are the challenges affecting the use of information for decision making?

ANNEX F. PEOPLE INTERVIEWED

Country	Institution	Names, designations, and email addresses of interviewees
Burkina Faso	Direction Generale de la Pharmacie, du medicament et des Laboratoire (DGPML)	Dr Kadidja DJIERRO/DAGBA, Director of securing pharmaceutical supplies, djierrok@yahoo.fr
Burkina Faso	DGPML	Dr Sawadogo Koncobo Monique, coordination officer, koncobo@yahoo.fr
Burkina Faso	DGPML	Dr Eby Cheikh Khou, Pharmacist, UNICEF technical assistant, eouldcheikh@unicef.org
Burkina Faso	Centrale d'achat des medicaments essentiels et generiques (CAMEG) - CMS	Dr Jean Chrysostome Kadeba
Burkina Faso	Direction regionale sante du centre	Dr Sanfo Lassana, Pharmacist, lissanasanfo@yahoo.fr
Burkina Faso	District sanitaire de Bogodogo	Dr Nebie Germain, pharmacist, kkyouve@yahoo.fr
Burkina Faso	Hopital de district de Bogodogo	Dr Koumare Alice, pharmacist, alice_kiba@yahoo.fr
Burkina Faso	Hopital de district de Bogodogo	Gorgha Homado PEP, gorghamado@yahoo.dr, pharmacy assistant,
Burkina Faso	CPFM/SSP	Yacouba DOMO, PR's PSM, domyak@yahoo.fr
Burkina Faso	PSSLS-IST	Dr Guire Abdoulaye, NACP Coordinator, djilaye@yahoo.fr
Burkina Faso	PSSLS-IST	Coulibaly Abdoulaye; M&E officer, banasira2006@yahoo.fr
Cameroon	CENAME	Dr Samba Frédéric ; Directeur d'exploitation
Cameroon	CNLS (Commission Nationale de Lutte contre le Sida)	Mr Amanye : PSM (responsable du suivi des intrants)
Cameroon	CNLS	Mr Salomon Amadou : Monitoring and evaluation advisor (cadre a l'unité suivi - évaluation)
Cameroon	Groupe technique regional du Centre	Anoubissi Jean de Dieu; anoubez@yahoo.fr, Monitrong and evakuation officer at Regional technical working group of the center region (Chef Unité Suivi Evaluation GTR/CNLS centre)
Cameroon	Hôpital Central de Yaoundé	Owona Jean Jacques; owona.jeanjacques@yahoo.fr
Guinea	SE/CNLS/PCG	Dr Abbas Diakite, SE/CNLS, abbasdiakite@yahoo.fr
Niger	DPHL/MT	Dr Messan Halimatou Allassane, Director, docmeshali@yahoo.fr BP 623 Niamey
Niger	ONPPC (CMS)/UGS	Dr Zaratou Ankourao Hamady, Chief of UGS, BP 623 Niamey
Niger	CISLS (NACC)	Dr Zeinabou Alhousseini, Coordinator,

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Country	Institution	Names, designations, and email addresses of interviewees
		zeinamaiga@yahoo.fr
Niger	CISLS (NACC)	Dr Abdoulaye Adamou, PSM, cisls.appro.niger@gmail.com
Niger	ULSS	Dr Idrissa Soumana, Coordinator, soumanaidrissa33@yahoo.fr
Niger	ULSS	Dr Seybou Oumarou, Chief of care and treatment Unit, somardoc8@yahoo.fr
Niger	ULSS	Issa Kanta, Monitoring and evaluation officer, issakanta@gmail.com
Niger	Direction Regionale de la Sante Publique de Niamey (DRSP)	Dr Abdourhamane Salamou, Regional Director of Health
Niger	CHR Poudriere	Dr Moutari Aichatou, Pharmacist, aichamah@yahoo.fr
Niger	CHR Poudriere	Dr Hawa Yacouba, Pharmacist, hawayac@yahoo.fr
Niger	CHR Poudriere	Ms Mohamed Aminatou, M&E officer, idrissachipkaoaminatou@yahoo.fr
Niger	Hopital National	Dr Alhousseini Maiga Daouda, Assistant Professor, Chief of pharmacy service, amd145@yahoo.fr
Niger	Hopital National	Ms Hadiza Abbade, Nurse, ARV drugs dispenser, hadiza70@yahoo.fr
Togo	CAMEG	Dr Hervé D'Ameida, Director of health Programs and Projects, dalmeidaherve@yahoo.fr
Togo	DPLET (Direction de la pharmacie, des laboratoires et equipements techniques)	Dr Mauvvena Folly Kliko, Chief of homologation service, kliklofolly@yahoo.fr
Togo	DPLET	Dr Abalo Tchessy Atany Nyansa, Director of DPLET, bnyansa@yahoo.fr
Togo	CNLS	Prof. Vincent P. Pitche , CNLS Coordinator
Togo	PNLS ,	Dr Singo Assetina, NACP Coordinator
Togo	PNLS	Dr Agbepeavi Assimadzi, Pharmacist
Togo	PNLS	Francis Deh, Pharmacist assistant
Togo	Direction Regionale Maritime	Davon Comlavi, HIV Focal Point, Regional Health office, c2hdavon2001@yahoo.fr
Togo	Centre Hospitalier Prefectoral (CHP) d'Assahouan	Mawulolo Ayewadan, ARV drugs dispenser, eloloa@yahoo.fr
Togo	CHP d'Assahouan	Laboratory technician
Togo	ONG AMC	Kwami Eugene Novon, Director, kenovs2@yahoo.fr, amc_lome@yahoo.fr
Togo	ONG AMC	Abra Espoir Tsekple, ARV dispenser, sobane2000@yahoo.fr
Togo	ONG AMC	Tété Kossi Kodah, medical assistant, prescriber, paskoskod13@gmail.com
Togo	CHU Sylanius Olympio	Dossou Zinssou, dispenser,

Annex F. People Interviewed

Country	Institution	Names, designations, and email addresses of interviewees
		dossouzinsou@gmail.com
Togo	CHU Sylanius Olympio	Patassi Akouda, Prescriber, apatassi@gmail.com, BP 57 CHU SO

ANNEX G. WORKING GROUPS (WG) AND COMMITTEES IN HIV COMMODITY MANAGEMENT

Country	Name : Committee or WG ²⁶	Functions	Organizer	Frequency of meetings	# of meetings in the past 12 months ²⁷	Challenges
Burkina Faso	Commission nationale de coordination des approvisionnements des intrants des programmes de santé prioritaires	<ul style="list-style-type: none"> • Coordinate procurement and supply planning • Approve annual supply plans • Resources mobilization • Ensure effective functioning of commodity management information system • Ensure rational medicines use • Commodity security • Support development of tools to monitor adverse effects • Coordinate disease specific technical committees 	DGPML	Semester	4	None
	Le comité technique de coordination de la gestion des ARV, des antituberculeux (MoH decree was signed in December 2013)	<ul style="list-style-type: none"> • Forecasting and supply planning • Assess collected data • Product availability 		Quarterly		
Cameroon	PSM group (informal)	<ul style="list-style-type: none"> • Forecasting and supply planning, validation of procurement plan, • Monitoring distribution and consumption 	CNLS	N/A	7	<ul style="list-style-type: none"> • Poor data quality • Lack of funding

²⁶ All committees have TORs except for the PSM group in Cameroon

²⁷ The minutes for the said meetings were available

Annex F. People Interviewed

Country	Name : Committee or WG ²⁶	Functions	Organizer	Frequency of meetings	# of meetings in the past 12 months ²⁷	Challenges
Guinea	Comité technique d'approvisionnement	<ul style="list-style-type: none"> Monitoring stock status Coordinate procurement and supply planning 	SE/CNLS	Monthly	8	<ul style="list-style-type: none"> Logistics and finances
	Comité de quantification	<ul style="list-style-type: none"> Quantification 		Annual	1	
	Comité technique médicale (informal)	<ul style="list-style-type: none"> Monitoring adherence to ART protocols 	PNPCSP	Monthly	4	
Niger	Comité technique d'approvisionnement en intrants VIH	<ul style="list-style-type: none"> Validate needs for ARVs and other related commodities; Analyze and validate data (patients and commodities); Coordinate different sources of funding linked to procurement of ARVs and other HIV commodities; Propose solutions to fix issues linked to management of HIV products. 	DPHL/MT	monthly	6	<ul style="list-style-type: none"> Poor meeting attendance Lack of consumption data
Togo	Cellule de coordination et de gestion des médicaments et intrants médicaux dans le domaine du VIH/SIDA	<ul style="list-style-type: none"> Improve coordination, collaboration and communication among stakeholders involved in HIV and AIDS commodities supply chain Quantification and supply planning of HIV and AIDS commodities. 	NACP	Monthly	11	<ul style="list-style-type: none"> Poor meetings attendance (73% donors and 9% Pharmacy department).

ANNEX H. LIST OF ARVS AND RTK IN THE PUBLIC SECTOR

Burkina Faso	
Abacavir	Lamivudine + Zidovudine
Abacavir + lamivudine	Lamivudine + Stavudine
Abacavir sulfate + lamivudine + zidovudine	Stavudine
Didanosine	Zidovudine
Emtricitabine + tenofovir disoproxil fumarate	Efavirenz
Lamivudine	Efavirenz + Emtricitabine + Ténofovir disoproxil
Lamivudine + tenofovir	Névirapine
Lamivudine + nevirapine + stavudine	Atazanavir
Lamivudine + névirapine + zidovudine	Darunavir
	Lopinavir + Ritonavir
Cameroon	
Zidovudine/Lamivudine/Nevirapine	Atazanavir 300mg /Ritonavir 100 mg
Zidovudine /Lamivudine	Abacavir
Tenofovir /Lamivudine / Efavirenz	Didanosine
Tenofovir /Lamivudine	Abacavir /Lamivudine
Nevirapine 200 mg	Determine
Efavirenz 600 mg	Oraquick
Lopinavir /Ritonavir	immunocomb
Guinea	
Tenofovir + 300 lamivudine + 150 Efavirenz 600	Didanosine 400 mg
Tenofovir + 300 Lamivudine 150	Didanosine 250 mg
Zidovudine + 300 Lamivudine+ 150 nevirapine 200	Lamivudine 10 mg/ml
Zidovudine + 300 lamivudine150	Stavudine 10mg/FI 240ml
Stavudine + 300 lamivudine+ 150 nevirapine 200	Test rapide de dépistage VIH 1/2 Serum/Plasma
Zidovudine + 60 lamivudine30	Test rapide de confirmation VIH 1/2 Serum/Plasma
Efavirenz 600 mg	Test rapide de dépistage VIH/Syphilis DUO
Efavirenz 30 mg	Serum/Plasma
Nevirapine 10 mg/ml	Test rapide VIH discriminant 1/2 Serum/Plasma
Abacavir 300 mg	
Niger	
Zidovudine 300 mg + Lamivudine 150 + Nevirapine 200 mg comp	Efavirenz 600 mg comp
Zidovudine 300 mg + Lamivudine 150	Lopinavir 200+ritonavir 50mg comp
Ténofovir 300 mg comp + lamivudine 300 mg	AZT+3TC+NVP - 60/30/50 mg - Cp - Bte 60 baby
Abacavir 300 mg comp	AZT+3TC-60mg/30mg-cp-Bte 60 baby
Didanosine 250 mg comp	Efavirenz solution buvable 30mg/ml
Didanosine EC 400 mg gel	TDR HIV 1 & 2 P/100
Togo	
Abacavir ABC 300 mg Comp B/60	Tenofovir TDF 300 mg /Lamivudine 3TC 300 mg
Abacavir ABC 60 mg/Lamivudine 30mg Comp B/60	Comp B/30
Abacavir ABC 600 mg/Lamivudine 3TC 300mg Comp B/30	Tenofovir TDF 300 mg /Lamivudine 3TC 300 mg/ Efavirenz EFV 600 mg Comp B/30
Atazanavir 300mg /Ritonavir 100 mg comp B/30	Zidovudine AZT 300mg /Lamivudine 3TC 150 mg B/60
Efavirenz EFV 200 mg Comp B/90	Zidovudine AZT 60 mg /Lamivudine 3TC 30 mg B/60
Efavirenz EFV 600 mg/Caps B/30	Zidovudine AZT 300 mg /Lamivudine 3TC 150 mg/ Nevirapine NVP 200 mg B/60
Lopinavir LPV 200 mg / Ritonavir RTV 50mg Comp B/120	Zidovudine 60 /lamivudine 30 /nevirapine 50 Comp B/60
Lopinavir 80 mg/Ritonavir 20 Mg Sol Buv 300 ml	Determine HIV Kit/100 tests
Nevirapine NVP 200 mg/Comp B/60	First Response Kit/30 Tests
Nevirapine NVP 10 mg/MI Susp Buv Flacon 100 ml	Immunocomb II HIV 1/2 Combfirm Kit/18 tests
Nevirapine NVP 50 mg/5 ml Sirop fl/240 ml	

ANNEX I. HIV AND AIDS TREATMENT PROTOCOL REVIEW COMMITTEE MEMBERSHIP

	Presence of terms of reference	Membership
Burkina Faso	Yes, not seen	DGPML, SP/CNLS-IST, PSSLS-IST, PNL P, PNLT, PADS, représentant de l'Ordre des pharmaciens, représentant de l'Ordre des médecins, Directeur général de la santé, Le directeur de sécurisation des approvisionnements pharmaceutiques, Un chargé des approvisionnements des programmes de santé prioritaires, DGESS, DAF, DSITS, DL, DMPT, DRLP, DLM, DSF, DN, DPV, CAMEG, PAMAC, Un conseiller technique, La directrice des marchés publics, CHU ou CHN, Un Directeur régional de la santé, UNFPA, WHO, Bioforce Institute, UNAIDS, JSI/DELIVER , USAID, LFA/Global Fund, Le Directeur exécutif du RAME, Le Président de la CORAB
Cameroon	Yes, not seen	Directorate of diseases control ,Directorate of operational research in health and technology, Pediatricians, Infectious disease specialists, Pharmacists, NACC, WHO, UNAIDS
Guinea	Yes, not seen	Comité technique médicale, PNPCSP, SOLTHIS, MSF/B, DREAM
Niger²⁸	No	Physicians, SOLTHIS, ESTHER, WHO,UNAIDS, UNICEF
Togo	Yes, not seen	Not provided

²⁸ A meeting for the next revision will be held on March 17-21, 2014

ANNEX J. FIRST-LINE ART REGIMENS

ART	Burkina Faso	Cameroon	Guinea	Niger	Togo
ABC+3TC+EFV			Y		Y
ABC+3TC+NVP					Y
AZT+ 3TC+IDV/r	Y				
AZT+3TC+ABC			Y	Y	Y
AZT+3TC+EFV	Y	Y	Y	Y	Y
AZT+3TC+IDV	Y		Y		
AZT+3TC+LPV/r	Y		Y		
AZT+3TC+NVP	Y	Y	Y	Y	Y
AZT+3TC+NVP Junior			Y		
D4T+3TC+EFV	Y				
D4T+3TC+IDV/r	Y				
D4T+3TC+LPV/r	Y				
D4T+3TC+NVP	Y				
D4T30+3TC+IDV	Y				
TDF/3TC/EFV		Y			
TDF+ 3TC+ EFV	Y		Y	Y	Y
TDF+ FTC+ EFV*			Y		
TDF+3TC+LPV/r	Y		Y		
TDF+3TC+NVP	Y	Y			Y
TDF+FTC+EFV	Y	Y	Y	Y	
TDF+FTC+LPV/r	Y				
TDF+FTC+NVP	Y	Y			
Total	16	6	11	5	7

ANNEX K. SECOND-LINE ART REGIMENS

ART	Burkina Faso	Cameroon	Guinea	Niger	Togo
3TC+DDI+EFV	Y				
3TC+DDI+IDV	Y				
3TC+DDI+LPV/r	Y				
3TC+DDI+NVP	Y				
3TC+EFV+LPV/r	Y				
ABC+3TC+ ATV/r					Y
ABC+3TC+DRV/r	Y				
ABC+3TC+EFV	Y				
ABC+3TC+LPV/r	Y		Y		Y
ABC+3TC+NVP	Y				
ABC+DDI+DRV/r	Y				
ABC+DDI+EFV	Y				
ABC+DDI+LPV/r	Y			Y	
ABC+DDI+NVP	Y				
AZT +DDI+ LPV/r	Y		Y		
AZT+3TC+ATV/r		Y		Y	Y
AZT+3TC+DDI	Y				
AZT+3TC+LPV/r		Y		Y	Y
AZT+3TC+TDF	Y				
AZT+ABC+3TC	Y				
AZT+DDI+IDV	Y				
AZT+DDI+IDV/r	Y				
AZT+TDF+3TC+LPV/r	Y				
D4T+DDI+IDV/r	Y				
EFV+DDI+LPV/r	Y				
TDF+3TC+ ATV/r		Y		Y	Y
TDF+3TC+ LPV/r		Y	Y	Y	Y
TDF+ABC+3TC	Y				
TDF+ABC+DRV/r	Y				
TDF+ABC+EFV	Y				
TDF+ABC+LPV/r	Y		Y		
TDF+DDI+LPV/r	Y				
TDF+EFV+LPV/r	Y				
TDF+FTC+ATV-r				Y	
TDF+FTC+DRV/r	Y				
TDF+FTC+LPV/r			Y	Y	
Total	29	4	5	7	6

ANNEX L. QUANTIFICATION PROCESS

	Burkina Faso	Cameroon	Guinea	Niger	Togo
Offices responsible for quantification	DGPML, PSSLS/IST, SP/CNLS, DSF, CAMEG	CNLS, DPML, DLM, CENAME	SE/CNLS, PCG, PNPCSP, DNPL (MSHP), UNAIDS, MSF/B, SOLTHIS, GIZ, UNICEF, DREAM, REGAP+, REFIG	DPHL/UGS; ULSS, CISLS	NACP
Is quantification a coordinated or based on ad hoc requests²⁹	Coordinated process	Both	Both	Coordinated process	Both
Role of health facilities and districts in quantification	Dispensers and prescribers are called as resources persons for quantification meeting	providing data for quantification	providing needs estimates, consumption and morbidity data	Providing consumption and morbidity data	Providing data to the quantification committee
Data sources for quantification	PMTCT, ART and VCT sites	Epidemiological and national strategic plan data.	PMTCT, ART and VCT sites	ULSS (ART data), UGS (commodities data)	Morbidity data from WHO, EPP spectrum, NACP
Software used	Excel	CHAI Tool for ARV, Excel for RTKs	SOLTHIS	SOLTHIS	CHAI Tool (Excel based tool)
Quantification method	Morbidity	Morbidity and consumption	Morbidity	Morbidity	Morbidity and consumption
Is the quantification schedule aligned with the budget?	Yes	Yes(not seen)	Yes	Yes(not seen)	Yes(not seen)
# of quantification related meetings in the past 12 months	4	6	1	8	11

²⁹ Except for Niger Reports for the most recent available and seen in all countries except Niger

Annex L. Quantification Process

	Burkina Faso	Cameroon	Guinea	Niger	Togo
Date of last quantification ³⁰	August 13	November 13	January 12	October 13	August 12
In the last year, how often was the ARV commodity forecast updated?	some adjustments have been made since last quantification	Several times	once	once	quarterly
What discrepancies happen in the quantification of ARVs and RTks?	Overestimate of pediatric ARVs forecasts	Funds not sufficient to cover all needs	<ul style="list-style-type: none"> • Morbidity data not available • Limited financial and logistics resources 	<ul style="list-style-type: none"> • ART protocol changes, • lack of quality data and human resources 	<ul style="list-style-type: none"> • Forecasts are under/or overestimated, • Government budget not fully released especially in 2013. • Delayed GF disbursement
How are the discrepancies resolved?	Exchange commodities with other countries, but not easy to do.		<ul style="list-style-type: none"> • Advocating for financial resources from the government and donors 	data manipulations	<ul style="list-style-type: none"> • The HIV and HIDS commodities management committee is monitoring stock status and consumption. • The CNLS coordinator is following up with the government and Global Fund to disburse commodities budget
What challenges have been encountered in quantifying HIV and AIDS commodities?	Data quality especially consumption data	Data quality, lack of funding lack of quantification coordination, information system is not well developed	<ul style="list-style-type: none"> • Getting morbidity data. • Limited financial and logistics resources 	Data quality	<ul style="list-style-type: none"> • Data quality, • Securing funding.

³⁰ Quantifications are conducted annually

ANNEX M. PROCUREMENT PROCESS

	Burkina Faso	Cameroon	Guinea	Niger	Togo
What government department is responsible for the procurement of ARVs and RTKs	CAMEG	MoH	SE/CNLS	ONPPC using Government funding	CAMEG
#Procurement related meeting in the past 12 months	Not provided	Not provided	1	Not provided	4
Date of last meeting	Not provided	Not provided	March 2013	Not provided	Not provided
Is there a procurement plan that includes a budget/ financial plan?³¹	Not provided	Yes	Yes	Yes	Yes
# procurements scheduled/ year	Not provided	Not provided	1	1	2 Global Fund, 2 Government
# planned procurements occurred in the past year	not provided	not provided	1	1	2 Global Fund, 1 Government
# emergency procurements in the past year	Not provided	Not provided	None	1	1 Government
Pipeline review & frequency/date of last review	Not provided	Not provided	No	2/ year. Last reviewed June 2013(report not seen)	2/ year. Last reviewed June 2013(report not seen)
# of shipments complete and on	Not provided	Not provided	84.6%Complete 7.7% on time		100% complete but not on time

³¹ Procurement plans were not seen by the data collectors

Annex M. Procurement Process

	Burkina Faso	Cameroon	Guinea	Niger	Togo
time					
# of days between arrival and port clearance for registered products	Not provided	2	8	1	2
# of days between arrival and port clearance for un registered products	Not provided	Not provided	Not provided	1	2
Procurement lead time	Not Provided	Not Provided	6 months GF (VPP), PCG	Not Provided	IDA Foundation (9 -17 weeks) PROLABO (4 -6 weeks)
Procurement challenges	<ul style="list-style-type: none"> • No control of VPP deliveries. • Delays in preparing procurement plans at the national level. 	<ul style="list-style-type: none"> • VPP mechanism is out of our control • Difficulties in mobilizing financial resources 	<ul style="list-style-type: none"> • Lack of financial resources • Disbursement delays. • Delayed deliveries of lab commodities • Limited logistics resources 	<ul style="list-style-type: none"> • Difficulties in getting suppliers for small quantities 	<ul style="list-style-type: none"> • Specifications of lab commodities. • Weak distribution of cold chain products Disbursement delays

ANNEX N. COMMITTEES MEMBERSHIPS

Committee	Burkina Faso	Cameroon	Guinea	Niger	Togo
Quantification ³²	DGPML(2) DAF PSSLS-IST SP/CNLS-IST CAMEG PNT MoH/DSF MoH/Hospital Global Fund's PR PAMAC UNICEF UNAIDS	CNLS DPML CENAME DLM Partners	SE/CNLS PNPCSP DNPL PCG INSP MSF/B DREAM SOLTHIS ONUSIDA REGAP+ REFIG	UGS(2) CISLS SOLTHIS	PNLS (5) CAMEG(4) DPLET CNR/VIH DSF UGP/MS CHU Tokoin EVT CHR Tsévié AED Kara CHAI ESTHER PSI UNICEF UNAIDS UNFPA Red Cross
Procurement ³³	None	None	SE/CNLS PNPCSP DNPL PCG INSP MSF/B DREAM SOLTHIS ONUSIDA REGAP+ REFIG	None	Not Provided
Information systems ³⁴	DGPML(2) DAF PSSLS-IST SP/CNLS-IST CAMEG PNT MoH/DSF MoH/Hospital Global Fund's PR PAMAC UNICEF UNAIDS	None	SE/CNLS PNPCSP DNPL PCG INSP MSF/B DREAM SOLTHIS ONUSIDA REGAP+ REFIG	DPHL(2) CISLS (2) (NACC) UGS ULSS(2) NRL DSME Ministry of defense ONPPC PNLT patients UNICEF WHO SOLTHIS CCM	PNLS (5) CAMEG(4) DPLET CNR/VIH DSF UGP/MS CHU Tokoin EVT CHR Tsévié AED Kara CHAI ESTHER PSI UNICEF UNAIDS UNFPA Red Cross

³² Burkina Faso, Guinea and Togo have TORs, other countries do not.

³³ The presence of procurement committee TORs (Guinea and Togo) was not confirmed by the data collector

³⁴ All TORs were seen

ANNEX O. STORAGE

	Burkina Faso	Cameroon	Guinea	Niger	Togo
Agreements or arrangements to cover the storage and distribution challenges or costs to manage donor supplied ARVs & RTKs	Management fees(8.5%) paid to CAMEG	There is a MoU between CNLS and CENAME. CNLS pays for management fees to CENAME	Rehabilitation of CMS regional depots with appropriate equipment to improve storage capacity. Procurement of trucks to increase distribution capacity.	There is an agreement between CISLS and ONPPC to pay for Storage and distribution fees. ONPPC has agreements with other donors and partners.	5% paid to CAMEG as management fees
Written SOPs for Storage	Yes Not seen	Yes seen	Yes Not seen	Yes Not seen	Yes Not seen
Presence of distribution plans	Yes Not seen	Yes Not seen	Yes seen	Yes Not seen	Yes Not seen

ANNEX P. INVENTORY MANAGEMENT PROCEDURES

	Burkina Faso	Cameroon	Guinea	Niger	Togo
Written SOPs for Inventory Management	Yes Not seen	Yes Not seen	Yes Not seen	No	Yes Not seen
Is there a policy/ plan for management of soon to expire or already expired medicines?	Yes Not seen	Yes Not seen	Yes Not seen	Not provided	Yes Not seen
Does the NACP or the MOH conduct an annual physical inventory of all ARVs & RTKs?/ date	Inventory is conducted by CAMEG	Inventory is conducted by CENAME	Yes (December 13)	Yes (December 13)	Yes (December 13)
Minimum /Maximum stock level of ARVs	Not provided	6 months/ 12 months	3 months/ 15 Months	6 months/ 18 Months	6 months 18 Months
Minimum /Maximum stock level of RTKs	Not provided	6 months/ 12 months	3 months/ 10 months	6 months/ 18 Months	None
How often are stock levels for full supply of ARVs and RTKs reviewed?	Not provided	Not provided	Monthly Last reviewed January 14	Quarterly last reviewed December 13	Monthly last reviewed February 14
# of ART sites reporting a stock-out of ARVs in the past 6 months	Few sites experienced stock-out of TDF/FTC.	Most sites	None	None	24/78
# of ART sites reporting a stock-out of RTKs in the past 6 months?	None	A few sites	none	None	All testing sites
What factors contributed to the stock-outs	Late deliveries from VPP	Lack of security stock and funding	N/A	N/A ³⁵	Delays in signing for GF grants.
Are procedures established for placing emergency orders?	No data	Yes	Yes	No	No
# of emergency orders for ARVs placed in the past 6 months?	No data	2	None	1	1
# of emergency orders for RTKs placed in the past 6 months?	No data	1	None	0	1

³⁵ Not easy to identify stock-outs, the LMIS forms do not capture this information

ANNEX Q. STORAGE AND INVENTORY MANAGEMENT

	Burkina Faso	Cameroon	Niger		Togo		
	Hopital du district de Bogodogo	Hôpital Central de Yaoundé	(CHR Pourdriere)	Hopital national	CHP d'Assahouan	ONG AMC	CHU Sylanus Olympio
Do you have written SOPs for storage of ARVs and RTKs?	No	Yes not seen	No	No	No	Yes seen	Yes seen
Do you have written procedures for inventory management	No	Yes, not seen	No	Yes not seen	No	Yes seen	Yes seen
In the past 12 months how many orders containing ARVs/RTKs did you make?	4 ARVs 4 RTKs	10 ARVs 10 RTKs	4 ARVs 4 RTKs	4 ARVs 4 RTKs	12 ARVs 3 RTKs	12 ARVs 1 RTKs	12 ARVs RTKs (not provided)
Date the last order was received	Jan 09,02014	Feb 19,2014	Dec 24, 2013	Dec 19,2013	Feb 2, 2014	Jan 01, 2014	Jan 08, 2014
# of ordered items	10 ARVs; 3 RTKs	6	11	13	6 ARVs, 2 RTKs	15 ARVs, 2 RTKs	15 ARVs
# of items received	10 ARVs; 3 RTKs	3	11	13	6 ARVs, 2 RTKs	15 ARVs, 2 RTKs	15 ARVs
# of items received (completely) as ordered	10 ARVs; 0 RTKs	3	11	13	6 ARVs, 0 RTKs	15 ARVs 0 RTKs	15 ARVs

Situational Analysis of Information Systems and Coordination for Managing HIV and AIDS Related Commodities in Five West and Central African Countries

	Burkina Faso	Cameroon	Niger		Togo		
	Hopital du district de Bogodogo	Hôpital Central de Yaoundé	(CHR Poudriere)	Hopital national	CHP d'Assahouan	ONG AMC	CHU Syllanius Olympio
Average # of days between ordering and receiving products	less than one week	1	less than one week	less than one week	ARV 2 weeks, RTKs have long periods of stock-outs, it is hard to estimate		
Do you conduct an annual physical inventory? (date)	Yes (December 13)	Yes (February 14)	Yes (December 13)	Yes (December 13)	Yes (December 13)	Yes(December 13)	Yes (December 13)
Are maximum and minimum stock levels established?	Yes	Yes	No	No	Yes	Yes	Yes
# of emergency orders for ARVs/RTKs placed in the past 6 month	0	4ARVs 4 RTKs	0	0	0	0	6 ARVs
Number of scheduled orders accomplished	4/4 ARVs, 4/4 RTKs	6/10	4/4	4/4	12/12 ARV 3/4 RTK	12/12 ARV 1/4 RTK	12/12ARV

ANNEX R. INFORMATION SYSTEMS MANAGEMENT AT THE FACILITY LEVEL

	Burkina Faso	Cameroon	Niger		Togo		
	Hôpital du district de Bogodogo	Hôpital Central de Yaoundé	CHR Pourdriere	Hopital national	CHP d'Assahouan	ONG AMC	CHU Syllanius Olympio
Is an ARV and RTK management information system established?	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Are monthly or quarterly ART reports available	Yes, seen	Yes, seen	Yes, seen	Yes, seen	Yes, seen	Yes, seen	Yes, seen
Are instructions available for data collection and reporting procedures	Yes not seen	No	Yes not seen	Yes not seen	Yes not seen	Yes, seen	Yes, seen
Do you routinely receive feedback reports?	No	No	No	No	No	No	No
Does a schedule exist for report preparation and data transmission?	Yes not seen	No	Yes not seen	Yes not seen	Yes not seen	Yes, seen	Yes, seen
what is the schedule for report preparation	not clear for the team		14th of the reporting period	It's not defined	25th of the month		
what is the schedule for Data transmission	15th of following the quarter		20th of the reporting period	15th of the reporting period	5th of the following month		
Additional Comments	LMIS forms are not standardized		<ul style="list-style-type: none"> Delays in data transmission from different hospital units to the M&E unit leading to delays in transmitting the data to the regional health Bureau (DRSP). Poor data quality 		<ul style="list-style-type: none"> Dispensers are not trained on LMIS. Sites have to pick RTKs from the Central Medical store while, ARVs are supplied by the regional depots. Too many players involved in managing HIV and HIDS commodities at the facility level. For example, ARV dispensers manage ARVs, Lab technicians manage RTKs and Midwives manage ARVs and RTKs for the PMTCT program 		