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ZAMBIA: NATIONAL QUANTIFICATION OF HIV TEST KITS (2009-2015)

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Abstract
In December 2008, the Ministry of Health (MOH), with technical assistance from the USAID | DELIVER PROJECT, Task Order 1, with funds from the President's Emergency Plan for AIDS Relief (PEPFAR). conducted a national long term forecast of rapid HIV tests for 2008 through 2015.

The quantification's overall objective was to calculate rapid HIV test requirements for each year of the forecast period and to use those requirements to mobilize resources for the country. This report presents the findings of the forecast as well as the methodology used and assumptions made to arrive at those findings.

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ACRONYMS

AIDS	acquired immunodeficiency syndrome
ART	antiretroviral therapy
ARV	antiretroviral (drug)
CHAI	Clinton HIV/AIDS Initiative
CHAZ	Churches Health Association of Zambia
CIDRZ	Center for Infectious Disease Research in Zambia
CRS	Catholic Relief Services
ELISA	enzyme-linked immunosorbent assay
GF	Global Fund to Fight HIV/AIDS, Tuberculosis, and Malaria
HIV	human immunodeficiency virus
JICA	Japan International Cooperation Agency
JSI	John Snow, Inc.
LMIS	logistics management information system
MOH	Ministry of Health
NAC	National AIDS Council
PPAZ	Planned Parenthood Association of Zambia
PEPFAR	President's Emergency Plan for AIDS Relief
PMTCT	prevention of mother-to-child transmission (of HIV)
PMU	program management unit
SDP	service delivery point
SFH	Society for Family Health
TB	tuberculosis
UNICEF	United Nations Childrens' Fund
USAID	United States Agency for International Development
USG	United States Government
UTH	University Teaching Hospital, Zambia
VCT	voluntary counseling and testing (HIV/AIDS)
ZPCT	Zambia Prevention Care and Treatment Project
VCTS	Zambia Voluntary Counseling and Testing Services

EXECUTIVE SUMMARY

Zambia is one of the countries in sub-Saharan Africa most affected by the HIV/AIDS (human immunodeficiency virus/acquired immunodeficiency syndrome) pandemic. Currently the prevalence rate is pegged at 14.3%. There are approximately 1.2 million people infected with HIV.

The Government of the Republic of Zambia's Ministry of Health (MOH) and partners have embarked on a major effort to enhance the supply chain systems for HIV test kits, antiretroviral (ARV) drugs, malaria, and tuberculosis (TB) drugs. In keeping with this, the MOH, with support from the USAID | DELIVER PROJECT, a project funded by the President's Emergency Plan for AIDS Relief (PEPFAR) through the United States Agency for International Development (USAID), conducted a forecasting workshop for HIV tests from 9th – 10th December 2008 to prepare a long term forecast covering the period 2009 – 2015.

The main objectives of this forecasting workshop were as follows:

1. Agree on the HIV patient testing targets for the period 2009-2015.
2. Document key assumptions agreed among stakeholders
3. Discuss and document potential funding sources to address forecast.
4. Identify the HIV tests commodity funding gap.

The main outcomes of the workshop were a seven year forecast and procurement plan for HIV tests for the period 2009-2015 and the identified funding gaps.

INTRODUCTION

Zambia's Ministry of Health (MOH) and its partners in their mission to provide a reliable supply of HIV test kits to public sector facilities, with technical support of the USAID | DELIVER PROJECT undertook a long term forecast and quantification exercise for human immunodeficiency (HIV) test kit needs for the period 2009 to 2015. The goal of the exercise was to prepare a seven year forecast and procurement plan for HIV tests covering the period January 2009 to December 2015, identify funding gaps and support needed for the provision of HIV testing services in Zambia and to present the plan and gaps to key stakeholders for decision making.

The software package ProQ was used to prepare the demand forecasts for the HIV test kits and PipeLine was used to conduct procurement planning.

APPROACH

Consistent with John Snow, Inc. (JSI) and USAID | DELIVER PROJECT standards the quantification relied on assembling the best available data, and complementing gaps in data with information obtained from all program stakeholders in the form of key assumptions. The quantification process itself was both iterative and participatory in an effort to ensure stakeholder ownership and buy-in of both the process and its results.

Once the scope of work and expectations were clearly defined, the majority of the preparatory work involved assembling background data and conducting a technical review to establish the current state of HIV testing programs as well as to gain an understanding of prior technical assistance efforts and their relevance to the long term quantification exercise. Finally, preparation time was also spent identifying data inputs required for HIV test kit forecasts, and analyzing newly available consumption data for use in informing assumptions made throughout the quantification process.

When the data necessary for estimating user requirements was available and assumptions to fill gaps in the data had been established, the data was entered into ProQ. The final numbers were reviewed and agreed upon and the data was handed over to the appropriate technical lead for entry into PipeLine. From these numbers a procurement plan was developed and the funding gaps identified for each of the years.

The key outputs of this exercise consisted of a Microsoft Access database for HIV test kit forecast, documentation of the quantification process and assumptions made throughout the process.

ASSUMPTIONS

The following detailed assumptions accompany the ProQ database for the Zambia 2009-2015 HIV test kit quantification.

Given the scarcity of data for use in preparing a forecast for any new or expanding program, JSI's experience has demonstrated that informed assumptions can be a viable substitute for real data in the short term, if they are clearly documented and correctly interpreted and used. The word informed is used to suggest that assumptions are derived from the experience of service providers or program managers who have actually run the program, tested clients, and managed stocks at all levels of the health system.

The assumptions used to fill the resulting gaps in data were informed to the best ability of workshop stakeholders. See Appendix A for a list of workshop participants.

GENERAL ASSUMPTIONS

1. The forecast for HIV test kits was prepared as a national level forecast inclusive of MOH test kits flowing through Medical Stores Limited (MSL) and test kits being managed by and distributed through other in-country stakeholders.
2. A serial testing algorithm including Determine as the screening test, Unigold as the confirmatory test, and SD Bioline as the tie breaker was assumed.
3. The forecast was conducted for clients accessing HIV testing and counseling for the following service categories/purposes of use: clinical diagnosis, voluntary counseling and testing (VCT), and prevention of mother-to-child transmission (PMTCT). Additionally, the quantification includes forecasts of HIV test kits used for the purpose of quality control (assumed to be in remote testing sites) and "other uses" (for which service providers are required to specify).
4. HIV testing for the purpose of blood safety was assumed to be done using enzyme-linked immunosorbent assay (ELISA) testing. Therefore, blood safety was not included as a purpose of use in the forecast.
5. HIV testing conducted for "Other Uses" is assumed to be inclusive of both training and research needs.
6. For all years considered in the forecast, the Unigold requirement is 25% that of Determine.
7. For all purposes of use, a 5% discordance rate was assumed across each of the seven years in the forecast period.

TARGET ASSUMPTIONS

1. Table 1 provides a summary of the national targets and the actual clients tested in 2007 considered in the forecast. Data on clients tested in 2007 was based upon the aggregation of individual client testing numbers as compiled by the National AIDS Council (NAC). Stakeholders present submitted their client testing numbers for 2007. Data submitted by stakeholders on clients tested and testing targets for 2009-2015 was inadequate as not all stakeholders were represented at the workshop submitted these numbers. Workshop participants agreed to extrapolate from the 2007 number of clients tested to arrive at targets for the remaining years (2008-2015). A rate of change of 20% was agreed for all the years starting from the 2007 number of clients tested.

   Table 2 lists the actual clients tested in 2007 and the targets for clients to be tested in 2009-2015 as provided by each participating stakeholder. Stakeholder consensus was that the aggregation of these numbers was too low as a result of incomplete reporting within the workshop forum.

Table 1. National HIV Testing Targets

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Target Clients Tested at the End of the Year	867,147	1,049,577	1,248,693	1,498,432	1,798,119	2,157,743	2,589,292	3,107,150	3,728,580

Table 2. Stakeholder Clients Tested (2007) and Testing Targets (2009-2015)

Stakeholder	Total Clients Tested (2007)	Target client tested 2008	Target client tested 2009	Target client tested 2010	Target client tested 2011	Target client tested 2012	Target client tested 2013	Target client tested 2014	Target client tested 2015
CHAZ	82,639								
CHRESO Ministries	1,626	2,620	2,780	3,240	2,488	2,588	2,688	2,688	2,788
CIDRZ	158,158	180,000							
CRS Success	12,000	6,000							
Kara Counseling	17,511	20,000	23,000	25,300	500	550	575	600	600
Mwaroky	15,868	10,000	19,000	21,000					
PPAZ	737	85	102	123	1,707	2,048	2,457	2,948	3,537
Project Concern		8,000	8,000	8,000					
Rapids PMU		15,000	20,000	25,000					
SFH	135,987	140,000	150,000	160,000	192,000	230,400	276,500	332,000	398,000
SHARe	13,698	26,000	30,000	36,000					
UTH Virology Lab	6,651	8,000	10,000	12,000	14,000	16,000	18,000	20,000	22,000
ZPCT	189,130	156,000	156,000	156,000					
Total	634,005	571,705	418,882	446,663	210,695	251,586	300,220	358,236	426,925

2. Tables 3 and 4 provide a summary of the breakdown of the national targets into their associated purpose of use populations. Table 3 summarizes the agreed upon percentage purpose of use breakdowns while Table 4 applies those percentages to actual total clients tested, in 2007, and total testing targets in 2008 to 2015 to come up with the actual number of clients tested and targets by purpose of use.

Table 3. Percentage of Target Clients Tested by Purpose of Use

Percentage of Clients Tested By Purpose	2007	2008	2009	2010	2011	2012	2013	2014	2015
VCT	51.0%	56.0%	57.1%	61.6%	66.6%	70.6%	74.6%	77.6%	80.6%
PMTCT	34.0%	35.0%	34.0%	30.0%	25.5%	22.0%	18.5%	16.0%	13.5%
Clinical Diagnosis	13.0%	7.0%	6.0%	5.5%	5.0%	4.5%	4.0%	3.5%	3.0%
Quality Control	1.0%	1.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Other	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%

Table 4. Target Clients Tested by Purpose of Use

	2007	2008	2009	2010	2011	2012	2013	2014	2015
Targets Clients Tested at the End of the Year	867,147	1,049,577	1,248,693	1,498,432	1,798,119	2,157,743	2,589,292	3,107,150	3,728,580
Clients Tested in the VCT Program	442,245	582,723	713,004	923,034	1,197,547	1,523,367	1,931,612	2,411,148	3,005,235
Clients Tested in the PMTCT Program	294,830	364,202	424,556	449,530	458,520	474,703	479,019	497,144	503,358
Clients Tested for the Purpose of Clinical Diagnosis	112,729	72,840	74,922	82,414	89,906	97,098	103,572	108,750	111,857
Samples Tested for Quality Control	8,671	10,406	24,974	29,969	35,962	43,155	51,786	62,143	74,572
Clients Tested for Other Purposes	8,671	10,406	11,238	13,486	16,183	19,420	23,304	27,964	33,557

It was assumed that the PMTCT program was to increase testing over the forecast period. The program had a target of reaching 500,000 by the year 2015. Additionally, it was anticipated that the absolute number of patients being tested for the purpose of clinical diagnosis would also increase due to the scale up of pediatric ART. It was also projected that quality control, as a percentage of the total tests used, would increase over the forecast period.

TESTING PREVALENCE ASSUMPTIONS

1. Based upon stakeholder experience, testing prevalence rates by purpose of use were agreed upon for each of the forecast years. Table 5 summarizes the testing prevalence for each of the pre-selected purposes of use.

   Note: Testing prevalence refers to the prevalence of HIV positive results among the associated patient population. It is used to determine an estimate of the number of confirmatory tests required. However, more often than not it does not correspond with the HIV prevalence seen in the general population.

Table 5. HIV Testing Prevalence by Purpose of Testing

Overall HIV Prevalence	2006*	2007	2008	2009	2010	2011	2012	2013	2014	2015
HIV Prevalence (General Population)	16.0%	14.3%								
HIV Testing Prevalence By Purpose										
VCT	25.0%	15.3%	24.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%	22.0%
PMTCT	19.0%	16.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%	14.0%
Clinical Diagnosis	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Quality Control	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%
Other	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%	70.0%

SERVICE CAPACITY, QUALITY CONTROL AND WASTAGE ASSUMPTIONS

1. For all seven years, it was assumed that service capacity would not be a limiting factor to program expansion.
2. It was confirmed that routine testing for the HIV testing program was to be executed via the use of ELISA testing. As a result, workshop participants assumed that the demand forecast would not require adjustment to account for routine quality control testing using rapid HIV tests.

   Note: Some quality control testing is being done through the use of rapid HIV test kits. An increase in the number of sites conducting quality control was expected to increase steadily. Therefore, these tests were accounted for by forecasting for them under the quality control purpose of use.
3. Table 6 shows the wastage rates at service delivery points (SDPs) obtained from the logistics management information system (LMIS) for the months of August, September and October 2008. There was a relatively higher wastage rate in Unigold in the three months (average of 4.1%). This was attributed to a number of new facilities that were just trained in the New National HIV Test Logistics System that had expired Unigold tests.

Table 6. Wastage rates at SDPs in August to October 2008

WASTAGE RATES AT SDPs			
	AUGUST	SEPTEMBER	OCTOBER
DETERMINE	1.1%	1.3%	0.5%
UNIGOLD	4.4%	5.5%	2.4%
SD Bioline	0.1%	0.2%	0.1%

Based on wastage rates observed and outlined in the table above, workshop participants agreed on the following wastage rates:

Table 7. Acceptable Wastage Percentages (2009-2015)

Acceptable Wastage	2009	2010	2011	2012	2013	2014	2015
Screening Test - Determine	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Confirmatory Test - Unigold	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%	2.0%
Tie Breaker - SD Bioline	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%

FINDINGS

The long term HIV test kit quantification was executed via a top-down approach. However, a small amount of data was gathered via a data collection survey prior to the stakeholders' workshop. Data gathered was used during the course of the workshop to inform assumptions made during the quantification process. See Appendix B for a copy of the HIV test kit questionnaire focusing on the collection of service statistics, logistics statistics and testing targets.

The stakeholders' workshop began with the establishment of national HIV testing targets for each of the forecast years. These targets were then broken down further into five different testing purposes; VCT, PMTCT, clinical diagnosis, quality control and other. Table 8 summarizes overall testing targets and the targets for each purpose of testing agreed upon in the workshop by each of the program stakeholders.

Table 8. National HIV Testing Targets with purpose of use.

	2007*	2008	2009	2010	2011	2012	2013	2014	2015
Targets Clients Tested at the End of the Year	867,147	1,049,577	1,248,693	1,498,432	1,798,119	2,157,743	2,589,292	3,107,150	3,728,580
Clients Tested in the VCT Program	442,245	582,723	713,004	923,034	1,197,547	1,523,367	1,931,612	2,411,148	3,005,235
Clients Tested in the PMTCT Program	294,830	364,202	424,556	449,530	458,520	474,703	479,019	497,144	503,358
Clients Tested for the Purpose of Clinical Diagnosis	112,729	72,840	74,922	82,414	89,906	97,098	103,572	108,750	111,857
Samples Tested for Quality Control	8,671	10,406	24,974	29,969	35,962	43,155	51,786	62,143	74,572
Clients Tested for Other Purposes	8,671	10,406	11,238	13,486	16,183	19,420	23,304	27,964	33,557

*** The target number of clients tested in 2007 is representative of the actual number of clients tested at the end of 2007 (NAC).**

The establishment of testing targets for each purpose of testing enabled participants to estimate the forecasted number of screening tests required in each of the forecast years. However, in order to determine the corresponding number of confirmatory tests and tie-breaker tests required, information from the LMIS was used.

LMIS data for the months of June-October 2008 was used to determine the proportion of the confirmatory and tie-breaker tests needed for the forecast period.

The tables below show the number of tests used and proportions of the confirmatory and tie breaker tests used during the period June-October 2008.

Table 9. HIV Tests Consumption for June-October 2008.

HIV TESTS CONSUMPTION (JUN-OCT 2008)					
	June	July	August	September	October
Determine	44,752	45,061	54,127	66,768	70,230
Unigold	10,024	9,443	11,286	15,621	15,760
SD Bioline	271	430	342	632	380

Table 10. Proportion of confirmatory and tie breaker tests used between June-October 2008.

ATIOS (percentages)						
	June	July	August	September	October	Averages
Unigold/Determine	22.4%	21.0%	20.9%	23.4%	22.4%	22.0%
SD Bioline/Unigold	2.7%	4.6%	3.0%	4.0%	2.4%	3.3%

From the data above, participants agreed to use 25% of the Determine required for each year of the forecast period as the Unigold requirement and 5% of Unigold required as the SD Bioline requirement.

In the final step of the process, workshop participants discussed the three ways in which the forecasted HIV test kit requirements would be adjusted; based upon service capacity, to account for routine quality control testing and to allow for an acceptable level of wastage. Due to the fact that service capacity constraints were taken into consideration when setting the testing targets, participants were in agreement that the forecasted requirements would not require downward adjustment based upon service capacity constraints.

Finally, workshop participants decided that the forecasted HIV test kit requirements would have to be adjusted to allow for an acceptable level of wastage of test kits in the system. Table 7 outlines the agreed upon acceptable level of wastage of each particular HIV test kit over each year of the forecast period.

ESTIMATE OF REQUIREMENTS

Using the standard quantification software package for HIV test kits, ProQ, the data collected over the course of the two day workshop was compiled into a database made up of individual data subsets for each year of the forecast period (2009-2015). Within these data subsets, individual HIV test kit requirements were calculated and reported for each purpose of testing for each of the respective years.

Table 11 represents the forecasted HIV test kit requirements, in tests, for each year of the forecast period from the stakeholders' workshop.

Table 11. Forecasted HIV Test Requirements (in Tests)

	2009		
	Determine	**Unigold**	**SD Bioline**
Clinical Diagnosis	101,900	25,475	1,274
VCT	969,700	242,425	12,121
PMTCT	577,400	144,350	7,218
Other Uses	15,300	3,825	191
Quality Control	34,000	8,500	425
Total	1,698,300	424,575	21,229
	2010		
	Determine	**Unigold**	**SD Bioline**
Clinical Diagnosis	112,100	28,025	1,401
VCT	1,255,400	313,850	15,693
PMTCT	611,400	152,850	7,643
Other Uses	18,400	4,600	230
Quality Control	40,800	10,200	510
Total	2,038,100	509,525	25,476
	2011		
	Determine	**Unigold**	**SD Bioline**
Clinical Diagnosis	122,300	30,575	1,529
VCT	1,628,700	407,175	20,359
PMTCT	623,600	155,900	7,795
Other Uses	22,100	5,525	276
Quality Control	49,000	12,250	613
Total	2,445,700	611,425	30,571
	2012		
	Determine	**Unigold**	**SD Bioline**
Clinical Diagnosis	132,100	33,025	1,651
VCT	2,071,800	517,950	25,898
PMTCT	645,600	161,400	8,070
Other Uses	26,500	6,625	331

Quality Control	58,700	14,675	734
Total	2,934,700	733,675	36,684
	2013		
	Determine	**Unigold**	**SD Bioline**
Clinical Diagnosis	140,900	35,225	1,761
VCT	2,627,000	656,750	32,838
PMTCT	651,500	162,875	8,144
Other Uses	31,700	7,925	396
Quality Control	70,500	17,625	881
Total	3,521,600	880,400	44,020
	2014		
	Determine	**Unigold**	**SD Bioline**
Clinical Diagnosis	148,000	37,000	1,850
VCT	3,279,200	819,800	40,990
PMTCT	676,200	169,050	8,453
Other Uses	38,100	9,525	476
Quality Control	85,900	21,475	1,074
Total	4,227,400	1,056,850	52,843
	2015		
	Determine	**Unigold**	**SD Bioline**
Clinical Diagnosis	152,200	38,050	1,903
VCT	4,087,200	1,021,800	51,090
PMTCT	684,600	171,150	8,558
Other Uses	45,700	11,425	571
Quality Control	101,500	25,375	1,269
Total	5,071,200	1,267,800	63,390

ESTIMATED COST OF HIV TESTS (2009-2015)

Having agreed on the required number of tests, participants went ahead to estimate the cost of the tests. The costs per test used were $0.80 for Determine, $1.60 for Unigold and $0.80 for SD Bioline. It was also assumed that the freight costs for the years 2009 and 2010 will be 10% of the cost of products while for the years 2011 to 2015 were at 15%. Table 12 below gives the details.

Table 12. Funds required for HIV tests for 2009-2015 (in dollars)

2009									
	Determine		Unigold		SD Bioline		Annual cost	Freight	Total
	Tests	Kits	Tests	Kits	Tests	Kits	2,054,943	205,494	2,260,437
No. of Tests	1,698,300	16,983	424,575	21,229	21,229	849			
Cost ($)	1,358,640		679,320		16,983				
2010									
	Determine		Unigold		SD Bioline		Annual cost	Freight	Total
	Tests	Kits	Tests	Kits	Tests	Kits	2,466,101	246,610	2,712,711
No. of Tests	2,038,100	20,381	509,525	25,476	25,476	1,019			
Cost ($)	1,630,480		815,240		20,381				
2011									
	Determine		Unigold		SD Bioline		Annual cost	Freight	Total
	Tests	Kits	Tests	Kits	Tests	Kits	2,959,297	443,895	3,403,192
No. of Tests	2,445,700	24,457	611,425	30,571	30,571	1,223			
Cost ($)	1,956,560		978,280		24,457				
2012									
	Determine		Unigold		SD Bioline		Annual cost	Freight	Total
	Tests	Kits	Tests	Kits	Tests	Kits	3,550,987	532,648	4,083,635
No. of Tests	2,934,700	29,347	733,675	36,684	36,684	1,467			
Cost ($)	2,347,760		1,173,880		29,347				

2013									
	Determine		**Unigold**		**SD Bioline**		**Annual cost**	**Freight**	**Total**
	Tests	**Kits**	**Tests**	**Kits**	**Tests**	**Kits**	4,261,136	639,170	4,900,306
No. of Tests	3,521,600	35,216	880,400	44,020	44,020	1,761			
Cost ($)	2,817,280		1,408,640		35,216				

2014									
	Determine		**Unigold**		**SD Bioline**		**Annual cost**	**Freight**	**Total**
	Tests	**Kits**	**Tests**	**Kits**	**Tests**	**Kits**	5,115,154	767,273	5,882,427
No. of Tests	4,227,400	42,274	1,056,850	52,843	52,843	2,114			
Cost ($)	3,381,920		1,690,960		42,274				
2015									
	Determine		**Unigold**		**SD Bioline**		**Annual cost**	**Freight**	**Total**
	Tests	**Kits**	**Tests**	**Kits**	**Tests**	**Kits**	**6,136,152**	**920,423**	**7,056,575**
No. of Tests	5,071,200	50,712	1,267,800	63,390	63,390	2,536			
Cost	4,056,960		2,028,480		50,712				

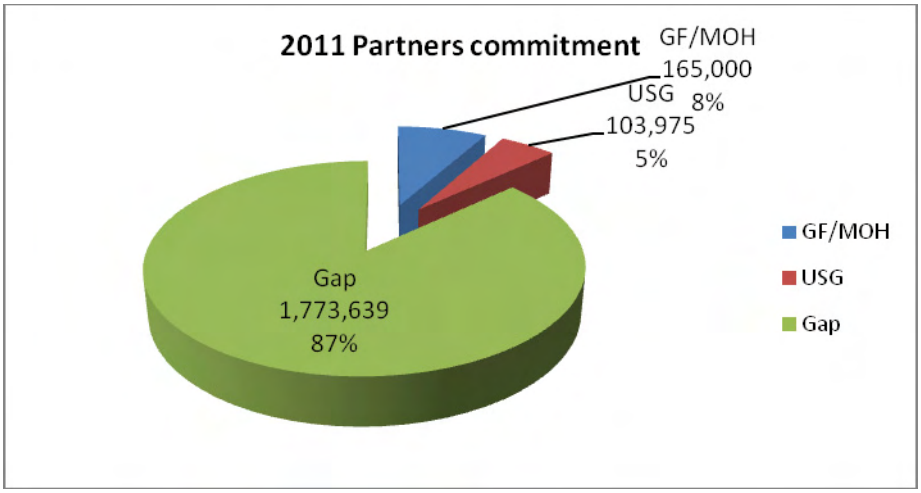
PARTNER COMMITMENTS AND FUNDING GAPS

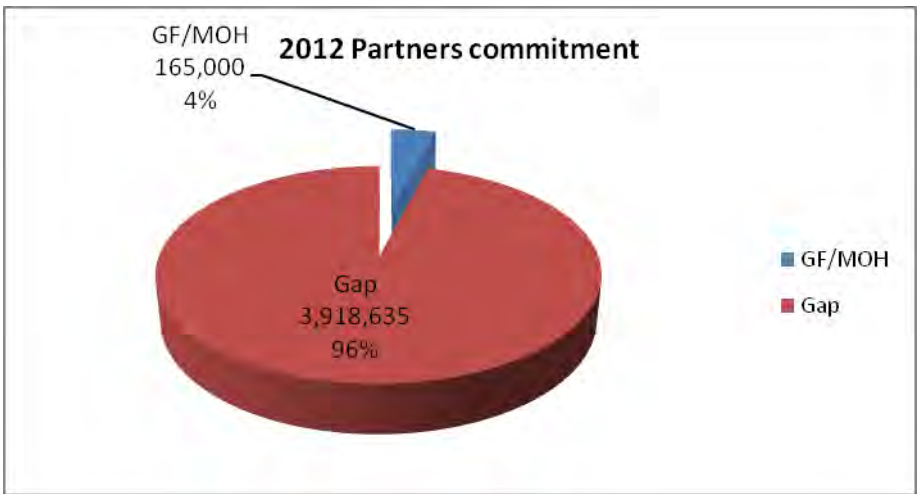
The table below shows the amounts of money committed by partners present at the meeting. The charts show the funding gaps for each of the years considered in the forecast and quantification exercise.

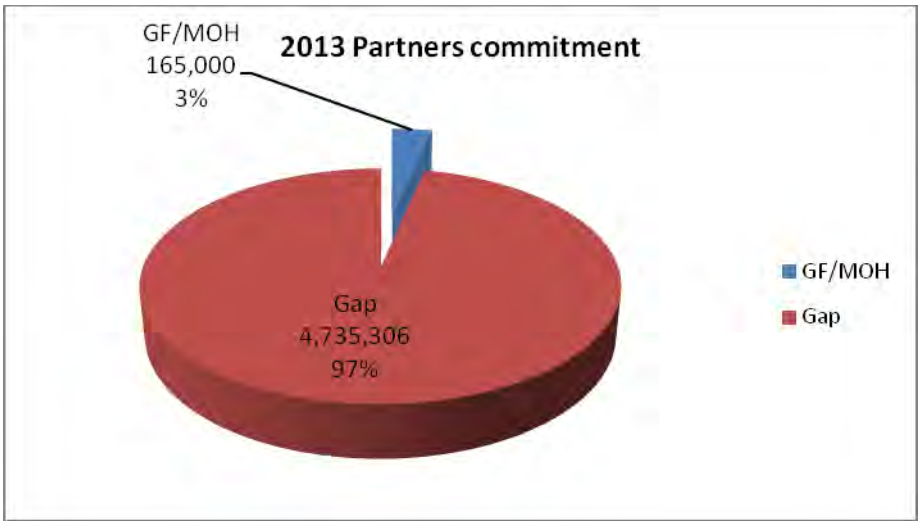
Table 13. Commitments and funding gaps

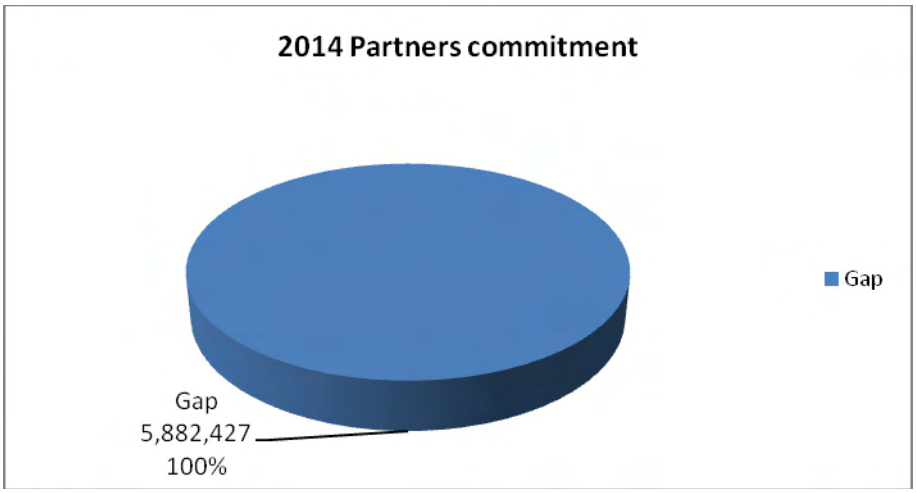
Year	2009	2010	2011	2012	2013	2014	2015	
Funds Required	2,260,437	2,712,711	3,403,192	4,083,635	4,900,306	5,882,427	7,056,572	
MOH								
GF/MOH		144,000	165,000	165,000	165,000			
CHAI/UNITAID	130,406	269,029						
JICA								
USG	1,954,031	2,299,682	103,975					
UNICEF	176,000							
Total	2,260,437	2,712,711	268,975	165,000	165,000	0	0	Total Gap
Gaps	0	0	3,134,217	3,918,635	4,735,306	5,882,427	7,056,572	24,727,157

2010 Partners Commitment
GF/MOH
144,000
5%
CHAI/UNITAID
269,029
10%
USG
2,299,682
85%
GF/MOH
CHAI/UNITAID
USG


2011 Partners commitment
GF/MOH
165,000
8%
USG
103,975
5%
Gap
1,773,639
87%
GF/MOH
USG
Gap


2012 Partners commitment
GF/MOH
165,000
4%
Gap
3,918,635
96%
GF/MOH
Gap


2013 Partners commitment
GF/MOH
165,000
3%
Gap
4,735,306
97%
GF/MOH
Gap


2014 Partners commitment
Gap
5,882,427
100%
Gap

2015 Partners commitment
Gap
7,056,572
100%
Gap

RECOMMENDATION

The following recommendation deals specifically and in detail with actions that need to occur to maximize product availability and minimize stock imbalances at the country level.

RECOMMENDATION: ***Quantification reviews must be maintained and quantifications updated with accurate data on consumption and inventory levels on a quarterly or semi-annual basis.***

The output of a quantification exercise is only valid to the extent that it is kept current through regular and timely updates. It is built both upon actual data and upon assumptions in the absence of data. Consequently, both the actual data and the assumptions made must be continually validated through a process that engages both the team managing the quantification and procurement process and those stakeholders managing products throughout the health system. In order to provide value for procurement planning and resource mobilization, the long term HIV test kit quantification must be continuously updated with accurate data on consumption and inventory levels. Ideally this should be done on a quarterly basis, but at a very minimum every six months.

Given the heavy workload of the team and the potential risk of other emergencies disrupting the ability of the team to routinely update the quantifications and procurement plan, it is important that processes, timeframes and responsibilities are established in advance. Establishing the processes should take into account: a) responsibilities for maintaining and updating the Pipeline databases based on monthly data from the LMIS reports; b) sufficient time to complete the activity; c) allocation of sufficient staff time and appropriate skill mix from each of the participating stakeholders; and d) timing the results to coincide with timely updates to suppliers and appropriate dissemination channels for other stakeholders.

APPENDICES

APPENDIX A: WORKSHOP PARTICIPANTS

No	NAME	POSITION	ORGANIZATION
1	Jillian Johannsen	Program Manager	CHAI
2	Helmut Reutter	Executive Director	Chreso Ministries
3	Maybin Mumba	M & E Officer	CIDRZ
4	Hilda Shakwelele	Program Analyst	Clinton Foundation
5	Jubra Muyanga	Tech Consultant	JICA
6	Shinya Matsuura	Expert	JICA
7	Bridget Shanobe	Community Officer	Kara Counseling
8	Sharon Mwangani	Community Officer OVC	Kara Counseling
9	Arnold Shatunka	Program Officer	Kara Counseling
10	Ben Miti	Executive Director	Latkings
11	Clement Phiri	Biomedical Scientist	MOH
12	Katoba Kanjere Musukwa	Principal Biomedical Scientist	MOH
13	Sheila Mwangala	Biomedical Scientist	Virology lab-NUFU project
14	Sattin Eric	Advisor	NAC
15	Motoko Seko	HIV/TB Coordinator	NAC/JICA
16	Mercy Ulaya	PMTCT/VCT Specialist/Nurse	National HIV/AIDS/STI/TB Council
17	Josephine Simuchimba	Medical Lab technician	Planned Parenthood Association of Zambia
18	Mark Chomba	Program Officer	Planned Parenthood Association of Zambia
19	Joseph Mkandawire	Supply Chain Officer	Society for Family Health
20	Sara Ngoma	CT TA	World Vision/RAPIDS
21	Hilary Lumano	Snr Lab. Biomedical Scientist	ZPCT
22	Joseph Banda	Administrator	ZVCT (MOH)
23	Sydney Chanda	PHLA	USAID | DELIVER PROJECT
24	Cuthbert Mumbi	PHLO	USAID | DELIVER PROJECT
25	Wendy Nicodemus	Snr Technical Advisor	USAID | DELIVER PROJECT
26	John Sikasote	SPHLA	USAID | DELIVER PROJECT
27	Chaze Samatebele	Admin Assistant	USAID | DELIVER PROJECT

APPENDIX B: HIV TEST KIT DATA QUESTIONAIRE

Thursday, November 06, 2008

To: _____
_____
_____
_____

Dear Sir/Madam

RE: HIV TESTS LONG TERM FORECAST AND QUANTIFICATION MEETING 09-10TH DECEMBER 2008.

In preparation for the upcoming HIV Tests Long Term Forecast and Quantification (2011-2015) meeting to be held on the 09 to 10th December 2008, you are kindly requested to provide us with information as specified in the attached that will aid in the forecasting and quantification process.

The data required is broken down in to two parts**. Section I**: Questions for organizations involved in testing and **Section II**: Questions for organizations involved in procurement. If your organization is conducting both, kindly fill in both sections.

Please review and answer the following series of questions to the extent that the data is available and return it to us by email or on fax no. 256488, no later than **28th November 2008.**

The more data you provide prior to the workshop, the quicker and greater chances for conducting a successful quantification and supplying everyone with as accurate a forecast and procurement plan as possible.

Thank you in advance for your continued effort with this activity.

Yours Faithfully,

David Papworth
Deputy Country Director

SECTION I

Questions for Organizations Involved in Testing

1. List the brands of tests being used in your program (e.g. Determine, Unigold, SD Bioline, other):
2. Please provide us with the following 2007 **Service Statistics**:

Total Patients Tested in 2007:					
	VCT	**PMTCT**	**Clinical Diagnostics**	**Blood Safety**	**Other (Please Specify)**
Patients Tested By Purpose of Use (2007)					

HIV Prevalence (2007):					
	VCT	**PMTCT**	**Clinical Diagnostics**	**Blood Safety**	**Other (Please Specify)**
HIV Prevalence By Purpose of Use (2007)					

3. Please provide us with data, as available, the following **Logistics Statistics** (blank rows have been given in case other brands of tests are being used in your testing program): All data should be in terms of tests.

	Total Usage (2007)	**Beginning Balance (Jan. 1, 2007)**	**Total Receipts (2007)**	**Losses/ Adjustments (2007)**	**Ending Balance (Dec. 31, 2007)**
Determine					
Unigold					
SD Bioline					
Genie II					
Bionor					

If available, please provide usage data for each specific test kit by Purpose of Use (blank rows have been given in case other brands of tests are being used in your testing program):

Usage					
	VCT	**PMTCT**	**Clinical Diagnostics**	**Blood Safety**	**Other (Please Specify)**
Determine					
Unigold					
SD Bioline					

4. Please provide us, as available, with the vision of the future for your testing program in the form of **Testing Targets** and anticipated **Rates of Change/Scale Up Factors**:

Total Program Testing Target 2011:	
Total Program Testing Target 2012:	
Total Program Testing Target 2013:	
Total Program Testing Target 2014:	
Total Program Testing Target 2015:	

Testing Targets By Purpose of Use					
	VCT	**PMTCT**	**Clinical Diagnostics**	**Blood Safety**	**Other (Please Specify)**
2011					
2012					
2013					
2014					
2015					

Program Rate of Change/Scale Up Factor 2011:	
Program Rate of Change/Scale Up Factor 2012:	
Program Rate of Change/Scale Up Factor 2013:	
Program Rate of Change/Scale Up Factor 2014:	
Program Rate of Change/Scale Up Factor 2015:	

Rate of Change/Scale Up Factor By Purpose of Use					
	VCT	**PMTCT**	**Clinical Diagnostics**	**Blood Safety**	**Other (Please Specify)**
2011					
2012					
2013					
2014					
2015					

SECTION II

Questions for Organizations Involved in Procurement

5. Kindly provide us with HIV tests procurement information and your future financial commitments by filling in the table below. (Blank rows have been given in case other brands of tests are being procured by your program)

	Quantity Procured (2007)	Price (2007)	Procurement Lead Time	Quantity or Financial Commitment for Procurement (2011)	Quantity or Financial Commitment for Procurement (2012)	Quantity or Financial Commitment for Procurement (2013)	Quantity or Financial Commitment for Procurement (2014)	Quantity or Financial Commitment for Procurement (2015)
Determine								
Unigold								
SD Bioline								
Genie II								
Bionor								

For more information, please visit deliver.jsi.com.

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