Lablite: baseline mapping survey of decentralised ART service provision in Malawi, Uganda and Zimbabwe

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LBPE7

Background & Methods

- By end 2010, Malawi, Uganda and Zimbabwe accounted globally for 10% HIV-infected individuals; antiretroviral therapy (ART) coverage rates vary from 47-59%
- The Lablite project is an implementation project investigating strategies to roll out HIV treatment safely and cost-effectively in sub-Saharan Africa; it has 3 components
  - A comprehensive baseline survey (presented here) to describe HIV care & ART provision on the ground
  - A demonstration project to show how decentralised delivery of HIV treatment would work in lower level health centres with little or no laboratory facilities
  - Health economics and modelling work to assess the cost-effectiveness of different combinations of policies for HIV-testing and ART delivery
- The Lablite project started with a comprehensive base-line survey, between 11/2011-03/2012
- ≥20 health facilities were selected in each of Malawi, Uganda and Zimbabwe, representing different regions and facility levels, with the aim of describing and comparing ART delivery nationally and between countries. Facilities included those at different stages of ART provision but were not selected by accessibility to laboratory services
- A questionnaire was administered to the in-charge nurse or clinician of the facility or a representative who was able to provide details on service provision and health care provider training at the facility
- In most facilities the questionnaire was completed within one day; occasionally the interviewer returned on a second day to collect additional information. Questions related to services at the time of the survey (and for information on numbers of visits, stock-outs etc, the 3 months prior to survey)
- Additionally, in Malawi and Zimbabwe focus group discussions and/or key informant interviews among front-line health care providers were carried out ***(see poster LBPE44)***

Health care facilities included in the Lablite baseline survey

Table 1: Health care facilities included in the baseline survey

Facility Type	Malawi n=21	Uganda n=39	Zimbabwe n=20
Lower level			
Dispensary	2	0	0
Health centre no level	15	0	12
Health centre level III	0	21	0
Health centre level IV	0	8	0
Hospitals			
Private/Mission hospital	1	3	3
District hospital	1	5	5
Central hospital	1	2	0
Other (Maternity unit)	1	0	0

Waiting room, Health Centre, Northern Uganda

Table 2: Lower level health care facilities included in the baseline survey

	Malawi n=17	Uganda n=21	Zimbabwe n=12
Location Type			
Urban	3	3	2
Peri-urban	2	3	1
Rural	12	15	9
Access Road			
Tarmac	4	1	9
Functioning dirt road	13	20	3
Catchment Population: Median (range)	29,522 (11,074-1897,168)	9,000 (325-210,000)	11,174 (4,481-113,000)
Time to travel to nearest tertiary care facility (hours, by vehicle): Median (range)	2 (0.25-6)	0.7 (0.25-4)	1.3 (0.25-3.5)
Staffing levels: mean (range)			
Medical Assistant/Clinical Officer	2.0 (0-10)*	1.5 (1-2)	0
Nurse/Midwife	4.3 (0-16)	5.0 (1-15)	9.0 (2-27)
Counsellor	0.1 (0-2)	0.2 (0-4)	1.4 (1-5)
Lay community health worker/HSA	16.8 (0-31)	0.4 (0-6)	2.8 (0-29)
Laboratory technician	0.4 (0-2)	0.8 (0-2)	0

* All staffing data is missing for the facility serving the largest catchment population in Malawi so this facility is excluded

- In all 3 countries, most lower level facilities were rural
- Populations served varied widely, even within country
- Staffing was predominantly by nurses/midwives, although in Malawi where task-shifting is being implemented 71% non-administrative staff were community healthworkers/HSAs
- Very few facilities had laboratory staff

Service provision

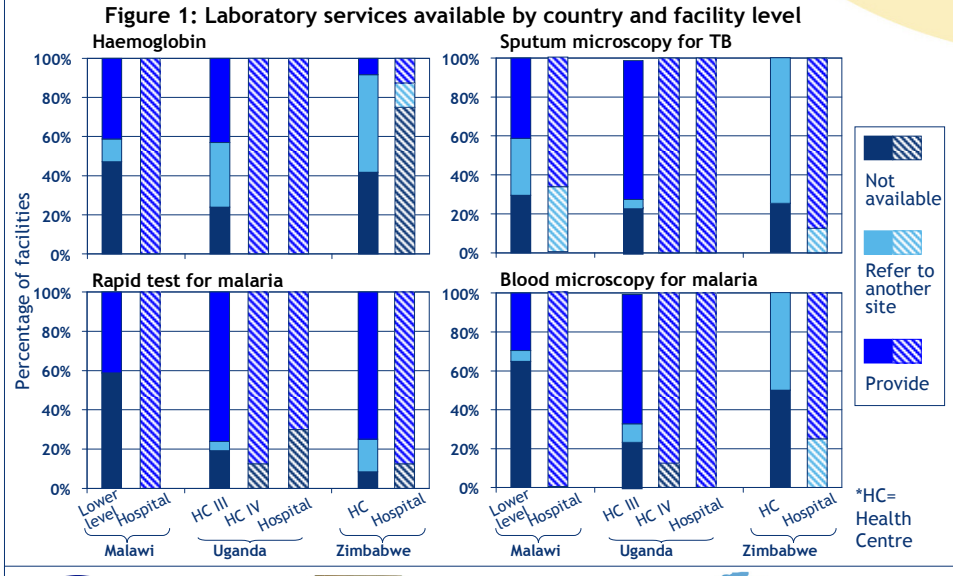
Table 3: Service Provision in lower level health care facilities

	Malawi n=17	Uganda n=21	Zimbabwe n=12
HIV Testing and Counselling	17 (100%)	21 (100%)	12 (100%)
TB treatment	17 (100%)	17 (81%)	10 (83%)
Cotrimoxazole prophylaxis	16 (94%)	19 (90%)	12 (100%)
Prevention of Mother to Child Transmission	16 (94%)	21 (100%)	12 (100%)
DNA PCR for early infant diagnosis (off-site)	10 (59%)	11 (52%)	8 (67%)
Antiretroviral therapy	10 (59%)	6 (29%)	12# (100%)

#All lower level facilities in Zimbabwe were outreach clinics, so ART was provided by a team visiting from a referral centre. 1/12 facilities did not provide paediatric ART.

- All health centre IVs and hospitals provided all services in table 3 except for DNA PCR for early infant diagnosis, which was provided in 3/3, 13/18 and 5/8 facilities in Malawi, Uganda and Zimbabwe respectively

Figure 1: Laboratory services available by country and facility level



Adults and children on ART

- In lower level health care facilities providing ART median (range) numbers of adults on ART were 294 (83-9150) in Malawi, 200 (99-792) in Uganda and 182 (44-2549) in Zimbabwe
- Numbers of children on ART were 24 (4-450) in Malawi, 30 (5-69) in Uganda and 16 (3-67) in Zimbabwe in lower level facilities
- Across all facilities, children constituted 6% of patients on ART in Malawi, 10% in Uganda and 7% in Zimbabwe
- Larger numbers were generally treated in level IV health centres and hospitals

Rapid HIV Testing at a School in Zomba District, Malawi ©Dignitas International 2012

CD4 and viral load in facilities providing ART

Table 4: Availability and use of CD4 and viral load in facilities providing ART

Country	Malawi		Uganda			Zimbabwe	
Facility Level	Lower level n=10	Hospital n=3	Health Centre III n=6	Health Centre IV n=8	Hospital n=10	Health Centre n=12	Hospital n=8
Regular CD4 testing							
Sample collection and testing done on site	3	2	0	3	6	0	6
Sample collection on site and sent to referral lab	0	0	6	3	4	10	2
Patient sent to referral lab	3	1	0	1	0	1	0
Not regularly available	4	0	0	1	0	1	0
CD4 testing regularly used for ART initiation							
In all patients	2	2	1	1	6	6	4
Selected patients	3	0	4	6	4	5	3
Not used regularly	5	1	1	1	0	1	0
CD4 monitoring used on ART							
Regularly	0	0	6	7	10	8	4
If clinically indicated	4	0	0	0	0	1	1
Not used regularly	6	3	0	1	0	2	1
Viral load							
Provide	1*	1	0	0	2	0	0
Refer to another site	0	0	5	5	6	2	0
Not available	9	2	1	3	2	10	8

Where numbers do not sum to total this is because of facilities with missing information. * Urban health centre supported by NGO.

- Across all 3 countries there was limited access to on-site CD4-testing, particularly in lower level health facilities
- Pre-ART and post ART CD4 testing was less likely to be used in Malawi than Uganda and Zimbabwe
- In Malawi and Zimbabwe few facilities had access to viral load testing on-site or by referral. In Uganda 18/24 sites were able to access viral load testing (16 off site)

Major issue: stock-outs of HIV test kits and drugs

Table 5: Stock-outs in the 3 months prior to survey by country and facility level

Country	Malawi		Uganda			Zimbabwe	
Facility Level	Lower level	Hospital	Health Centre III	Health Centre IV	Hospital	Health Centre	Hospital
HIV test kits							
# facilities with stock-outs	9/17	0/3	5/21	1/8	4/10	1/12	0/8
#days/90 per facility if >0	3,8,14,14,18, 23,25,30,30	-	3,14,30, 30,30	90	1,5,7,21	7	-
Cotrimoxazole							
# facilities with stock-outs	11/16	0/3	8/19	3/8	1/10	0/12	1/8
#days/90 per facility if >0	14,21,31,45 60,60,66,70, 90,90,90	-	20,21,60, 60,66,90, 90,90	28,30,60	90	-	90
ART for PMTCT							
# facilities with stock-outs	3/16	2/3	3/21	1/8	0/10	0/12	0/8
#days/90 per facility if >0	7,14,60	62,90	2,14,60	31	-	-	-
Adult ART							
# facilities with stock-outs	0/10	1/3	0/6	0/8	0/10	N/A*	1/8
#days/90 per facility if >0	-	30	-	-	-		14
Paediatric ART							
# facilities with stock-outs	2/10	0/3	3/6	2/8	1/10	N/A*	2/8
#days/90 per facility if >0	1,7	-	14,90,90	30,60	14		14,40

Denominators for #facilities equal #facilities providing service
*Health centres providing ART in Zimbabwe were outreach sites and ART was stored centrally

- Stock-outs were more prevalent in Malawi and Uganda than in Zimbabwe
- Stock-outs of HIV test kits and cotrimoxazole were frequent in Malawi and Uganda and often lasted for long periods
- Stock-outs of ART for PMTCT and paediatric ART were more frequent than adult ART

Conclusions

- The Lablite team (www.lablite.org), working with Ministries of Health, conducted a comprehensive situational assessment of HIV care and ART provision in a sample of health care facilities in Malawi, Uganda and Zimbabwe
- Although numbers of facilities surveyed were relatively small in each country (n=21, 39 & 20), facilities were selected from different regions and levels of healthcare to allow us to capture within-country and between-country differences
- ART roll-out to lower level health care facilities is underway with substantial numbers of individuals accessing ART through primary care
- The majority of care in lower level facilities is provided by nurses/midwives and (in Malawi) lay community health workers/HSAs
  - Staffing levels are low (leading to high workload & low morale - ***poster LBPE44***)
- Access to any laboratory tests is very limited, particularly in lower level facilities
  - Few lower level facilities had CD4-testing on site
  - In Malawi few facilities used CD4-monitoring on ART
  - In Malawi and Zimbabwe very few facilities had any access to viral load testing
- Frequent stock-outs of HIV-test kits & drugs were reported, particularly in Malawi & Uganda, & for cotrimoxazole and paediatric ART; supply systems need improvement
- The Lablite demonstration project will collect further information, particularly on referrals for laboratory measurements and on drug stock-outs

With thanks to the Lablite Project team: Joint Clinical Research Centre, Kampala, Uganda: P Mugyenyi, C Kityo, G Abongomera, H Namata **MRC Research Unit on AIDS/Uganda Virus Research Institute, Entebbe, Uganda:** P Munderi, J Seeley, F Mirimo. **University of Zimbabwe, Harare, Zimbabwe:** J Hakim, A Reid, E Chidziva, M Phiri, M Muzambi, T Mabugu **Dignitas International, Zomba, Malawi:** F Cataldo, A Chan, S Sodhi, M Nkhata, E Ratsma, M Van Lettow, J Sadalaki, T Gibb **Infectious Diseases Institute Makerere University, Mulago, Uganda:** E Katabira, I Mambule, S Kaggwa **MRC Clinical Trials Unit:** DM Gibb, A Babiker, AS Walker, M Thomason, D Ford, S Hoskins, A South **University of York:** M Sculpher, P Revill, B Van Den Berg **University College London:** A Phillips, V Cambiano **Imperial College:** C Gilks, C Grundy, **Chair of the Project Management Group:** I Weller
Lablite is funded by the UK Department for International Development (DFID)