Lablite: Training needs for roll out of ART in Uganda and Zimbabwe using optimization of clinical skills and minimization of routine laboratory monitoring

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Background

The DART trial demonstrated that antiretroviral therapy (ART) can be delivered effectively to HIV-infected adults without routine laboratory testing for toxicity; benefits for CD4-testing were small and with limited resources more lives would be saved by treating more people with clinical monitoring. The Lablite project aims to demonstrate ART roll-out to primary health care facilities, optimizing clinical management. Development of strategies for training/mentoring health care workers (HCWs) to clinically monitor patients on ART was identified as important and was premised on a training needs assessment.

Methods

A cross-sectional survey using qualitative and quantitative methods was done at 4 Lablite sites in Uganda and 4 in Zimbabwe. Nine areas of knowledge assessed comprised: diagnosis of HIV/AIDS, HIV staging, starting ART, management of opportunistic infections, side effects of ART, ART failure criteria, monitoring of HIV patients, PMTCT and pharmacy logistics. Assessment of formal training included counseling and HIV prevention but grouped ART management and did not include logistics.

Results

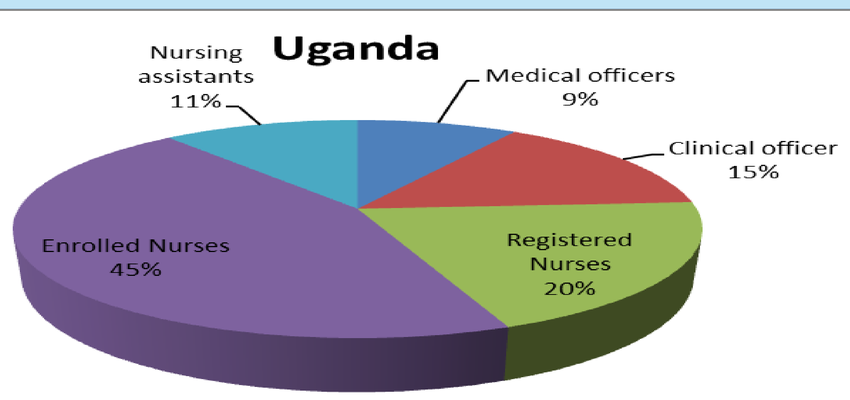
In Uganda, 54 HCWs were assessed in a hospital (33 HCWs), a Health Centre IV (8 HCWs) (both sites providing ART) and 2 Health Centre IIIs (13 HCWs, not providing ART). HCWs assessed were 5 doctors, 8 clinical officers, 35 nurses and 6 nursing assistants. In Zimbabwe, 30 HCWs were assessed in a district hospital (18 HCWs, site providing ART) and 3 primary care facilities (12 HCWs, 2 sites with outreach ART, 1 not providing ART). HCWs assessed were 2 medical officers, 24 nurses, 2 counselors and 2 pharmacy staff.

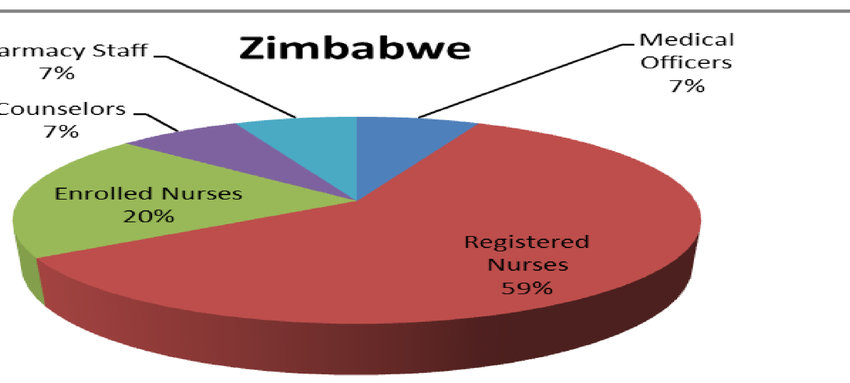
In Uganda in each of nine areas of HIV prevention/management, <32% of HCWs had received formal training, mostly pre-service rather than in-service; proportions were low in all facilities. Only 19% of HCWs had received training in ART initiation (4/5 doctors, 5/35 nurses and 1/6 nursing assistants). In contrast, in Zimbabwe, in each area ≥63% of HCWs had received formal training; 77% of HCWs had received training in ART initiation in the last 2 years (1/2 medical officers, 19/24 nurses, 1/2 counselors, 2 pharmacy staff).

In Uganda, although proportions with formal training were low, proportions with knowledge of different topics were higher, implying mentorship from trained HCWs occurred. Topics HCWs were most conversant with were diagnosis of HIV (69% HCWs conversant) and PMTCT (70%). They were least conversant with pharmacy logistics (33%), monitoring of HIV patients (35%) and clinical criteria for diagnosing treatment failure (7%). Despite more formal training, knowledge levels were generally similar in Zimbabwe; 50% of HCWs were conversant with HIV diagnosis, 63% with PMTCT and only 27% with pharmacy logistics; although 53% were conversant with monitoring and 33% with treatment failure.

Challenges reported by HCWs included: understaffing, poor/unavailable laboratory facilities and lack of confidence in making clinical decisions.

Graphs Showing Clinicians assessed by cadre





Percentages of health workers who have had training in the basics of HIV by topic and cadre

Uganda

	Medical Officer/5	Clinical Officer/8	Registered Nurse/11	Enrolled Nurse/24	Nursing Assistant/6	All cadres/54
Diagnosis of HIV/AIDS	80%	38%	18%	13%	33%	26%
Staging of HIV	80%	25%	18%	17%	33%	26%
Principles of ART	80%	13%	9%	8%	33%	19%
Starting ART	80%	0%	18%	13%	17%	19%
Counseling in HIV/AIDS	60%	0%	36%	17%	33%	24%
PMTCT	60%	13%	18%	42%	17%	31%
HIV prevention	80%	13%	18%	38%	17%	31%
HIV positive prevention	80%	0%	27%	25%	17%	26%
Post exposure prophylaxis	80%	13%	27%	21%	33%	28%

Zimbabwe

	Medical Officer/2	Pharmacy staff/2	Registered Nurse/18	Enrolled Nurse/6	Counsellor/ 2	All cadres/30
Diagnosis of HIV/AIDS	50%	100%	94%	50%	50%	80%
Staging of HIV	50%	100%	94%	67%	50%	83%
Principles of ART	50%	100%	83%	33%	0%	67%
Starting ART	50%	100%	89%	50%	50%	77%
Counseling in HIV/AIDS	0%	100%	78%	83%	50%	73%
PMTCT	50%	50%	94%	67%	0%	77%
HIV prevention	50%	100%	94%	67%	0%	80%
HIV positive prevention	0%	50%	89%	33%	0%	63%
Post exposure prophylaxis	50%	100%	78%	33%	0%	63%

Percentages of health workers who are knowledgeable in the basics of HIV by topic and cadre

Uganda

	Medical Officer/5	Clinical Officer/8	Registered Nurse/11	Enrolled Nurse/24	Nursing Assistant/6	All cadres/54
Diagnosis of HIV	100%	88%	45%	67%	67%	69%
WHO staging of HIV patients	100%	100%	45%	33%	67%	56%
Management of OIs	100%	88%	45%	42%	67%	57%
Starting ART	100%	75%	45%	29%	33%	46%
Side effects	100%	75%	36%	33%	67%	50%
PMTCT	100%	88%	91%	75%	83%	83%
Monitoring of HIV patients	100%	63%	27%	21%	17%	35%
Treatment failure	40%	13%	0%	4%	0%	7%
Pharmacy Logistic Management	100%	50%	27%	17%	33%	33%

Zimbabwe

	Medical Officer/2	Pharmacy staff/2	Registered Nurse/18	Enrolled Nurse/6	Counsellor/ 2	All cadres/30
Diagnosis of HIV	50%	50%	61%	33%	0%	50%
WHO staging of HIV patients	50%	50%	88%	33%	0%	60%
Management of OIs	50%	50%	61%	50%	0%	53%
Starting ART	50%	100%	50%	17%	0%	43%
Side effects	50%	50%	33%	33%	50%	37%
PMTCT	50%	50%	88%	33%	50%	63%
Monitoring of HIV patients	50%	50%	61%	50%	0%	53%
Treatment failure	50%	0%	33%	33%	50%	33%
Pharmacy Logistic Management	0%	50%	39%	0%	0%	27%

Conclusions

Due to understaffing, an onsite mentoring training approach was strongly suggested; some informal mentoring was occurring in Uganda already but clinical mentorship had not been implemented in Zimbabwe. Training should focus on building confidence of HCWs in making clinical decisions with minimal laboratory monitoring. Records/logistics management should be included.