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TECHNICAL REPORT

Private-for-Profit HIV/AIDS Care in Uganda: An Assessment

DECEMBER 2008

This report was prepared by University Research Co., LLC for review by the United States Agency for International Development (USAID) and was authored by Anthony Kyayise, Robert Kyeyagalire, Nigel Livesley, Ibrahim Kirunda, Benson Tumwesigye, Stephen Kinoti, and Dan Katungu. The assessment was carried under the USAID Health Care Improvement Project, which is made possible by the support of the American people through USAID..

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Anthony Musisi Kyayise
Robert Kyeyagalire
Nigel Livesley
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Benson Tumwesigye
Stephen Kinoti
Dan Katungu

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EXECUTIVE SUMMARY

Of Uganda's 4639 health facilities, 2154 (46 %) are privately owned for profits (PFPs). Of them, 36 are accredited to provide care and treatment to people with HIV/AIDS. However, little was known about the quality of care they provide. The quality of HIV care is important to patients treated in all facilities and has broader public health implications as well: Poor care can lead to the spread of resistant virus and weaken people's faith in ART if they become aware of too many poor outcomes. To learn more about the quality of HIV care in PFPs, Uganda's Ministry of Health (MoH) and the United States Agency for International Development (USAID) requested that the USAID Health Care Improvement Project (HCI) assess quality of HIV and antiretroviral therapy (ART) care in Ugandan PFPs. The assessment was conducted in June and July 2008.

All 36 accredited PFP sites were considered for assessment; six were disqualified for practical reasons. For the remaining 30, the study interviewed facility staff and reviewed the records of two patient cohorts—a pre-ART cohort and an ART cohort—at each facility. The study sought 1500 patient records, 25 records for each cohort for each facility, but found only 327. Of them, 57% used the MoH HIV/ART care card; the remaining 43% used other formats for medical records.

Twenty of the 30 PFPs were open on all work days or more. All of them offered voluntary counseling and testing and adult ART; 90% offered TB screening for patients with HIV; 77% offered HIV testing for patients with TB; 60% offered prevention of mother-to-child transmission of HIV; and 50% offered paediatric ART. Only seven (23%) offered all these services. Most did not provide income or nutrition support, insecticide-treated bed nets, or water safety supplies.

Of the 117 pre-ART records found, 36% indicated that these patients had their baseline weight measured; 74% had their baseline CD4 count measured; 53% had their WHO stage recorded; and 51% had evidence of a TB evaluation, all in accordance with MoH guidelines. The Ministry also recommends that a patient be clinically staged at every visit and have a CD4 done at least once every six months, but of these pre-ART records, only 54% showed a visit 6–12 months after registration. Of them, 60% had a CD4 count and 41% had their World Health Organisation (WHO) stage recorded. Only 32% of all pre-ART records had a record of CD4 count, and only 20% had WHO staging done in both the first and second six months of care.

Patient retention in care was poor: After the initial visit, pre-ART patients returned to the PFP a median of four times in the next 12 months, well short of the Ministry's recommendation that a patient return monthly. After the first month, 81% of patients were still in care; this fell to 61% after three months, 54% after six months, and 42% after nine. Rates for starting eligible patients are ART were also poor: 21% of pre-ART patients became eligible in the second six months after registration on the basis of CD4 count, but only 20% of them started ART. Another 11% became eligible based on WHO staging, but only 31% of them started.

Provider adherence to selected standards was generally higher in the ART cohort than the pre-ART cohort. Of 210 ART records found, MoH-recommended ART care cards were used in 68%. For the clinical standards, weight was recorded for 76%, CD4 for 86%, and WHO stage for 74%. Safety blood work was performed for 71% of these patients before initiating ART, but only 28% had their TB status recorded at the first visit. For the selected psychosocial standards, 67% received pre-ART education, 59% had a treatment supporter named in the medical record, and 91% had contact-tracing information recorded. However, only 20% were linked to home-based care.

Patient retention for this group was also poor, declining to 93% after one month, 86% after three months, 76% after six months, and 66% after nine. The provider interviews revealed the most common challenges facilities faced when providing ART services: inadequate drug supply, stock-outs, and high drug costs (reported 73% of sites); inadequate knowledge of ART (50%); and limited human resource capacity to deliver the ART programme effectively (47%).

Providers were asked for their opinions of the causes of poor retention. The five most commonly mentioned reasons were: patients travelling, being transferred, and being deployed (57% of sites); transport difficulties and cost (40%); forgetfulness or busy schedule (27%); sickness/illness and being too weak for the hospital journey (23%); and attending other clinics or transfers-out (21%).

Comparing providers' beliefs of the causes of missed appointments and the interventions PFPs had devised to reduce those misses resulted in an important finding: Little relationship exists between the causes and the interventions/solutions. Of the 30 facilities, 27 had established at least one intervention to reduce missed visits and patient loss to follow-up: 18 emphasised counselling to encourage patients to keep their appointments; nine gave two months' worth of drugs, and seven called patients to remind them of appointments. Other interventions to encourage patients to send a treatment supporter to pick up drugs, transferring patients to health centres closer to the patient to save transport costs, and organising home visits by service providers. Because the most common barriers were believed to be related to distance and transport, additional counselling and reminders would not likely be effective.

The major findings of this assessment of Ugandan PFPs were: 1) adherence with standards was good in the first visit, particularly for clinical activities, but declined over time; 2) retention is the main cause of poor quality care; and 3) sites are making changes to improve quality, but, at least in efforts to improve retention, the changes do not always effectively address the problems.

One limitation of the study is its reliance on medical records. Poor results for adherence to standards and retention could be due to either poor documentation (failure to take notes during patient visits or not recording all information) or care not being provided. This study did not determine the extent of these problems. Care not being provided is obviously more serious, but documentation is essential to providing good quality care over time. HCI is planning studies to assess documentation quality.

As in most health systems, care in privately owned for-profit facilities in Uganda has been designed to provide care to the acutely ill. They are fairly good at adhering to clinical standards at the first visit, suggesting that the PFP system does well at what it has traditionally done: care for patients in the clinic. However, PFPs are not prepared to manage patients with chronic diseases, as is reflected in poor patient retention, declining adherence with standards as a patient is in care longer, and weak links with the community. We have three recommendations to address these weaknesses:

Regularly measure quality: PFPs should be supported to regularly measure and report on indicators of patient retention, adherence with standards, and patient outcomes.

Adapt and incorporate elements of the chronic care model: A major challenge to health systems globally is adapting to the increased prevalence of chronic disease. With the arrival of ART, HIV became a chronic disease requiring emphasis on retaining patients in care over the long term and supporting them at home and in their community. The chronic care model developed by the (United States) University of Washington for chronic disease care could be adapted for Uganda. The model has five components: patient self-management, use of multi-disciplinary teams to provide health care and to support patients, support for less trained members of the team, information systems for long-term care, and links with the community. Improvements in each of these components would be expected to improve the quality of care.

Establish and support quality improvement teams at the site level to make these changes: Making changes to improve chronic care will not be easy. Based on years of experience in improving the quality of care in developing country health systems and the findings reported here, we recommend that the Ministry of Health and its partners establish mechanisms to ensure that PFP health workers are trained in using data to improve care and in quality improvement techniques. The design should incorporate supportive supervision visits that stress adherence to the MoH guidelines and use of the chronic care model so that PFPs can redesign their care systems to be better adapted to the unique challenges of chronic diseases such as HIV.

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ABBREVIATIONS

3TC	Lamivudine
AIDS	Acquired immunodeficiency syndrome
ART	Antiretroviral therapy
ARV	Antiretrovirals
AZT	Zidovudine
CD4	Cluster of differentiation 4
D4T	Stavudine
DHT	District Health Team
DNA PCR	Deoxyribonucleic acid polymerase chain reaction
EFV	Efavirenz
FEFO/FIFO	First expiry, first out/First in, first out
FP	Family planning
FS	Functional status
HCI	Health Care Improvement Project
HIV	Human immunodeficiency virus
MoH	Ministry of Health
NMS	National Medical Stores
NVP	Nevirapine
OI	Opportunistic infection
OVC	Orphans and vulnerable children
PFPs	Privately owned, for-profit health facilities
PICT	Provider-initiated counselling and testing
PMTCT	Prevention of mother-to-child transmission of HIV
RCT	Routine counselling and testing
Rx	Prescription
SCMS	Supply Chain Management System
TB	Tuberculosis
TLC	Total lymphocyte count
URC	University Research Co., LLC
USAID	United States Agency for International Development
VCT	Voluntary counselling and testing
WHO	World Health Organisation
ZN	Ziehl-Neelsen stain

I. INTRODUCTION

Uganda has 4,639 health facilities, including 2,154 (46%) that are privately owned for-profits (PFPs). A 2005 survey of private health facilities (Mandelli, Kyomuhangi, and Scribner) found that most PFPs were in the Central Region; Kampala District alone had 45% of them. It also found that although nearly 60% of the PFPs surveyed offered voluntary counselling for human immunodeficiency virus (HIV) and distributed condoms, only 29% had facilities for HIV testing. Only 12% offered services for the prevention of mother-to-child transmission of HIV (PMTCT), and 2% only offered antiretroviral (ARV) services.

Uganda's Ministry of Health (MoH) had accredited 328 health facilities by 2008 to provide antiretroviral therapy (ART); 36 were PFPs, including six hospitals, 10 workplace clinics (industries/agricultural estates), and 20 independent clinics (equivalent to a level of Health Centre IV and III public facilities). The accreditation process assesses the availability of personnel (medical officer and support staff), availability of drug dispensing and storage facilities, availability of laboratory facilities for basic HIV tests, availability of records and data staff, and the presence of social support systems in the community (usually nongovernmental organizations). However, the process does not measure how well personnel can utilise the facilities and resources available to provide ART services.

A. Background and Justification

The quality of services in these facilities had not been assessed, and little was known about the quality of HIV care in PFPs. Service quality was thought to likely vary from one PFP to another, depending on available resources invested. It was also thought that PFPs might be missing out on support available from the Government and its partners, since PFPs are not integrated with the public health system.

The quality of human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS) care and ART services provided in private health facilities has implications not only for patients treated in those facilities but also for the broader public health. Poor care is frequently associated with non-adherence to ARVs and could lead to viral resistance among clients in these facilities, which in turn could contribute to the spread of resistant virus strains to the larger population. Also, poor outcomes among patients on ART could damage the public's faith in HIV treatment and create more barriers to appropriate therapy.

The United States Agency for International Development (USAID) Health Care Improvement Project (HCI) is working in 120 hospitals and Health Centre IVs in most of the 80 districts in Uganda, strengthening the quality of HIV care and treatment as part of the Ministry of Health's Quality of Care Initiative. As part of this effort, HCI and the MoH have initiated quality improvement activities in five PFPs in collaboration with the Business Partners Program. HCI has the experience and capability to assess the quality of HIV/AIDS services in Uganda's PFPs, the results of which would inform the development of a strategy to improve the quality of those services countrywide.

It was against this background that the MoH and USAID asked HCI to assess the quality of HIV and ART care delivery in selected PFPs in Uganda. Using a methodology and tools developed to conduct an assessment of the quality of care in HCI-supported sites and modifying it to include other technical areas of interest, such as tuberculosis (TB) services, and for appropriate application to PFPs, HCI undertook an assessment of 30 PFPs.

B. Goal and Objectives of the Assessment

The goal of the assessment was to review the quality of HIV care and ART and TB services provided in PFPs in Uganda in order to generate appropriate recommendations and inform the development of a strategy to improve the quality of those services. Specifically, the objectives were:

1. Assess the PFPs' scope of work in the area of HIV care and ART services;
2. Assess the quality of HIV and ART services provided in PFPs, including documentation practices;
3. Document ART regimens prescribed by PFP facilities and the sources of such drugs;
4. Establish the opportunities and challenges PFPs face in providing HIV care and ART services; and
5. Assess PFPs' scope of work regarding TB and TB/HIV integration.

II. METHODOLOGY

The assessment used a descriptive cross-sectional survey methodology, with qualitative and quantitative data collection by a team of trained HIV care and treatment experts. Data collection tools were designed to gather information that relates to MoH-issued guidelines for ART care and treatment. They were pre-tested in three private not-for-profit facilities that had been accredited to provide HIV care and ART services. The tools were then finalised for use in the assessment sites.

A. Site Selection

All 36 accredited PFP sites were considered: Three were eliminated because they are supported by USAID's Health Initiatives for the Private Sector Project, and three declined to participate citing privacy of patient records, leaving 30 sites for the assessment. All selected sites were already MoH accredited to provide ART. (HCI has assisted five PFPs as part of the Quality of Care Initiative in Uganda; all five were among the six that did not participate in this assessment.)

B. Data Collection

Data collection took place in June and July 2008. It consisted of a review of medical records of patients receiving HIV care and comprehensive interviews with key facility personnel. The record review considered two cohorts of patients: one of patients who had registered for pre-ART care 12 months prior to the assessment and who had not initiated ART in the initial three months of that care and one of patients who had been initiated on ART 12 months prior to the assessment.

At the end of each day, accuracy and completeness of the data collection were checked to ensure data quality. In facilities lacking systematic documentation practices, data were collected from any existing patient clinical notes: In such cases the quality of data collected was compromised.

1. Pre-ART Cohort Review

A 12-month retrospective review of case notes was undertaken of a cohort of patients registered in HIV care in June 2007. Patients who had become eligible for ART within the initial three months of pre-ART care were excluded. The review used the following procedure:

- Using the pre-ART register, records of 25 people were sought who had registered for care 12 months earlier. If fewer than 25 had registered then, those who had been in care for more than 12 months were considered.
- Patient care cards for those 25 were retrieved and data collected from them using the Pre-ART Cohort Form (Annex 1). Collected data covered the 12-month period the patient had been in HIV care.
- Where HIV/AIDS care cards and registers were not available, the team used any other sources of data available, including clinic notes.

The methodological design would have resulted in 750 records (30 sites x 25 records = 750); however, due to poor documentation systems, only 117 pre-ART records from the time frame stipulated could be found.

2. ART Cohort Review

Similarly, a retrospective review of case records of a cohort of patients who started on ART 12 months previously was undertaken using the following procedure:

- Using the ART register, 25 people were identified who had started ART 12 months earlier. If fewer than 25 had enrolled then, those who initiated treatment more than 12 months ago were included until a total of 25 patient records was realised.
- Patient cards were then retrieved and reviewed, and data were collected from them using the ART Care Cohort Form (Annex 2).

Again, 750 records were sought, but, for the same reason that few pre-ART records were found, few (210) ART records were found.

3. Key Informant Interviews

Interviews with staff—hospital/clinic manager, HIV/ART in-charge, laboratory in-charge, pharmacy in-charge, and PMTCT in-charge—were held and explored the services each facility provided, systems for caring for patients, drugs available and processes for their acquisition, and links with other facilities offering similar services. The Facility Key Informant Interview Form (Annex 3) was used to record interview information.

C. Data Entry and Analysis

The data were entered in Microsoft Excel and then exported using Stat/Transfer6 to SPSS 10.0.5 for Windows for cleaning and analysis. Data analysis focused on assessing coverage levels for the different programme indicators. To a large extent, proportions were computed to determine the status of each indicator. Description of key variables was done to reveal the possible factors behind the variations. The SPSS statistical software was used to compute the proportions. The following sections detail the findings in each programme area for both patient- and facility-based indicators.

The data quality was found to be appropriate though there were limitations due to weak documentation systems in most facilities. In some cases, no recording was done, limiting the data collection. Results of the cohort analysis are based on data collected from the existing records at the site. For facilities without available data collection tools in their documentation system, data were not captured.

III. RESULTS

This section presents results from the interviews, with emphasis on the facilities' scope of work, HIV/AIDS care, pre-ART and ART follow-up, TB/HIV integration, and the challenges associated with providing ART services. Also presented are the baseline measurements, like the demographics and other key indicators (e.g., CD4 counts and weight) and follow-up information about ART, TB, and patient retention. Documentation practices by the facilities are also presented to show how the facilities keep and use patient information for informed decision-making.

A. Facilities' Scope of Work

Services provided at the PFPs included the key components of MoH comprehensive HIV/AIDS care (MoH 2003): HIV/AIDS care and ART services, prevention of opportunistic and other infections, and psychosocial services. For the HIV/AIDS care core services, all the sites offered voluntary counselling and testing (VCT) and adult ART, while 15 (50%) offered paediatric ART and 18 (60%) offered PMTCT. More than half offered TB services with HIV testing for TB patients (23 facilities) and TB screening for HIV patients (27 facilities) as recommended by the MoH (2006). For HIV/AIDS and ART clinical care, all the facilities offered prevention, treatment of opportunistic infections (OIs); nearly all (29) offered World Health Organisation (WHO) staging for ART initiation. Ten facilities (33%) offered CD4 count testing, and four (13%) offered viral load testing. Assessing the provision of psychosocial care revealed that all 30 facilities offered ongoing counselling on adherence; and 29 offered education on positive living and HIV/AIDS knowledge sharing with patients. Other services included legal support, orphaned and vulnerable children (OVC) support, nutrition support, support for income generation activities, and support groups, as indicated in Table 1.

Table 1: Services offered, stratified in four clusters

Service offered	Number of sites (percentage)
HIV/AIDS care core services	
VCT	30 (100)
PMTCT	18 (60)
Adult ART	30 (100)
Paediatric ART	15 (50)
HIV testing for TB patients	23 (77)
TB screening for HIV patients	27 (90)
Clinical care in HIV/AIDS care core services	
CD4 testing	10 (33)
WHO staging	29 (97)
Cotrimoxazole	30 (100)
Opportunistic infection diagnosis	30 (100)
Viral load testing	4 (13.3)
Psychosocial care and other services	
Support group	7 (23.3)
Ongoing counselling	30 (100)
Support for orphans and vulnerable children	5 (16.7)
Income support	6 (20)
Nutrition	10 (33)
Legal support	2 (6.7)
Education on HIV	29 (97)
Prevention of OIs and other infections	
Condoms	17 (56.7)
Family testing	25 (83.3)
Water safety	9 (30)
Insecticide-treated bed net	7 (23.3)

B. Processes Observed

1. Working Hours

The assessment established that almost half the facilities (13) are open seven days a week. This implies considerable access to HIV/AIDS care services from PFPs, supplementing the care provided by government facilities and non-governmental organisations. Seven PFPs are open all five working days (Monday–Friday), and 10 are open for less than five days a week. Facilities that are open fewer days are up-country and have a relatively small catchment population (Figure 1).

2. Documentation

Documentation practices in PFPs are poor. The assessment was designed to review 1500 records, but limited documentation meant that only 371 records could be reviewed. Poor documentation can result in poor care quality; since much this report is based on available documents, actual care may be worse than indicated here.

Figure 1: Days when facilities provide HIV/AIDS services

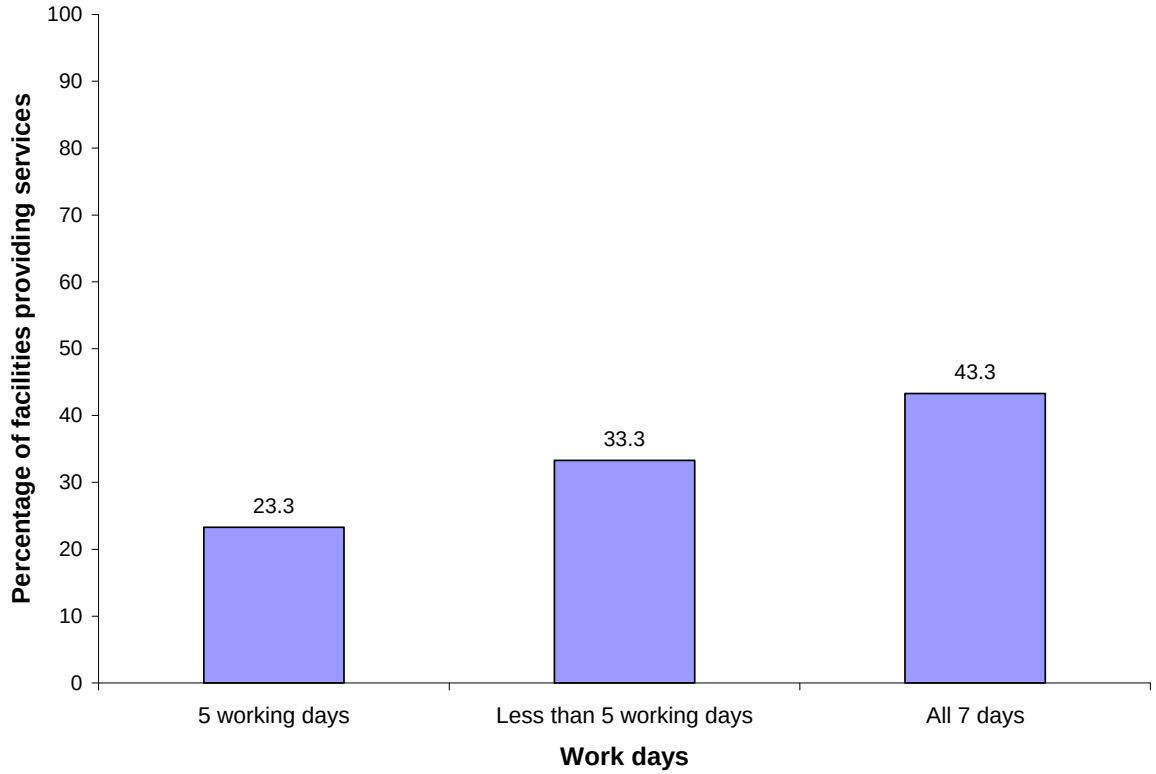


Table 2 shows that more than a half the retrieved pre-ART and ART records included an MoH ART care card. The survey did not determine whether these cards were used properly and fully completed.

Table 2: Use of the Ministry of Health HIV/AIDS care/ART card in facilities

Records availability	Number (%)
MoH ART card used	213 (57.4)
MoH ART card not used	158 (42.6)
Total	371(100)

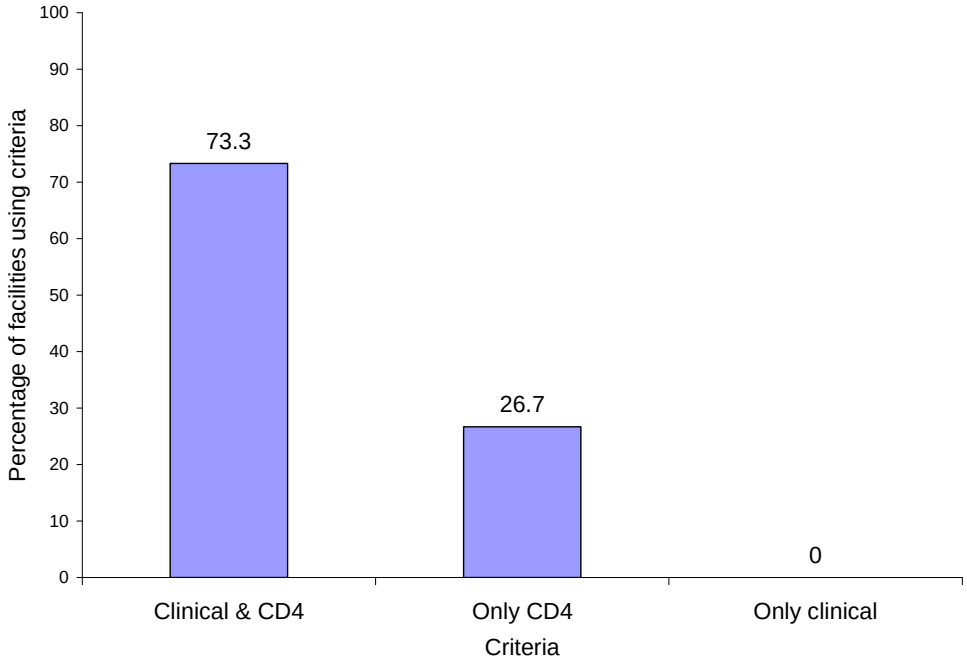
C. ART Service Provision

Twenty-eight facilities (93%) were giving the correct first line regimen of ART: Stavudine/Lamivudine (D4T/3TC) + Nevirapine (NVP) or D4T/3TC + Efavirenz (EFV). These were the Ministry of Health-recommended regimens at the time of the assessment, and all were procured from the MoH through the Supply Chain Management System (SCMS). (The MoH subsequently changed its policy and D4T/3TC + NVP is no longer the recommended first line regimen.)

1. Criteria for ART Initiation

Before a patient is initiated on ART, he/she should meet WHO and MoH criteria for ART initiation of either clinical assessment or laboratory (CD4/TLC) results. According to MoH guidelines (2003), the CD4 count criterion is a CD4 count less than or equal to 250 cells/mm^3. A patient in Clinical Stage 3 or 4 should also be initiated on ART. All the facilities used at least the CD4 count to initiate a patient on ART: 22 (73%) also used clinical assessment, and only eight (27%) used only CD4 count. No facility used only clinical assessment to initiate a patient (Figure 2).

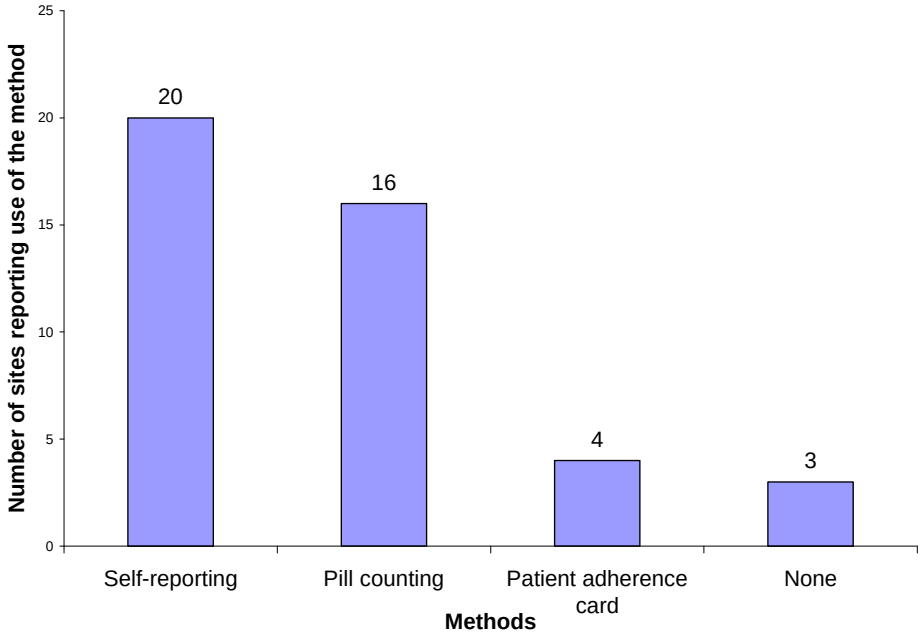
Figure 2: Criteria used to initiate ART as reported by facility key informants



2. Monitoring Adherence to Therapy

Patient adherence to the drug regimen is critical for successful ART. Patients are expected to adhere from the moment of enrolment on care, but many need support in doing so. To assess patient adherence to drug regimens, two-thirds (67%) of the assessed facilities reported that they used self-reporting, 53% used pill counts, some used both, and two had no mechanism for doing so. Half of the facilities used only one method to monitor adherence, and 13 had more than one method (Figure 3). Only four sites (13%) used a patient adherence card, which can be used to monitor a patient's drug-swallowing habits by checking the times he/she takes the drugs.

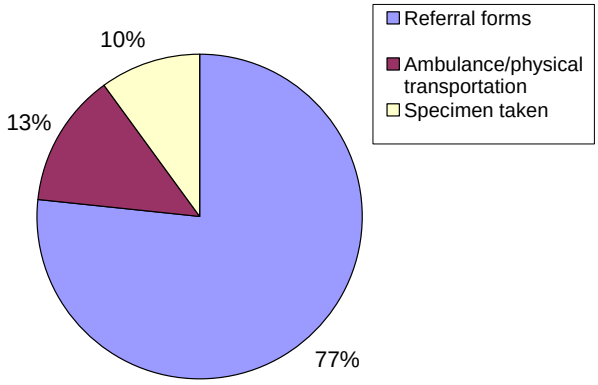
Figure 3: Methods used by sites to monitor adherence to antiretroviral therapy



3. Referral Network

Sites that do not offer some services had a referral system. Most (77%) used self-designed referral forms, while the rest reported providing an ambulance/physical transportation (13%) and taking specimens after blood had been drawn from the patients (10%), as shown in Figure 4.

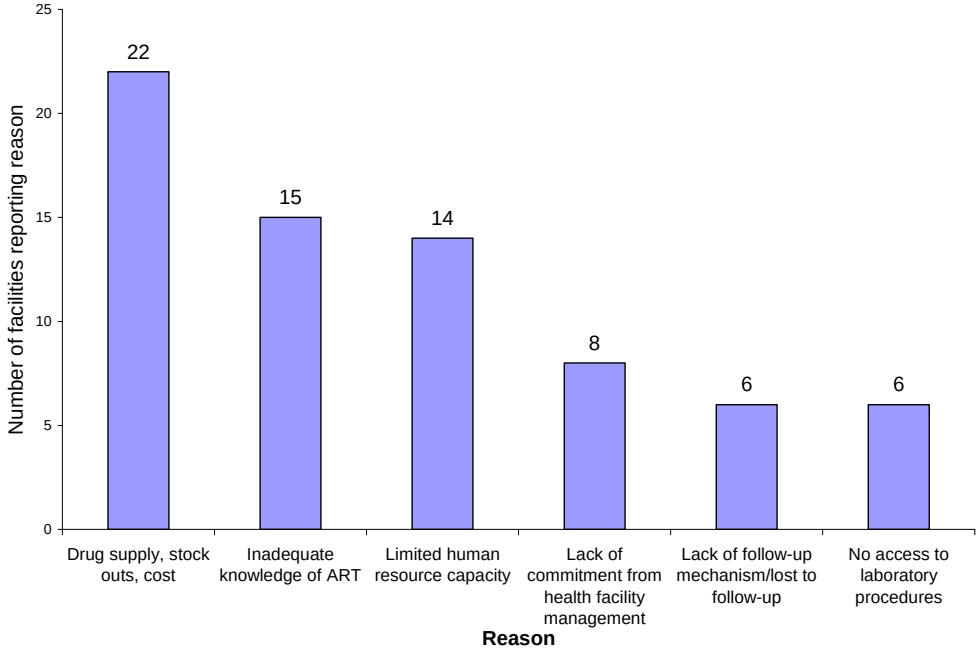
Figure 4: Methods for referring patients to other facilities, percentage of sites reporting method



D. General Challenges of ART Service Provision

Provider interviews revealed the main challenges facilities faced in providing ART services (Figure 5). Inadequate drug supply, stock-outs, and high drug costs were reported as challenges by 22 sites (73%), inadequate knowledge of ART was mentioned by 15 (50%), and limited human resource capacity to deliver the ART programme effectively was reported by 14 (47%). Lack of commitment from management, lack of follow-up mechanisms, high rate of patient loss to follow-up, and inaccessibility of laboratory services were the other challenges reported.

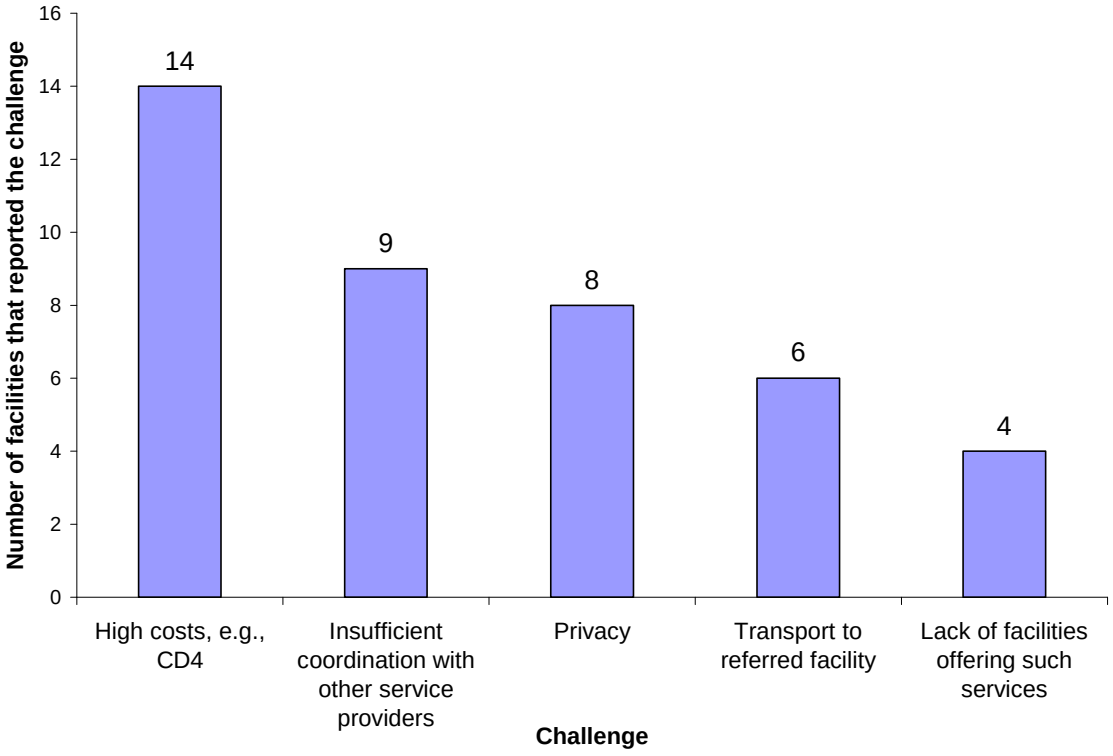
Figure 5: Most common challenges faced by facilities in providing ART services



1. Challenges Associated with Referrals

The PFPs reported several challenges regarding referring patients to other services centres. Figure 6 shows that the most common challenge was the high cost of services, mentioned by 14 facilities (34%). High service costs hinder referrals: Clinicians tend not to refer for required services patients clearly cannot afford. Insufficient coordination between service providers, both between departments in a single facility and between different facilities, was a challenge reported by 22%. Other challenges included concern that privacy would be compromised in the referral facility; lack of transport to the referral facility; and lack of facilities able to undertake the needed work, e.g., lack of CD4 count equipment. Half of the facilities assessed mentioned only one of these challenges; 40% reported more than one; and only three reported no challenge.

Figure 6: Challenges faced by facilities in referring patients to other service providers



2. Challenges Associated with Missed Visits and Loss to Follow-up

Many facilities providing HIV/AIDS care programmes face a challenge of missed visits. Providers gave several reasons that they felt contributed to missed visits and the high rate of loss to follow-up. Figure 7 shows that the five most common reasons providers mentioned were: travelling to up-country, transfers, and deployments (reported by 17 sites); transport difficulties and cost (12 sites); forgetfulness or busy schedule (eight sites); sickness/illness and being too weak for the hospital journey (seven sites); and attending other clinics or transfers-out (six sites). Two-thirds (67%) of the facilities gave more than one reason; six (20%) gave only one reason, while only four sites recorded no reason. The other reasons were side effects from ARVs, high drug costs, drop-outs, and insecurity on the roads.

3. Interventions Employed by Facilities

Most (90%) facilities have established at least one intervention in their ART program aimed at reducing missed visits and patient loss to follow-up. Figure 8 shows that most (18) emphasised counselling aimed at encouraging patients to keep appointments. Other interventions included giving patients sufficient drugs to last two months (nine sites) and calling (seven sites) to remind patients about appointments.

Other interventions were to encourage patients to send a treatment supporter if necessary, transferring patients to health centres closer to home to save transport costs, and organising home visits by service providers.

Figure 7: Providers' beliefs of why patients miss their appointments

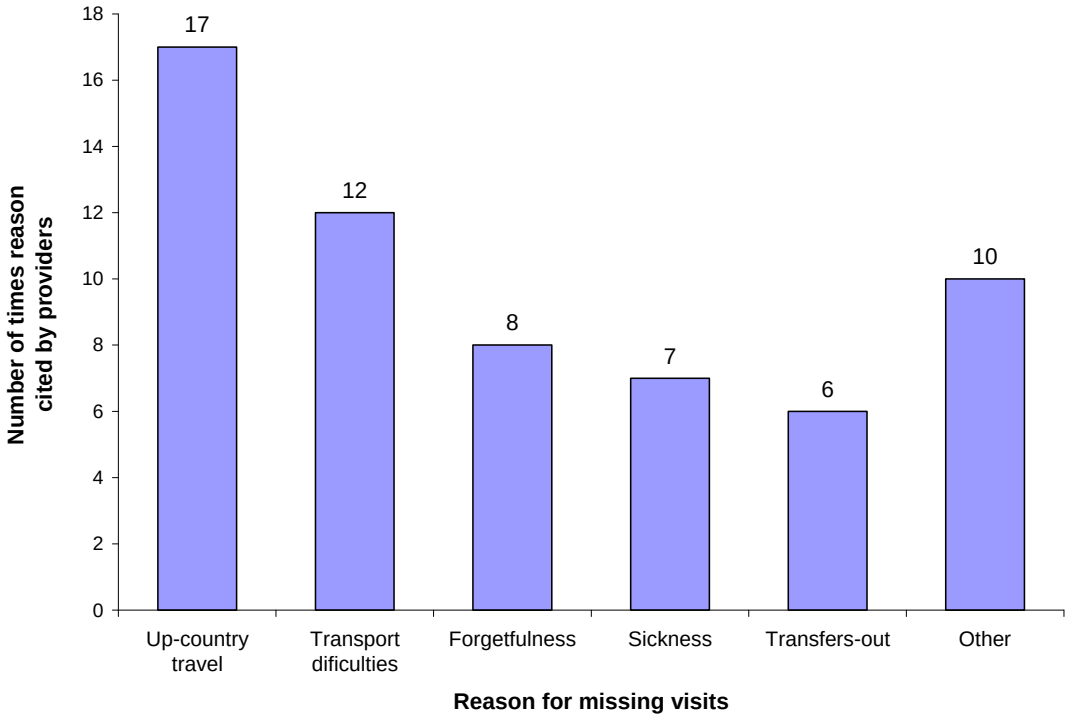
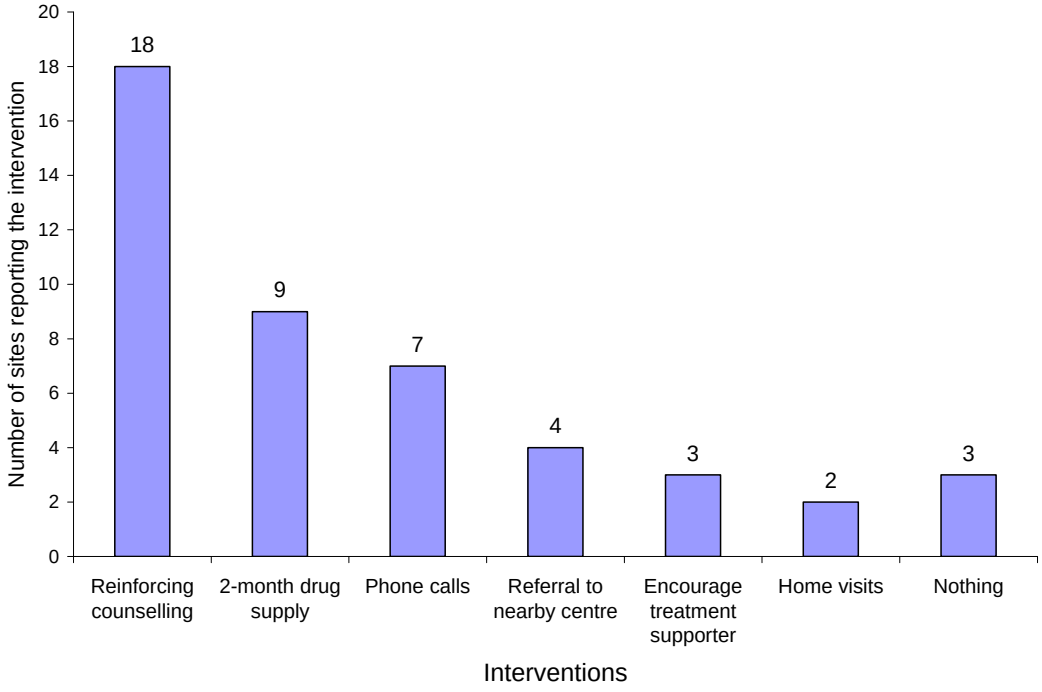


Figure 8: Interventions reported by facilities for reducing missed visits and lost to follow-up

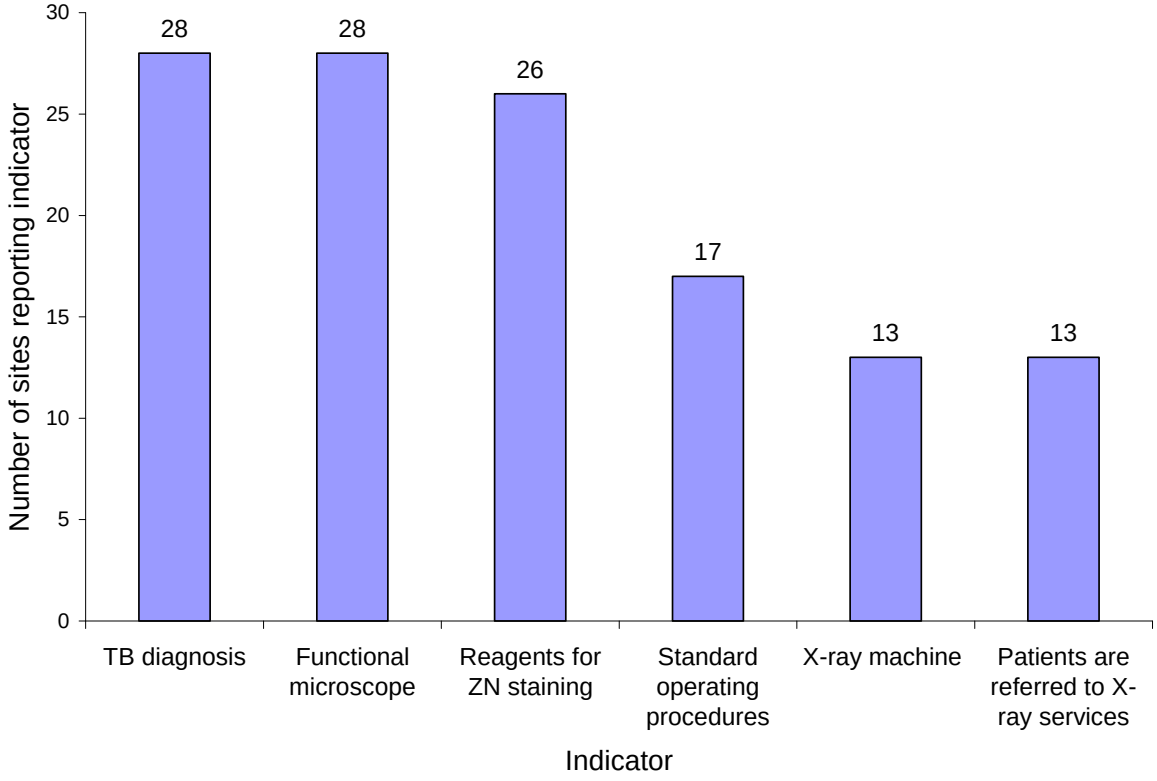


Comparing providers' beliefs of the reasons for missed appointments and the interventions PFPs had devised to reduce those misses resulted in an important finding: Little relationship exists between the causes and the interventions/solutions. Of the 26 facilities that had established at least one intervention in their ART programme aimed at reducing missed visits and patients lost to follow-up (Figure 8), 18 sites emphasised counselling to encourage patients to keep appointments; however, the most common reasons for missing appointments related to distance and transport (Figure 7). It is doubtful that additional counselling and reminders would be effective in reducing missed appointments.

E. Tuberculosis Service Provision

The assessment found that 77% of the sites tested TB patients for HIV, and 90% provided TB screening for HIV patients, as shown in Table 1. Further assessment revealed that 28 facilities (93%) performed TB laboratory diagnosis and had a functional microscope; 26 (87%) had reagents for Ziehl-Neelsen (ZN) staining, and 17 (57%) had standard operating procedures for TB testing and management in their laboratories (Figure 9). The assessment also established that 13 facilities (43%) had an X-ray machine, 13 (43%) had a mechanism for referring patients to X-ray services, and four had neither. The assessment did not determine whether referrals were always successful.

Figure 9: Facility capacity to provide TB services



F. Results of Record Review

1. Pre-ART Cohort

The assessment retrospectively reviewed medical records of 117 patients in the pre-ART cohort. These patients registered for HIV/AIDS care in June 2007 or slightly earlier and did not require ART for at least the first three months thereafter. Table 3 shows that males constituted only a third (33%), indicating that men were generally underrepresented. The median age was 34 years (range: 2–57), also implying that younger and older people were underrepresented. These records showed that 57 (49%)

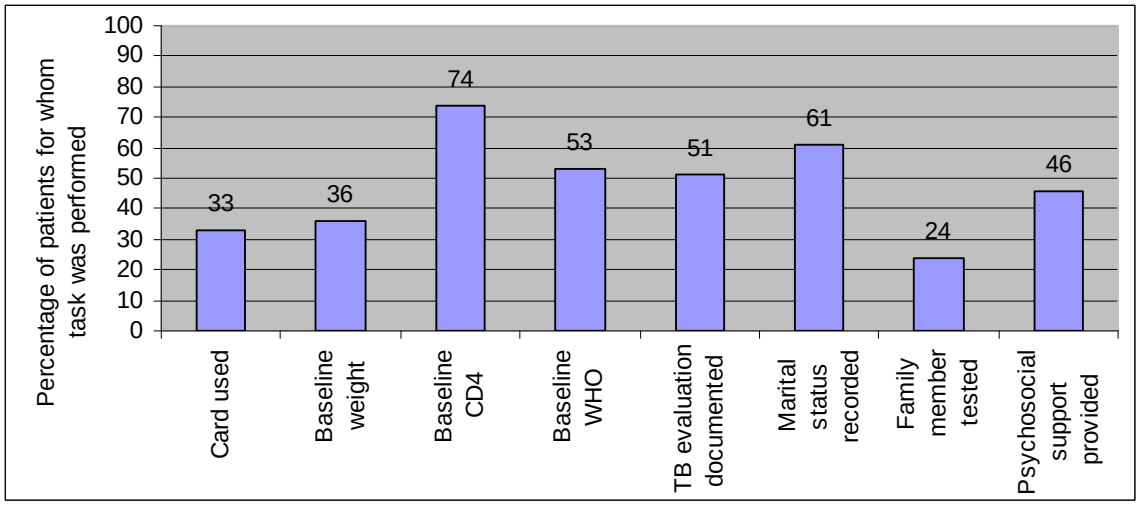
were using the MoH HIV/AIDS care cards. Partners or family members of a quarter (24%) of the patients had been tested for HIV. Fifty-four patients (46.2%) received psychosocial support, which includes post-test counselling, at some point in the year following registration. Marital status was recorded for 71 (61%) patients, with half of them married. Baseline weight was measured for 42 (36%) patients, 86 patients (74%) had their baseline CD4 count measured, and 60 (51%) were evaluated for TB. Retention was problematical: 32% of patients were not seen after one month, 39% were not seen after three months, and 46% were lost to follow-up by six months.

Table 3: Pre-ART data from medical records

	Number responding (%)	Median (range)
Number assessed	117	
WHO card used	57 (48.7)	
Male	39 (33.3)	
Age		34 (2–57)
Marital status recorded	71 (61)	
Family member tested	28 (24)	
Psychosocial support provided	54 (46.2)	
Number of visits in first 12 months		4 (0–19)
Baseline weight, in kilograms	42 (36)	62.5 (10–139)
Baseline CD4	86 (74)	297.5 (0.23–1897)
Baseline WHO	62 (53)	
CD4 in second six months recorded	38 (60.3)	316 (3–1845)
WHO in second six months recorded	26 (41.3)	
CD4 recorded in each six-month period	37 (32)	
WHO recorded in each six-month period	23 (19.6)	
CD4 and WHO in each period	19 (16.2)	
Number of months multi-vitamin given		1 (0–10)
Number of months Cotrimoxazole given		2 (0–12)
Became eligible for ART in second six months by CD4	24 (21)	
CD4-eligible clients who started ART	5	
Became eligible for ART in second six months by WHO	13 (11)	
WHO-eligible clients who started ART	4	
TB evaluation done	60 (51.3)	
Received condom	2 (1.7)	
Received family planning (women)	4 (5.1)	
Received ART education	27 (23.1)	
Days between first and last visit		98 (0–365)
Not seen after one month	37 (31.6)	
Not seen after three months	45 (38.5)	
Not seen after six months	54 (46.2)	

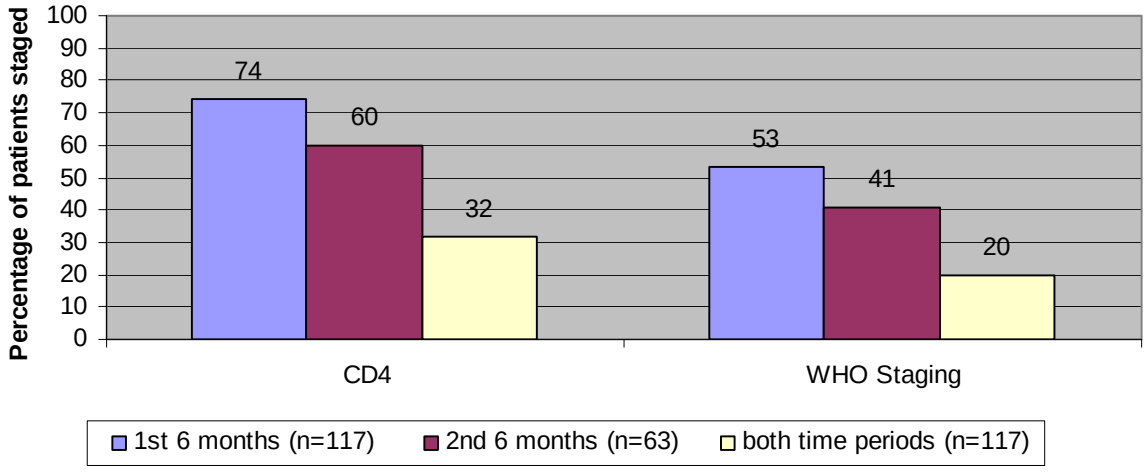
Figure 10 shows provider adherence with MoH standards at initial visits: Adherence to clinical care guidelines tended to be higher than adherence to psychosocial care guidelines.

Figure 10: Adherence to MoH pre-ART guidelines at initial visits



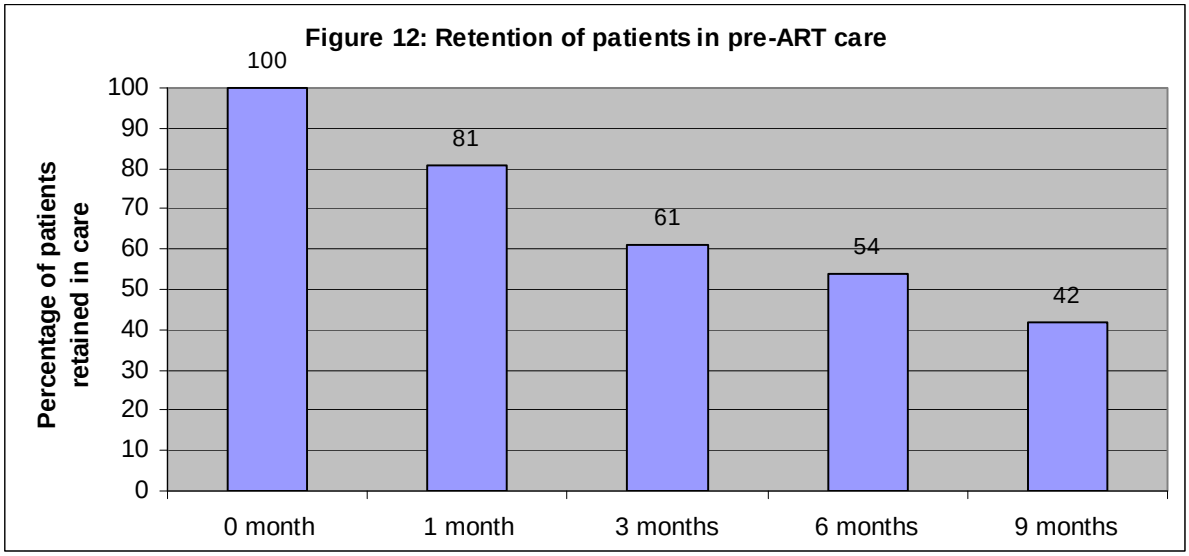
After the initial pre-ART visit, patients returned to the clinic a median of four times over the next 12 months, well short of the MoH recommendation of monthly follow-up visits and drug re-fills. The Ministry also recommends that a patient be clinically staged every time he/she comes to the facility and have a CD4 done at least once every six months. Thirty-eight patients (60%) who had a visit in the second six-month period had a CD4 count test then, with a median of 316 cells/mm^3, and 26 (41%) had their WHO stage recorded. Monitoring CD4 fell from 74% in the first six months to 60% in the second six months, and WHO staging fell from 53% to 41% from the first to the second six months. Figure 11 shows that adherence with standards decreased from the first to the second six months: Only 37 patients (32%) had their CD4 counts recorded in both six-month time periods, and only 23 (20%) had WHO staging done in both time periods. These falls may have been because as people stay in care longer, they stabilise, require less time with the clinician, and worry less about CD4 counts. In turn, clinicians may also loosen up on adherence to MoH standards.

Figure 11: CD4 and WHO assessment rates in the first year of pre-ART care



Indicating further decline in adherence to guidelines over time, 24 pre-ART patients (21%) became eligible for ART in their second six months of care based on CD4 count, but only five of them started ART. Another 13 (11%) became eligible in that period by WHO staging, but only four of them started ART. This means that even when eligible for ART, many patients may not be initiated on therapy. This assessment did not delve into possible reasons for this failure.

Patient retention also declined: One month after registering for pre-ART, 81% were still in care; after three months, only 61% remained; after six months, only 54% remained, and after nine months, only 42% (Figure 12).



2. ART Cohort

The records of 210 patients who had been on ART care for 12 months were assessed (Table 4). Nearly half (44%) were male, and the median age was 37 years. These records reported that 140 (67%) patients had received pre-ART education during their initial visits to the facility, and 124 (59%) had a treatment supporter. ART education covers drug regimens, drug interactions, and adherence counselling and is given before starting ARVs. Only 42 patients (20%) had home-based care provided by the facility, while 91% had contact-tracing information recorded.

Figure 13 shows data on provider adherence to MoH guidelines for ART patients at their initial visits.

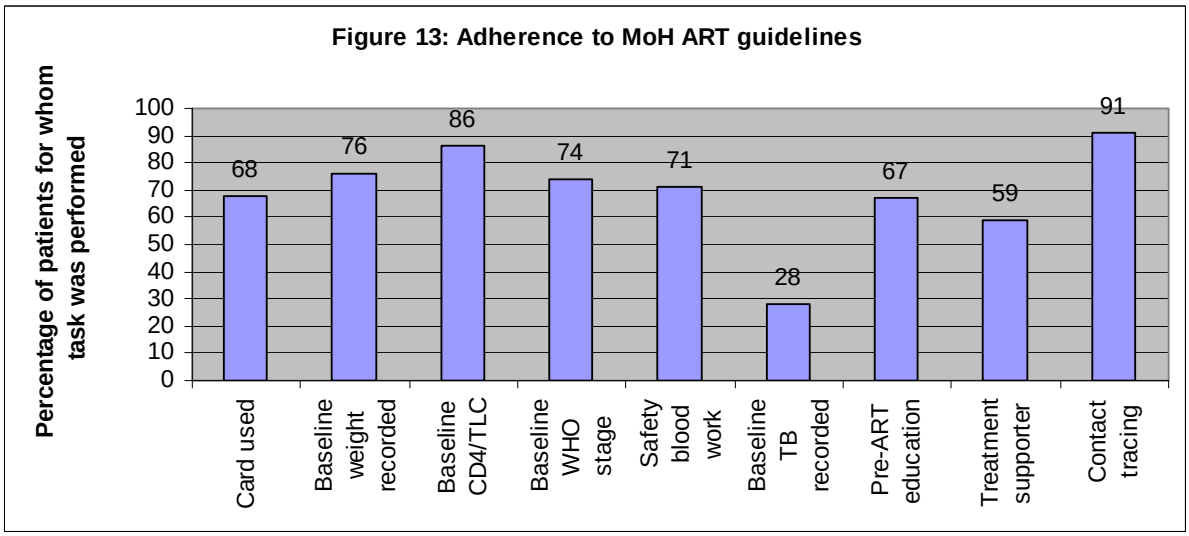


Table 4: Baseline data from ART records

	Number responding (%)	Median (range)
Total number	210	
Used card	143 (68.1)	
Male	92 (43.8)	
Age		37 (3–85)
Pre-ART education	140 (66.7)	
Treatment supporter	124 (59)	
Home-based care	42 (20)	
Contact tracing	192 (91)	
Clinical criteria met	11 (5.2)	
CD4 criteria met	169 (80.5)	
TLC criteria met	1 (0.5)	
Safety blood work	150 (71)	
Baseline TB recorded	60 (28)	
Baseline weight, in kilograms	159 (75.7)	59 (7–100)
Baseline CD4/TLC	181 (86.2)	134 (1–915)
WHO 1	22 (10)	
WHO 2	44 (21)	
WHO 3	68 (32)	
WHO 4	22 (10)	
FS working	51 (24)	
FS ambulant	6 (3)	
FS bedridden	2 (1)	
CD4 ≤ 50	36 (20)	
51 ≥ CD4 ≤ 100	34 (18.8)	
101 ≥ CD4 ≤ 250	99 (54.7)	
CD4 > 250	12 (6.6)	

FS = functional status; TLC = total lymphocyte count

Based on clinical criteria, 11 patients (5%) were initiated on ART; 180 (86%) met the CD4 criteria for initiation, and one met the total lymphocyte count criterion before initiation. Only 12 of the 180 patients eligible on the basis of CD4 criteria were initiated on ART. For 18 patients (9%), no indication of the criteria used was in the record (missing data), and for 54 (27%) there was no indication of baseline WHO clinical staging. Seventy percent of patients had their safety blood work tests (including haemoglobin, liver function, and renal function) done. Safety blood work determines a patient's physiological readiness to start ART. Baseline TB was recorded for 60 patients (28%). The median baseline weight was 59 kilograms (range: 7–100), and median baseline CD4 count was 134 cells/mm^3 (range: 1–915). Baseline WHO staging was: Stage I (10%), Stage II (21%), Stage III (32%), and Stage IV (10%). In terms of baseline functional status, the records indicated that 24% of patients could work/play, 3% were ambulatory, and 1% was bedridden; baseline functional status was not recorded for 72% of patients. At baseline, 14% of records had no indication of CD4 results. For those patients with CD4 results recorded, 20% had a CD4 count below 50 cells/mm^3; 19% had a CD4 count between 51 and 100 cells/mm^3; 55% had a CD4 count above 100 cells/mm^3 but below 251 cells/mm^3; and 7% had a CD4 count above 250 cells/mm^3.

3. Follow-up for ART Cohort Patients

The patients in the ART cohort were followed up for a maximum of 12 months. Characteristics of the study sample are in Table 5. Patients remained in follow-up for a median of 219 days (just over seven months) between the first and last visit covered by the assessment. During this period, patients had a median of six visits. According to the records, patients had their weight recorded a median of three times, while adherence was recorded once. TB status was recorded a median of three times. These low median values are partly due to poor retention and missed visits and partly to poor record keeping. We do not know whether some assessments were performed but not recorded.

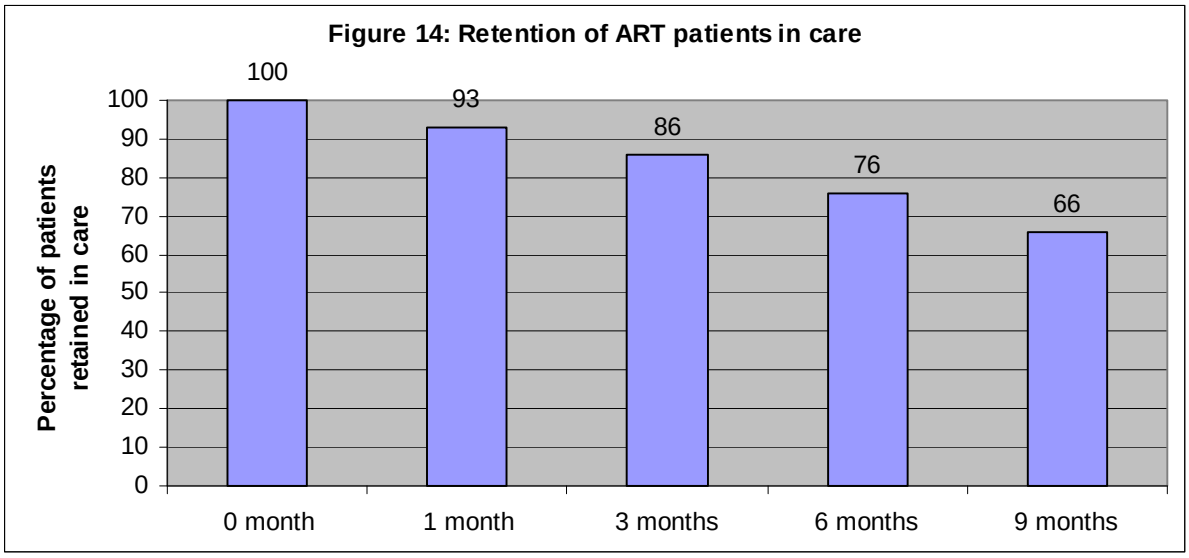
Table 5: Follow-up data from reviewed patients' medical records

	Number responding (%)	Median (range)
Second CD4 recorded	84 (52.8)*	
CD4 recorded every six months	75 (35.7)**	
Number of visits		6 (0–22)
Number of months seen		7 (0–12)
Months weight recorded		3 (0–12)
Months adherence recorded		1 (0–12)
Month TB status indicated		3 (0–12)
Days between first and last visit		219 (0–365)
Not seen after first month	16 (7.6)	
Not seen after first three months	30 (14.3)	
Not seen after first six months	51 (24.3)	
Not seen after first nine months	72 (34.3)	
CD4 at last visit		173(0.03–915)
CD4 change since baseline		114 (–146 to 658)
Weight at last visit, in kilograms		65 (10–101)
Weight change since baseline		4 (–11 to 68)
New regimen	9 (4.3)	
Second regimen change	0	

* Denominator is 159: patients still in care after the first six months.

** Denominator is 210: all ART patients initially in care.

Figure 14 shows retention of ART patients in care: 93% of patients were still in care for more than one month after initiating therapy, 86% after three months, 76% after six months, and 66% more than nine months after starting ART. Since only about half (53%) of those still in care after six months had their CD4 count recorded, just over a third (36%) of all ART patients initially in care had CD4 counts recorded in both six-month periods. The median increase in the CD4 counts since baseline was 114 cells/mm^3, with one patient losing 146 cells/mm^3 and another gaining 658 cells/mm^3. The median increase in weight was 4 kilograms (range: -11 to 68 kologrames). Nine patients (4%) changed regimens during the course of treatment, Zidovudine (AZT) + 3TC + EFV, AZT + 3TC + NVP, or EFV + 3TC + D4T. These changes were still within the MoH-recommended first line regimens. Reasons for such change were either toxicity of the initial regimen or MoH's new policy of phasing out D4T-containing regimens. No patient switched to a second line regimen.



IV. DISCUSSION

The distribution of the 30 facilities surveyed was skewed, with most (67%) in Kampala. This is attributed to the high population density in Kampala and the city's relatively better economic status, which makes private business more viable.

A. Findings Regarding Scope of Work

Strengths

- PFPs are open and operational throughout the week, making access to medical care more available to clients
- Patients receive free ARVs, all procured from the MoH National Medical Stores (NMS) through the SCMS Project.

Weaknesses

- Facilities are not offering the full range of clinical services needed to provide quality HIV care: Only 23% offer the full range of HIV/AIDS care services.
- Most sites lack paediatric ART and PMTCT services due to limited technical skills among the staff, since PFPs cannot afford to continuously train and update staff in these areas.
- Patients pay for all laboratory services. Expensive lab services, including CD4 and viral load testing services (especially repeat CD4s), are not readily affordable to patients. The equipment and reagents are costly to providers, causing them to transfer high costs to patients. Patients who can't afford the services are referred to other service providers, but no one ensures that these patients receive the required service(s).
- The quality of TB services and the safety of laboratory rooms are unsatisfactory. Half the facilities did not have standard operating procedures on TB management; they lack X-ray machines and mechanisms for referring patients for X-ray services. Most facilities did not have proper laboratory premises designed for the purpose.

B. Findings Regarding Quality of HIV/AIDS and ART Services

Strengths

- PFPs follow MoH guidelines and policies in providing HIV/AIDS and ART services;
- Most PFPs provide standard first line regimens and initiate patients based on either CD4 or clinical staging criteria;
- 93% of patients initiated on ART received the MoH-recommended first line therapy;
- 93% of facilities had mechanisms to measure patient adherence; and
- Some technical standards were well adhered to: 74% of pre-ART and 86% of ART patients received CD4 testing at the first visit.

Weaknesses

- Documentation of services/care provided to patients, especially on follow-up visits, is limited: Less than 50% of pre-ART patients had WHO/MoH care cards.
- Adherence with standards declines over time: Only 32% of pre-ART patients received a CD4 test in both time periods examined in this study.
- Only a fifth of patients identified as needing treatment in the second six months was initiated on antiretroviral therapy.
- Adherence with psychosocial standards was poor, as was documentation of psychosocial services. Only 24% of patients had a family member tested, and only 46% of pre-ART patients had documented evidence of psychosocial support.
- Patient loss to follow-up is high in these facilities. Two general causes for this problem were identified: Facilities lack mechanisms for following up with patients who do not return for care, and patients miss appointments when they travel away from home or cannot afford transport to the health facilities.
- Retention of pre-ART patients is especially poor.
- Most patients had insufficient prescriptions of Cotrimoxazole.
- Challenges to ART provision largely involve inadequate drug supplies, including stock-outs. This happens when NMS sends incomplete dosages to facilities because it lacks sufficient quantities.

C. Opportunities and Challenges Facing PFPs in Providing HIV Care and ART Services

Opportunities

- The private sector has developed systems to care for patients with HIV, expanding the available options for patients and providing a base on which improvements can be made.
- Adherence with standards at first visit is good, indicating staff capacity to provide good care.
- Examples abound of efforts that different PFPs have made to improve care, including: use of self-designed referral forms to link patients with care outside the facility, the use of patient adherence cards, and system changes to accommodate patients unable to make monthly visits (e.g., providing two months of ARVs when necessary).

Challenges

- Limited human resource capacity at facilities and inadequate knowledge of HIV/AIDS and ART affect service quality. Having few skilled health workers caring for a large number of patients compromises the quality of care.
- Difficulties retaining patients in care is of particular concern, both for the patients and the public at large.

V. RECOMMENDATIONS

Like many other health systems worldwide, Uganda's PFP sub-sector was designed to provide care to the acutely ill. Fairly high provider adherence to clinical standards at the first visit suggests that the system does well at what it was designed to do: care for patients at the clinic. PFPs, however, are not prepared to manage patients with chronic diseases, as is reflected in poor patient retention, decreasing adherence with standards over several months of care, and weak links with the community.

Based on years of experience in improving the quality of care in developing country health systems, we have three recommendations to improve the quality of HIV/AIDS care in PFP facilities:

1) Regularly measure quality: Facilities should be supported to regularly measure and report on indicators of patient retention, adherence with standards, and patient outcomes. Such records will guide decision makers in improving quality

2) Adapt and incorporate elements of the chronic care model: Adapting to the increased prevalence of chronic diseases poses a major challenge to health systems worldwide. With the arrival of ART, HIV became a chronic disease requiring emphasis on retaining patients in care over the long term and providing support for them at home and in their community. The chronic care model developed by the (United States) University of Washington for chronic disease care could be adapted for Uganda. The model has five components: patient self-management, the use of multi-disciplinary teams to provide health care and to support patients, support for the less trained members of the team, information systems for long-term care, and links with the community. Improvements in each of these components would likely improve the quality of care. Because patients spend less than an hour a month receiving care and the balance at home, they need additional support to understand how to care for themselves. This support would be best provided by expert clients or HIV counsellors or other non-traditional health cadres. Using a multi-disciplinary team that includes these providers would allow doctors and nurses to focus on the acutely ill or more complicated cases. Systems to support the non-traditional health cadres will be important.

Another important component of the chronic care model will be the use of information systems for long-term care, including a recorded medical history. The MoH ART card is a good system, and PFPs should be encouraged and supported to use it. Also important in the chronic care model is developing links with the community. Patients need support in the community and referral systems between the clinic and the community that help ensure they receive and stay in needed care.

3) Establish and support quality improvement teams at a site level to make these changes: Making changes to improve chronic care will not be easy. We recommend that the Ministry of Health and its partners establish mechanisms to ensure that PFP health workers are trained in using data to improve care and in quality improvement techniques. The design of such mechanisms should incorporate supportive supervision visits that expose PFPs to the MoH guidelines and to the chronic care model so that PFPs can redesign their care systems to be better adapted to the unique challenges of chronic diseases such as HIV.

VI. REFERENCES

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VII. ANNEXES

Forms have been modified to reduce the number of pages.

ANNEX 1: Pre-ART Cohort Form

Name of Health Facility_____ Type of Facility_____

Name of Reviewer_____ Date of Review_____

Patient ID					
Card used					
Date of first visit					
Age					
Gender					
Marital status					
Family member tested					
Care entry point					
Psychosocial support					
# visits in first 12 months					
Baseline weight	/	/	/	/	/
CD4/TLC result months 0–6	/	/	/	/	/
CD4/TLC result months 7–12	/	/	/	/	/
WHO stage months 0–6	/	/	/	/	/
WHO stage months 7–12	/	/	/	/	/
Multi-vitamin Rx (M given)					
Cotrimoxazole Rx (M)					
TB evaluation					
Received condoms					
Women receiving FP					
Date eligibility for ART					
Received ART education					
Date received ART					
Last visit date					
Last recorded weight	/	/	/	/	/
Alive in care on ART					
Alive in care, no ART					
Dead					
Transferred					
Unknown					

ANNEX 2: ART Care Cohort Form

Name of Health Facility_____ Type of Facility_____

Name of Reviewer_____ Date of Review_____

Patient ID					
Card used					
Date meet MoH criteria					
Criteria met					
Age					
Gender					
Pre-ART education					
Treatment supporter					
Home-based care					
Contact tracing recorded					
Initial regimen					
Date of initiation					
Baseline WHO	/	/	/	/	/
Baseline function	/	/	/	/	/
Baseline weight	/	/	/	/	/
Baseline OI					
Baseline TB					
Baseline CD4/TLC					
Number of visits					
Number of months seen					
Number of CD4/TLC					
# visits weight recorded					
# visits adherence measured					
# visits TB status checked					
Safety blood work					
Last visit date					
Status at 12 months					
Last FS/month					
Last weight/month					
Last side effects/month					
Last OI/month					
Last CD4/TLC/month					
Date of regimen change					
New regimen					
Reason for change					
Date of second regimen change					
New regimen					
Reason for second change					

ANNEX 3: Facility Key Informant Interview Form

1.0 General Information

Name of Health Facility _____ Type of Facility_____

Health Sub-district _____ District _____

Names of Reviewers _____ Dates of Review _____

Table 1: Health facility information

Population in catchment area:	Number of beds:

Human resources training

	Total		HIV counselling	TB/HIV	TB DOTS	PMTCT	Comprehensive HIV/AIDS care	ART	Health data management	HIV lab procedures	
	FT	PT								Rapid test	DNA PCR
Medical doctors											
Clinical officers											
Nurses											
Midwives											
Nursing assistants											
Pharmacists											
Pharmacy technicians											
Laboratory technologists /technicians											
Laboratory assistants											
HIV counsellors											
Data mgt staff											
Others: (specify)											

Note: Training should be at least five days.
FT means full-time staff; PT means part-time staff; HIV must counsellors have been specifically trained as counsellors; TB-DOTS means directly observed treatment, short course for TB.

Table 2: ART programme information

Date patient started on programme				
	F ≥ 15 yr	M ≥ 15 yr	F 0-14 yr	M 0-14 yr
Number ever started on treatment by end of May 08				
Number who received ART last month				
Number lost to follow-up since ART initiation				
Number confirmed dead since ART initiation				

F ≥ 15 yr means female 15 years old or older; M ≥ 15 yr means male 15 years old or older; F 0-14 yr means female under 15 years; and M 0-14 yr means male under 15 years.

Table 3: Days ART programme operational and staffed in the past week

	Mon	Tues	Wed	Thur	Fri	Sat	Sun
Open							
# Medical doctors							
# Clinical officers							
# Nurses							
# Counsellors							
# Lab staff							
Other staff							
# Pre-ART patients							
# ART patients							

1.1 What is the distance to the nearest facility offering ART (in kms)?

1.2 What ARV drug regimens are prescribed at this facility? (Please list the drug regimens)

First line regimens:

Second line regimens:

Other regimens:

1.3 What are the sources of your ARVs, and how do you procure them?

1.4 What challenges exist regarding ART provision (human resources, logistics, technical skill, etc.)?

2.0 HIV Care and Treatment

Table 4: Services offered

Are these services offered to clients?	YES, this service is offered here (Check)	Patients are referred to outside agency for these services (Write agency name/s)	NO, patients are not referred or provider cannot provide the name of the agency (Write "no" or "no name")
VCT			
PICT (RCT)			
PMTCT			
DNA PCR			
CD4 testing			
Adult ART			
Paediatric ART			
Post-test counselling			
Home-based care			

Are these services offered to clients?	YES, this service is offered here (Check)	Patients are referred to outside agency for these services (Write agency name/s)	NO, patients are not referred or provider cannot provide the name of the agency (Write "no" or "no name")
Support group			
Ongoing counselling			
OVC support			
Income support			
Legal services			
Education on HIV			
TLC screening			
WHO staging			
Cotrimoxazole			
Family testing			
Condoms			
Other prevention activities			
Nutrition support			
Multivitamins			
Insecticide-treated bed nets			
Water safety, e.g., provision of Water Guard			
Pain management			
OI diagnosis			
OI prophylaxis (beyond Cotrimoxazole)			
Antenatal care			
Delivery			
DNA PCR for early infant diagnosis			
Viral load			
Child counselling			
HIV test for all TB patients			
TB screening for HIV patients			
TB-DOTS			
Immunizations			
Other			

*PICT = provider initiated counselling and testing; RCT = routine counselling and testing; RTC = routine testing and counselling; DNA PCR = deoxyribonucleic and polymerase chain reaction

2.1 How are people linked with the services they require? Discuss methods to link people to these services (e.g., referral forms, phone calls, case managers) and how information is transferred between service providers.

3.0 Pre-ART Care

3.1 How often do you ask pre-ART patients to come for follow-up?

3.2 Who provides HIV counselling and education to pre-ART patients (check all that apply)?

1. Medical officer ☐
2. Clinical officer ☐
3. Nurse ☐
4. Other (specify) ☐

3.3 What guidelines are used to educate patients (Ask for a copy if available)?

4.0 Support Groups

4.1 How many patients are in support groups?

4.2 How are the patients linked to the support groups?

5.0 ART Assessment

5.1 What criteria do you use to initiate a patient on ART (check all that apply)?

Clinical ☐
CD4 ☐
Other (specify) ☐

5.2 How often are HIV patients assessed for ART eligibility?
Using clinical assessment:

Using CD4 count:

5.3 Who assesses them (check all that apply)?

Doctor ☐
Nurse ☐
Counsellor ☐
Other (specify) ☐

6.0 What are some of the **challenges** with linking patients with services they need?

7.0 What **improvements** would you recommend for linking HIV-positive people with the services they need?

8.0 PMTCT

8.1 What drug regimens do you use for PMTCT (please list them)?

8.2 Do women in PMTCT get referred to HIV/ART clinic? Yes [ ] No [ ] If yes, When?

8.3 How is this done?

Tell the woman to go to the HIV/ART unit	□
Send patient information to the HIV/ART clinic	□
Take the woman to the HIV/ART clinic	□
Both clinics are in the same place	□
Other (specify)	□

8.4 How are infants linked to PCR?

8.5 What are some of the challenges with making this link?

8.6 How are infants born to infected mothers linked to Cotrimoxazole prophylaxis initially and for repeat prescriptions?

8.7 Is there a post-natal clinic?

8.8 Do most women come back (ask to see figures, if possible)?

8.9 If not, why not?

-
-
-

8.10 How are mothers linked with infant feeding counselling and education?

8.11 What feeding guidelines do you use? Is there a copy available?

8.12 What information do you give mothers concerning infant feeding?

8.13 Are there any take home materials for mothers? Yes [ ] No [ ]

8.14 If yes, please describe:

8.15 Do you indicate on the child's health card whether the mother is infected with HIV?
Yes [ ] No [ ]

8.16 What proportion of cards is marked appropriately?

8.17 How do you reach infants who are born at home to provide following:

a) ARV prophylaxis

b) Cotrimoxazole

c) HIV testing

Table 5: Numbers for the previous month (previous one month data could be null for small facilities)

# mothers first ANC visit		# pregnant mothers assessed for ART eligibility	
# mothers tested		# infants born to HIV-positive mothers	
# mothers positive		# infants tested	
# mothers treated on ART		# infants on cotrimoxazole	
# of pregnant mothers enrolled in HIV care clinic		# infants positive	
# pregnant mothers on Cotrimoxazole		# infants assessed for ART	

9.0 TUBERCULOSIS

TB diagnostic capacity of the clinic

9.1 Do you diagnose TB here? Yes [ ] No [ ]
9.2 Does the facility have a functional microscope? Yes [ ] No [ ]
9.3 Does the facility have reagents for ZN staining? Yes [ ] No [ ]
9.4 Is the laboratory room safe for infection control (assess room size, ventilation, and waste management)? Yes [ ] No [ ]
9.5 Does the lab have standard operation procedures for TB? Yes [ ] No [ ]
9.6 Does the facility have an X-ray machine Yes [ ] No [ ]
9.7 If not, are patients linked to X-ray services? Yes [ ] No [ ]
9.8 How are patients referred to X-ray services?

Ability to treat TB

9.9 Do you treat TB patients here? Yes [ ] No [ ]

9.10 What drug regimens do you use for TB treatment (please list them)?

Adult initial treatment regimen:

Adult retreatment regimen:

Child initial treatment regimen:

Child retreatment regimen:

9.11 What is the source of the TB drugs?

9.12 Do you have TB treatment guidelines? Yes [ ] No [ ]

TB Monitoring and evaluation system

9.13 Do you have Ministry of Health TB registers? Yes [ ] No [ ]

If no, specify if have any other TB register.

9.14 Do you have guidelines for TB/HIV integration? Yes [ ] No [ ]

9.15 Are suspected or confirmed TB patients routinely counselled for HIV testing?

- Suspected Yes [ ] No [ ]
- Confirmed Yes [ ] No [ ]

9.16 Is HIV testing offered to patients with TB? Yes [ ] No [ ]

9.17 Are HIV-positive TB patients linked to HIV care for ART assessment?

Yes [ ] No [ ]

9.18 How does the system ensure that HIV-positive TB patients are linked to HIV care for ART assessment?

10.0 ART Programme Follow-up

10.1 After a patient is eligible for ART based on clinical, TLC, or CD4 criteria, what happens before he/she starts ART (check all that apply)?

a) They must come back with a treatment supporter
b) They must come for adherence counselling visits
How many times? _____
c) They must show regular adherence visits
d) They must have safety blood work
What tests?
e) Others (specify)_____
_____

10.2 What education do you provide prior to patients starting ART (specify area/topics covered)?

- -
- -
- -

10. 3 How are people educated (probe for who trains them, what job aids/materials are used, and number of visits)?

10.4 What are the steps in a typical follow up visit?

Please list all activities a patient experiences when he/she comes for follow up visits, which staff people they see, and where the activity takes place (e.g., registration, triage, clinical assessment, adherence assessment and counselling, lab investigation, pharmacy)		
Activity	Staff cadre responsible	Location

10.5 How do you assess a patient's adherence to therapy?

10.6 What do you do if a patient is having trouble adhering to therapy?
a) What do you tell the patient?
b) What resources do you have for the patient?

10.7 Do you have a system that lets you know if a patient misses a clinic visit?
Yes [ ] No [ ]

10.8 If yes, please describe.

10.9 What do you do if you find a patient misses a clinic visit?

10.10 Please describe the links your ART programme has with community groups?

10.11 What could be the reasons leading to clients missing their appointment dates? Please list all possible reasons.

10.12 What does your ART programme do to reduce missed visits and patient loss to follow-up?

10.13 What other strategies do you think would help improve patient follow up?

11. DISPENSING AND STORAGE FACILITIES

Availability of appropriate dispensing / storage facilities

Storage Facilities

11.1 Does the facility have adequate space for the orderly placement/storage of drugs? [ ] Yes [ ] No

11.2 Does the facility possess a cold storage facility (e.g., refrigerator)? [ ] Yes [ ] No

11.3 Is there physical barrier between expired and non expired drugs? [ ] Yes [ ] No

11.4 Are the drugs stored on shelves or racks, off the floor/walls? [ ] Yes [ ] No

11.5 Are drugs stored according to the manufacturer's specifications? [ ] Yes [ ] No

11.6 Does the stock card provide the following information (check in row below)?

Date	Supplier source	Amount received	Amount issued	Bal.	Amount expired/ damaged	Max. stock	Min. stock	Price	Expiry date

11.7 Is there adequate lighting /ventilation/ambient temperature in the stores? [ ] Yes [ ] No

Stock records system (assessing the record system in place).

11.8 Are stock/ledger cards used for issuing and receipt of drugs? [ ] Yes [ ] No

11.9 Do you use computer software for monitoring stock? [ ] Yes [ ] No

11.10 If not, what do you use to monitor stock?

:_____

11.11 Is there a system/procedure for issuing drugs? (e.g., FIFO/FEFO) [ ] Yes [ ] No

Dispensing facilities

11.12 Is the dispensing area clean, neat and orderly? [ ] Yes [ ] No

11.13 Is there a displayed list of doctors who are authorised to prescribe ARV drugs? [ ] Yes [ ] No

11.14 Does the pharmacy retain a copy of the prescription? [ ] Yes [ ] No

11.15 What are the qualifications of the pharmacy in-charge? _____

11.16 Does the dispenser/pharmacist counsel clients on the medications (drug interactions, contra-indications, side effects, etc.)? [ ] Yes [ ] No

Drug availability/Accountability

11.17 Does the facility do physical stock taking? [ ] Yes [ ] No

11.18 Is reconciliation done between physical stock counts and stock cards/ledger cards?

[ ] Yes [ ] No

11.19 If yes, how often and by whom? _____

11.20 Are stock reports indicating the stock levels made? [ ] Yes [ ] No

11.21 To whom does the pharmacy in-charge report? _____

12.0 District Support and Partnership in ART

District Health Team (DHT)

12.1Do you supervise the PFP facilities in the district? Yes [ ]No [ ]

12.2 If yes, how is the supervision conducted?

12.3 What supports are you giving the facility?

12.4 What materials and logistics do you supply to the facility?

12.5 What challenges do you face in monitoring activities of the PFP facilities in your district?

12.6 Do PFP facilities compile monthly reports to district?

PFP Facilities

12.7 Is the facility supervised by the DHT? Yes [ ] No [ ]

12.8 If yes, what types of supervision does your facility get from the DHT?

12.9 How often is the supervision done?

USAID HEALTH CARE IMPROVEMENT PROJECT: UGANDA
Plot 40, Ntinda II Road
P. O. Box 28745
Kampala, Uganda

Tel: 256-414-288751
Fax: 256-312-261773

USAID HEALTH CARE IMPROVEMENT PROJECT
University Research Co., LLC
7200 Wisconsin Avenue, Suite 600
Bethesda, MD 20814

Tel: (301) 654-8338
Fax: (301) 941-8427
www.hciproject.org