THE REPUBLIC OF UGANDA

Ministry of Health

Health Facility-level Indicators for Monitoring the National HIV/AIDS Antiretroviral Therapy Programme in Uganda

October 2007

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For more information about the application of these indicators, please contact members of the Core Technical Team in the Ministry of Heath AIDS Control Programme or the USAID HCI Project/QAP (email: QAPUganda@urc-chs.com). We also recommend that you consult the other MOH guidelines and policies listed in the References of this document.

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Abbreviations

3TC	Lamivudine
ACP	AIDS Control Programme
AIDS	Acquired Immunodeficiency Syndrome
ANC	Antenatal Care
ART	Antiretroviral Therapy
ARV	Antiretroviral
CDC	U.S. Centers for Disease Control and Prevention
CD4	CD4 Cells
d4T	Stavudine
ddI	Didanosine
DNA-PCR	Deoxyribonucleic Acid-Polymerase Chair Reaction
EFV	Efavirenz
HCI	Health Care Improvement Project
HIV	Human Immunodeficiency Virus
HIV+/-	Human Immunodeficiency Virus Positive/Negative
IEC	Information, Education, and Communication
JCRC	Joint Clinical Research Centre
Lab	Laboratory
LFT	Liver Function Test

LIP	Lymphoid Interstitial Pneumonitis/pneumonia
LNMP	Last Normal Menstrual Period
LPV/r	Lopinavir/Ritonavir
MOH	Ministry of Health
NFV	Nelfinavir
NMS	National Medical Stores
NVP	Nevirapine
OIs	Opportunistic Infections
PMTCT	Prevention of Mother-to-Child Transmission
QAP	Quality Assurance Project
RFT	Renal Function Test
SCMS	Supply Chain Management System
T30	Triomune 30
TB	Tuberculosis
TLC	Total Lymphocyte Count
URC	University Research Co., LLC
USAID	United States Agency for International Development
WHO	World Health Organisation
ZDV	Zidovudine

Foreword

In response to the HIV/AIDS epidemic, the Government developed and implemented a number of plans and strategies to avert the scourge. Since then, Uganda has made significant progress in the fight against the disease. This progress has been achieved through a multi-sectoral approach embraced by the Government in collaboration with partners.

The advent of (antiretroviral therapy) ART brought in new challenges. Currently, 306 health facilities have been accredited to provide antiretroviral therapy countrywide, and 110,000 patients are on treatment out of an estimated 200,000 in need of ART. As the country moves toward attainment of universal access to antiretroviral therapy envisaged to be attained in 2010, issues of quality of care, data management, and reporting as well as monitoring and evaluation are critical to the long term success of the National ART Programme.

In partnership with the U.S. Agency for International Development (USAID), the Ministry of Health (MOH) introduced the Quality of Care (QoC) initiative in HIV/AIDS in November 2005 with the main purpose of institutionalizing quality improvement as part of the culture for health services delivery through development of a sustainable quality improvement system for HIV/AIDS service delivery using the Continuous Quality Improvement (CQI) model. Through the QoC initiative, the Ministry of Health developed indicators for monitoring the ART Programme at national, district and facility levels. The health facility-based indicators have been field tested over the last two years in 89 facilities, and results so far obtained are encouraging and will go a long way in helping the MOH to monitor the performance of the National ART programme.

This set of indicators is to be used by all stakeholders implementing the ART Programme in the country. I strongly appeal to all partners to make use of these indicators to ease monitoring of the programme and documentation of success of ART implementation.

Dr.Elizabeth Madraa
PROGRAMME MANAGER
STD/AIDS Control Programme

Objectives and Indicators for Monitoring Comprehensive HIV/AIDS Services, Including ART

Patient Assessment and Screening for ART

Main Objective	Indicator Related to the Main Objective	Definition/Narrative	Numerator	Denominator
1. 100% of HIV+ patients enrolled in general care are assessed for ART eligibility at every clinic visit.	1. % of HIV+ patients enrolled in the clinic and receiving general care who have been assessed for ART eligibility at every visit	"General care" is care provided to HIV+ patients who are enrolled in chronic care and are receiving HIV/AIDS services, but who have not yet been started on ARVs. Assessment is by CD4 count, TLC, or WHO staging. Data may be disaggregated by sex, age, and pregnancy status.	Number of HIV+ patients who received general care in the clinic and were assessed for ART eligibility within the past (month)	Total number of HIV+ patients who received general care in the clinic within the past (month)
Suggested source: HIV care/ART card.				

Reproductive Health/Family Planning

Main Objective	Indicator Related to the Main Objective	Definition/Narrative	Numerator	Denominator
2. 100% of HIV+ women of reproductive age seen in the clinic are screened for pregnancy at every clinic visit.	2. % of HIV+ women of reproductive age seen in the clinic who have been screened for pregnancy at every clinic visit	"HIV+ women of reproductive age (15–49 years) seen in the clinic" includes those receiving general care as well as those receiving ART. Per MOH guidelines, all such women should be screened for pregnancy using MOH/internationally recommended methods. Such methods may include any of the following: - Review of last normal menstrual period (LNMP) - Urine test for pregnancy - Haematological test for pregnancy - Pelvic ultrasonography	Number of HIV+ women of reproductive age seen in the clinic within the past (month) (in general care or on ART) who are screened for pregnancy	Total number of HIV+ women of reproductive age in general care or on ART seen in the clinic within the past (month)
Suggested source: HIV care/ART card.				

Reproductive Health/Family Planning				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
3a. 100% of HIV+ patients of reproductive age receiving services are counselled on family planning methods at every clinic visit.	3a. % of HIV+ patients of reproductive age seen in the clinic who are counselled on family planning methods	"HIV+ patients of reproductive age" refers to HIV+ men 15 years and above and HIV+ women 15–49 years, enrolled in the HIV/ AIDS clinic for either general care or ART. "Seen in the clinic" means received general care or ART within the HIV clinic of the facility	Number of HIV+ patients of reproductive age seen in the clinic (for general care or ART) who were counselled on family planning methods within the past (month)	Total number of HIV+ patients of reproductive age who were seem in the clinic within the past (month)
Suggested source: HIV care/ART card.				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
3b. 50% of HIV+ patients of reproductive age are using at least one family planning method.	3b. % of HIV+ patients of reproductive age seen in the clinic who are currently using at least one family planning method	HIV+ patients of reproductive age seen in the clinic (men 15 years and above and women 15–49 years) for care (either general care or are on ART) and are using family planning methods for short- and long-term family planning based on national guidelines. Such commonly used methods include condoms, oral pills, injectable contraceptives, Norplant and abstinence. Please refer to the Reproductive Health Policy Guidelines for further information.	Number of HIV+ patients of reproductive age who are currently using at least one family planning method and were seen in the clinic within the past (month)	Total number of HIV+ patients of reproductive age who were seen in the clinic within the past (month)
Suggested source: HIV care/ART card.				

Reproductive Health/Family Planning				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
3c. 100% of HIV+ patients of reproductive age who are not yet on family planning are referred for family planning services.	3c. % of HIV+ patients of reproductive age enrolled in the clinic who are not yet on family planning who are referred for family planning services	HIV+ patients enrolled in the clinic (either general care or are on ART), of reproductive age (men 15 years and above, women 15–49 years), who are currently not using any recommended family planning methods. As per national guidelines, such patients should be referred for family planning services at the nearest location.	Number of HIV+ patients of reproductive age seen in the clinic who are not yet on family planning who are referred for family planning services within the past (month)	Total number of HIV+ patients of reproductive age seen in the clinic who are not yet using any family planning method within the past (month)
Suggested source: HIV care/ART card.				
TB Assessment among HIV+				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
4. 100% of HIV+ patients are assessed for active TB at every clinic visit.	4. % of HIV+ patients seen in the clinic who are in general care and/or receiving ART who are assessed for active TB at every visit	HIV+ patients, whether on ART or in general care, should be assessed for TB every time they are seen by a health care provider using the following clinical assessment procedures: - Coughing for more than 3 weeks - Blood in sputum - Weight loss - Night sweats Data may be disaggregated by age, sex, and pregnancy status.	Number of HIV+ patients (in general care or on ART) seen in the clinic within the past (month) who were assessed for active TB at every visit	Total number of HIV+ patients (in general care or on ART) seen in the clinic within the past (month)
Suggested source: HIV care/ART card.				

Laboratory Indicators				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
5. CD4 machine is functional and operational at least 90% of the pre-determined operational days.	5a. % of pre-determined operational days that the CD4 machine performs CD4 tests	A facility with a CD4 machine should be performing CD4 tests on all pre-determined operational days. The pre-determined operational days are decided on by the site itself. They may be clinic days or other days deemed more appropriate by the clinic staff.	Number of pre-determined operational days during which the CD4 machine performed CD4 tests within the past (month)	Number of pre-determined operational days within the past (month)
Suggested source: facility lab inventory.				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
	5b.% of time that the CD4 machine is functional	"CD4 machine is functional at least 90% of the time" means that the machine could actually be used if the need arose. This indicator measures the amount (percentage) of time the CD4 machine is not functional. Reasons include, but are not limited to, lack of materials (solution, pipet, tubes, etc.), machine breakdown, or absence of lab personnel qualified and capable of running the machine effectively.	Number of days the machine was functional within the past (month)	Total number of working days within the past (month)
Suggested source: facility lab inventory.				

Laboratory Indicators				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
6. 100% of referred samples are acceptable for testing.	6a. % of samples referred that are acceptable for testing	"Referred" samples are samples that are collected from patients in one health facility that is unable to conduct the required test and sends the sample to another health facility for testing. "Acceptable" means the sample meets the minimum requirement for testing by the time it reaches the health facility that it is being referred to. "Tests" means CD4 counts, LFTs, RFTs, TLCs, resistance testing, DNA-PCRs, and viral load. This indicator is only for health facilities that do not have the capacity to conduct any one of the above-mentioned tests, but need them for quality patient care. Such facilities are encouraged to refer their samples to nearby facilities, particularly regional referral hospitals, though occasionally district hospitals or health center IVs are capable of conducting these tests. The referred samples should meet the minimum requirements for testing. Such facilities should have standard operating procedures for the referral center that explain the sample handling requirements for each test.	Number of samples referred from the facility HIV/ART clinic that are acceptable for testing within the past (month)	Total number of samples referred for testing within the past (month)
Suggested source: lab register/sample reception book (from the referring facility).				

Laboratory Indicators				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
	6b. % of samples received from other health facilities that are acceptable for testing.	"Referred samples" are samples received from other health facilities for testing. "Acceptable" means the sample meets the minimum requirement for testing. "Tests" means CD4 counts, LFTs, RFTs, TLCs, resistance testing, DNA-PCRs, and viral load tests. This indicator is only for health facilities that have the capacity to conduct at least one of these tests. These are mostly referral hospital labs, but occasionally include labs at the district hospitals or health center IVs who have equipment and can perform these tests for themselves and other nearby clinics. The referred samples should meet the minimum requirements for testing upon receipt at the health facility to which the sample is referred.	Number of samples referred to the facility HIV/ART lab for testing that are acceptable for testing within the past (month)	Total number of samples referred for testing within the past (month)
Suggested sources: lab register and sample reception book at the referral facility.				

Patient Treatment with ART				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
7. 100% of patients receiving ART have met eligibility criteria.	7a. % of patients newly receiving ART who have met the ART eligibility criteria prior to starting their regimen	All patients on ART should have met the ART eligibility criteria prior to starting their regimen. "ART eligibility criteria" are: Adults (>14 years) - HIV+ **and** - WHO Staging 3 or 4, **or** - CD4 absolute less than 200; **or** - TLC 1200 or below This indicator is for ADULTS only. Definition of eligibility for infants and children is in indicators #28a, b. Data may be disaggregated by sex, age, and pregnancy status.	Number of patients seen in the clinic who were newly started on ART within the past (month) and met the ART eligibility criteria	Total number of patients seen in the clinic who were newly started on ART within the past (month)
Suggested sources: HIV care/ART card and the ART register.				

Patient Treatment with ART				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
	7b. % of HIV+ patients who are eligible and ready to start on ART	All HIV+ patients who have met the medical eligibility criteria are eligible and should be made ready for ART as soon as possible. "Ready" means that the patient has been adequately prepared through counselling for ART adherence social and for financial support. This indicator intends to highlight patients who are medically eligible (as defined in 7a), but have not yet been made ready. While the MOH recognizes that ART readiness is not an emergency, the process of becoming ready for ARVs should be streamlined so that most medically eligible patients become ready within a relatively short period of time. Data may be disaggregated by age, sex, and pregnancy status.	Number of HIV+ patients who are both eligible and ready to start ART within the past (month)	Total number of HIV+ patients who are eligible for ART within the past (month)
Suggested sources: HIV care/ART card and the pre-ART register.				

Patient Treatment with ART				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
	7c. % of HIV+ patients who are eligible and ready for ART and who have been started on ART	HIV+ patients eligible and ready for ART who have been started on ART "Started on ART" means receiving 1st or 2nd line antiretroviral therapy. "Eligibility" is defined in 7a above. "Ready" is defined in 7b above. This indicator intends to highlight the waiting list for starting on antiretrovirals at a health facility. For patients who are medically eligible and have been made ready through counselling, this waiting time should be as short as possible. Data may be disaggregated by age, sex and pregnancy status.	Number of HIV+ patients who are eligible and ready for ART, who have been started on ART within the past (month)	Total number of HIV+ patients eligible and ready for ART within the past (month)
Suggested source: pre-ART register.				

Patient Treatment with ART				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
	7d. % of ART-naïve HIV+ patients who are eligible and ready for ART who are started on 1st line antiretroviral therapy	"ART-naïve patients" are those who are HIV+ and have not yet taken any antiretroviral medications. First line ARVs for adults (>14 years): -d4T-3TC-NVP -d4T-3TC-EFV -ZDV-3TC-NVP -ZDV-3TC-EFV First line ARVs for children (0–14 years): -d4T-3TC-NVP -d4T-3TC-EFV -ZDV-3TC-NVP -ZDV-3TC-EFV Data may be disaggregated by adult vs. children.	Number of ART naïve HIV+ patients, eligible and ready, who are started on 1st line therapy within the past (month)	Total number of patients who are started on ART within the past (month)
Suggested sources: HIV care/ART card and ART register.				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
	7e. % of patients on ART who have switched from 1st to 2nd line therapy	HIV+ patients who started with 1st line ART and were switched to 2nd line ART 2nd line therapy for adults: - ZDV-ddI-LPV/r - d4T-ddI-LPV/r 2nd line therapy for children: - d4T-ddI-NFV - ZDV-ddI-LPV/r Data may be disaggregated by adults vs. children.	Number of patients seen in the clinic who switched from 1st to 2nd line therapy within the past (month)	Total number of patients on 1st line therapy seen in the clinic within the past (month)
Suggested source: HIV care/ART card.				

Patient Treatment with ART				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
	7f. % of patients on ART who have been switched from 1st to 2nd line therapy because of toxicity or adverse side effects	HIV+ patients who started with 1st line ART and switched to 2nd line ART because of suspected or documented toxicity or adverse side effects Such primary toxicities/adverse events include: a) Zidovudine: Haematological (anaemia, neutropenia, thrombocytopenia) myopathy, and GI intolorence; b) Stavudine (D4T): Painful peripheral neuropathy, lipoatrophy, lactic acidosis, hepatitis, and pancreatitis; c) Nevirapine: Skin rash, Stevens-Johnson syndrome, and hepatotoxicity; d) Efavirenz: Nightmares, rash, and hepatitis; e) Lamivudine (3TC): Painful peripheral, pancreatitis. Please refer to the national ART guidelines for additional examples.	Number of patients seen in the clinic within the past (month) who switched from 1st to 2nd line ART because of toxicity or adverse side effects	Total number of patients seen in the clinic within the past (month) who switched from 1st to 2nd line ART
Suggested source: HIV care/ART card.				

Prevention of Opportunistic Infections				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
8. 100% of HIV+ patients are prescribed daily Cotrimoxazole (or Dapsone for those who are allergic to Cotrimoxazole)	8a-1. % of HIV+ patients seen in the clinic (general care or receiving ART) who are prescribed daily Cotrimoxazole	MOH guidelines stipulate that Cotrimoxazole be given daily to all HIV+ patients seen in the HIV clinic, whether in general care or receiving ART. This indicator measures that at least a prescription of daily Cotrimoxazole is given to each HIV+ patient.	Number of HIV+ patients seen in the clinic (general care or on ART) who were prescribed daily Cotrimoxazole within the past (month)	Total number of HIV+ patients in general care or on ART who were seen in the clinic within the past (month)
Suggested source: HIV care/ART card.				
	8a-2. % of HIV+ patients on Cotrimoxazole who are adherent	Patient is "adherent" if he/she takes 95% of prescribed cotrimoxazole pills: Adults: 1 tablet twice a day of 480mg tablet (80mg of Trimethoprim and 400mg of Sulfamethoxasole) OR 1 tablet once a day of 960mg tablet (160 of Trimethoprim and 800mg Sulfamethoxasole), daily for life. Children: Recommended dosage is 4mg/kg Trimethoprim and 20mg/kg Sulfamethoxasole, daily for life. Pregnancy: Cotrimoxazole prophylaxis is recommended for all HIV+ pregnant women after the first trimester. Research shows that up to 2% of patients may be allergic to Cotrimoxazole. Such patients may be given Dapsone. Please refer to Septrine policy for further information.	Number of patients seen in the clinic who are adherent with their Cotrimoxazole prescription within the past (month)	Total number of patients seen in the clinic within the past (month) who are prescribed Cotrimoxazole
Suggested source: HIV care/ART card.				

Prevention of Opportunistic Infections				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
	8b-1. % of children <18 months born to HIV+ mothers who are prescribed daily Cotrimoxazole	All children less than 18 months born to HIV+ mothers are exposed to HIV and presumed to be HIV+ until they test HIV- and should be enrolled in the HIV clinic. Daily Cotrimoxazole prophylaxis is indicated for these children until testing shows they are HIV-. Children between ages 6 weeks and 18 months may be tested for HIV using DNA-PCR. If they test HIV+, they stay on Cotrimoxazole. If they test negative, they no longer have to take Cotrimoxazole. Children who have not yet tested HIV-negative but were born to HIV+ mothers should be included in calculations.	Number of children <18 months born to HIV+ mothers seen in the clinic who are prescribed daily Cotrimoxazole within the past (month)	Total number of children <18 months born to HIV+ mothers who were seen in the clinic within the past (month)
Suggested sources: HIV care/ART card and PMTCT register.				
	8b-2. % of HIV+ children >18 months who are prescribed daily Cotrimoxazole	Children older than 18 months should be tested for HIV using the same procedures as adults to determine their HIV status. All HIV+ children should be put on Cotrimoxazole as per national guidelines.	Number HIV+ children >18 months seen in the clinic during the past (month) who are prescribed daily Cotrimoxazole	Total number of HIV+ children >18 months seen in the clinic during the past (month)
Suggested source: HIV care/ART card.				

Referral and Follow-up of Patients				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
9. 50% of HIV+ patients in general care are referred for CD4 testing once every six months	9. % of HIV+ patients in general care who are referred for CD4 testing once every six months	Per national and international guidelines, all HIV patients receiving care should have a CD4 count test at least every 6 months. Such patients should be referred to the lab within their facility for this test. If a CD4 machine is not available or the test is otherwise not possible at the facility where the patient normally receives care, the patient should be referred to a nearby health facility. Facilities should develop a system for identifying HIV+ patients who are due for CD4 testing (meaning that they have not had one in the past six months).	Number of HIV+ patients in general care seen in the clinic within the past (month) who had not had a CD4 test in the past 6 months and were referred for CD4 testing	Total number of HIV+ patients in general care seen in the clinic within the past (month) who had not had a CD4 test within the past 6 months
Suggested source: HIV care/ART card.				
10. 100% of HIV+ pregnant women seen in PMTCT and ANC clinics are enrolled in general care.	10a. % of HIV+ pregnant women seen in the PMTCT or ANC clinic who are enrolled in general care or ART at the clinic.	All HIV+ pregnant women should be enrolled in the clinic for general care and assessed for ART and care. The target population includes all pregnant HIV+ women who are receiving ANC care either through PMTCT programs or ANC clinics within the health facility.	Number of HIV+ pregnant women seen in PMTCT and ANC clinics who were enrolled for general care in the HIV clinic within the past (month)	Total number of new HIV+ pregnant women seen at PMTCT and/or ANC clinic at health facility within the past (month)
Suggested sources: PMTCT register, pre-ART register, and HIV care/ART card.				

Referral and Follow-up of Patients				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
	10b. % pregnant women on ART who are referred to PMTCT	Women who become pregnant while on ART should be referred to PMTCT. Pregnant women who were referred from PMTCT to the clinic should not be included in calculations.	Number of pregnant women on ART seen in the clinic within the past (month) who were referred for PMTCT	Total number of pregnant women on ART seen in the clinic within the past (month)
Suggested source: HIV care/ART card.				
11. 100% of HIV+ patients identified with active TB are started on TB treatment.	11. % of HIV+ patients seen in the clinic and identified with active TB who are started on TB treatment	All HIV+ patients identified with active TB should be started on TB treatment, according to MOH guidelines. Such patients include those on ART as well as those in general care. Identification of active TB is done by one or more of the following procedures: 1. Clinical assessment (coughing for more than 3 weeks, blood in sputum, weight loss, night sweats) 2. Radiological findings 3. Laboratory 4. Other recommended investigations	Number of HIV+ patients seen in the clinic and identified with active TB who are started on TB treatment within the past (month)	Total number of HIV+ patients seen in the clinic within the past (month) who were identified with active TB
Suggested source: HIV care/ART card.				

Referral and Follow-up of Patients				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
12. 100% of patients on ART have documented contact tracing information.	12. % of HIV+ patients on ART with documented contact tracing information	Contact information is documented in client records for HIV+ patients on ART. ***Verify and update data at every visit.*** These data should enable health workers to confidently trace the patient to his/her place of residence when necessary. Thus, every effort should be made to ensure its accuracy. These data include: LC-1, parish and sub-county, and phone number.	Number of patients on ART with documented contact tracing information who were seen in the clinic within the past (month)	Total number of patients on ART who were seen in the clinic within the past (month)
Suggested sources: ART register and HIV care/ART card.				

Referral and Follow-up of Patients				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
13. 95% of patients on ART are adherent to ARV medicines.	13. % of patients on ART who are adherent to ARV medicines	MOH guidelines recommend that all patients on ART take at least 95% of prescribed doses. A patient is adherent **only** if s/he takes at least 95% of prescribed ARVs as measured by one subjective and one objective measure. ***Subjective*** - Self-reporting (3- or 4-day recall) - Drug compliance calendars - Visual analog - Reports from adherence supporters ***Objective*** - Monthly refills - Pill counting - Electronic tracking device Patients who take less than 95% of ARV pills are not adherent.	Number of patients on ART seen at the clinic within the past (month) who are adherent to ARV medicines	Total number of patients on ART seen at the clinic within the past (month)
Suggested sources: HIV care/ART card; pharmacy or dispensing records.				
14. Death rate among patients on ART is less than 5%.	14. % of patients on ART who have died	It is recommended that facilities develop systems to monitor the number of patients on ART who die each month. The calculation involves identifying those expected to be seen during the month as the denominator. "Expected to be seen" refers to total number of patients with appointments for the specified month.	The number of patients on ART expected to be seen in the specified month who are confirmed to have died	Total number of patients on ART expected to be seen in the specified month
Suggested sources: ART Register and HIV Care/ART card.				

Referral and Follow-up of Patients				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
15. 80% of patients on ART have shown clinical improvement during the last six months.	15. % of patients on ART for the past six months who have shown clinical improvement	Clinical improvement; refers to: A. *For adults*, functional status is categorized in the following manner: Work, Ambulatory, and Bedridden; B. Weight gain; C. Reduced episodes of opportunistic infections. A patient is said to have clinically improved if: -(1) Weight is steady or increasing, **and** -(2) Functional status is ambulatory or better, **and** -(3)There are no OIs.	Number of patients on ART for the last six months seen in the clinic who have shown clinical improvement	Total number of patients on ART for the past six months who were seen in the clinic
Suggested source: ART Register (cohort analysis) **or** HIV care/ART card.				
16. 50% of patients on ART obtain a CD4 test at least once every 6 months.	16. % of patients on ART who obtain a CD4 test at least once every 6 months	Every 6 months HIV+ patients on ART are eligible for CD4 testing. While respecting the structural limitations (i.e., not enough CD4 machines), the MOH encourages the use of CD4 counts for monitoring immunological improvement of patients on ART. It is recommended that facilities that do not have CD4 machines refer patients to the nearest health facility that has a functional CD4 machine.	Number of patients on ART for at least six months and seen in the clinic within the past (month) who obtained at least one CD4 test within the last 6 months	Total number of patients who were on ART for at least six months and who were seen in the clinic within the past (month)
Suggested source: ART Register (cohort analysis) **or** HIV care/ART card				

Referral and Follow-up of Patients				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
17. 80% of patients with 2 CD4 tests done within the past 12 months have had an increase in their CD4 counts.	17a. % of patients with 2 CD4 tests within the past 12 months who have had an increase in their CD4 count	Patients on ART are recommended to take a CD4 test once every six months. Thus, within 12 months, 2 such tests should have been done and can therefore be compared. The comparisons can be made either with: - baseline (prior to ART) and six months after ART **or** - six months into ART and six months later **or** - baseline and 12 months later, etc…. A patient's CD4 count can be used as an immunological marker of improvement as long as comparison figures are available.	Number of patients on ART seen in the clinic within the past (month) with 2 CD4 tests in the past 12 months who have had an increase in their CD4 count	Total number of patients with 2 CD4 counts in the past 12 months who were seen in the clinic within the past (month)
Suggested source: ART register (cohort analysis) **or** HIV care/ART card.				
	Indicator Related to the Main Objective	**Definition/Narrative**		
	17b. Median increase of CD4 among patients with an increase CD4 count	Calculate the median CD4 increase for patients who had an increase in their CD4 count during the past 12 months. The difference between the two counts is calculated by subtracting the later CD4 test from the earlier one (e.g., CD4 in Dec. 2005 – CD4 in Dec. 2006). This difference may be positive or negative. You may consider data from baseline to the 6th month, or from the 6th month to the 12th, or baseline to the 12th month, etc. Arrange all the differences in CD4 tests in ascending order and take the middle number as the median.		
Suggested source: ART register (cohort analysis) **or** HIV care/ART card.				

Referral and Follow-up of Patients				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
18. Less than 10% of HIV+ patients on ART are lost to follow-up.	18a. % of HIV+ patients on ART who have missed their scheduled appointment this month	Missing a scheduled appointment refers to the patient not showing up at the clinic on the date that s/he was scheduled to come or within three days before or after.	Number of patients who missed their scheduled appointment and did not show up within three days before or after the scheduled appointment during the past (month)	Total number of patients with scheduled appointments for the past (month)
Suggested source: HIV care/ART card.				
	18b. % of HIV+ patients on ART who are lost to follow-up	*Lost to follow- up*: HIV+ patients on ART who have not come for scheduled medical or refill visits for at least 3 consecutive months. Transfer-outs and the deceased are not included in lost-to-follow-up calculation.	Number of patients on ART who are lost to follow-up within the past (month) and who have neither transferred out nor died	Total number of patients on ART at expected to be seen the clinic this (month) (excluding those who transferred out or died)
Suggested source: HIV care/ART card **or** ART register.				

Health Facility Logistics and Capacity				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
19. HIV/AIDS drug inventory log is kept updated at all times.	19. % days that drug inventory log is up to date at a health facility	It is recommended that the health facility keep updated drug inventory logs for all essential HIV/AIDS medicines at all times so as to identify and report shortages appropriately early. This update should be done daily or at least every clinic day. Updated drug inventory means that the amount of drugs currently available is accurately reflected in the drug inventory log at the health facility. Essential HIV/AIDS drugs refer to the following types: - ARV - Cotrimoxazole - Diflucan (Fluconazole) - TB medicines	Number of clinic days that the drug inventory log is up-to-date	Total number of clinic days in the month
Suggested sources: logistics/drug inventory and stock cards.				
20. 0% stock-out of ARVs	20. % of days that any ARV is out of stock	Health facilities that manage their ARV stock well enough should not have stock-outs or the need to make emergency requests Calculations are with "working days" instead of "clinic days" because in most health facilities it is feasible that a patient could come for refill of ARVs on a day that is not a clinic day.	Do not count ARVs that are out of stock but substituted by another ARV deemed acceptable by MOH, for example, T30 for T40 that is currently out of stock. Number of days any unsubstituted ARV is out of stock	Total number of working days within a month (e.g., 22 days)
Suggested source: logistics/drug inventory.				

Health Facility Logistics and Capacity				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
21. 90% of health workers providing HIV/AIDS services feel satisfied that they have adequate training to provide quality services.	21a. % of health workers providing HIV/AIDS services who feel satisfied that they have adequate training to provide quality services	It has been noted that lack of confidence in one's skills and abilities is believed to be one of the main reasons a provider may not initiate patients on ART even after completing the standard MOH training. Thus, the subjective component of "feeling satisfied" that one's training is adequate is important for service delivery. Data for this will be collected through survey; thus "feel" refers to what the provider says s/he feels.	Number of health workers providing HIV/AIDS services who feel satisfied that they have had adequate training to provide quality services within the past (6 months)	Total number of health workers providing HIV/AIDS services within the past (6 months)
Suggested source: provider interview (each facility is encouraged to design and develop a simple tool for interview).				
	21b. % of health workers who have had comprehensive training in HIV/AIDS.	Comprehensive training in HIV/AIDS refers to at least 2 weeks' training, which is often conducted by the MOH, Mildmay, JCRC, IDI, or other partners. It is recommended that all providers of HIV/AIDS services be trained in the MOH-recommended basic content so that they are familiar with existing guidelines and policies. Because of high turnover, these data should be collected once every six months.	Number of health workers providing HIV/AIDS services who were ever trained in comprehensive HIV/AIDS	Total number of health workers providing HIV/AIDS services
Suggested source: provider interview (each facility is encouraged to design and develop a simple tool for interview).				

Health Facility Logistics and Capacity				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
22. 90% of health workers providing HIV/AIDS services believe they have adequate essential materials to provide quality services.	22. % of health workers providing HIV/AIDS services who believe they have adequate **essential materials** to provide quality services	"Adequate essential materials" means enough key materials to aid or for provision of HIV/AIDS services, e.g., registers, medicines, laboratory materials supplies, guidelines, reference materials, stationery, IEC materials, etc. It has been noted that health workers at times blame their lack of quality service provision on the lack of materials deemed essential. Health workers who believe they have adequate essential materials to provide quality services are more likely to provide such services to their clients. Data for this will be collected through survey; thus "believe" refers to what the provider says s/he believes.	Number of health workers providing HIV/AIDS services who believe they have adequate essential materials to provide quality services within the past (month)	Number of health workers providing HIV/AIDS services within the past (month)
Suggested source: Provider interview (each facility is encouraged to design and develop a simple tool for interview).				
23. 0% stock-outs of essential HIV medicines and supplies, excluding ARVs	23a. % of days that any essential HIV medicine is out of stock (not including ARVs)	To provide quality HIV services, health facilities should be able to manage their essential HIV medication stock to ensure that there are no stock-outs. "Essential HIV drugs" refers to: - Cotrimoxazole - Diflucan (Fluconazole) - TB medicines. (Note that ARVs are essential AIDS drugs; ARV stock-outs can be monitored through indicator #20.)	Number of working days any essential HIV medicine is out of stock within the past (month)	Total number of working days within the past (month)
Suggested source: logistics/drug inventory.				

Health Facility Logistics and Capacity				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
24. HIV test kits and tie breakers are available at HIV clinics 100% of the time.	24a. % of days in a month when HIV test kits are available	"HIV test kit" is a set of HIV tests necessary to provide conclusive results to an HIV test. They include a screening test, a confirmatory test to be used when the screening test is positive, and a tie breaker test to be used when the screening and confirmatory tests do not produce the same result. While all patients enrolled in the HIV clinic have already tested HIV+, test kits may still be needed for confirmatory testing for those who present without their original paperwork, as well as testing the children >18 months and other family members of enrolled clients.	Number of working days the site has HIV test kits within the past (month)	Total number of working days within the past (month)
	24b % of days in a month when HIV screening is done with tie breaker in stock	"Tie breaker" is the test used when the first two tests are discordant (see description above).	Number of days within the past (month) when HIV screening was done with tie breaker in stock	Total number of days in the past (month) when HIV screening test was done
Suggested source: laboratory kit inventory.				

Health Facility Logistics and Capacity				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
25. 100% of reports and requisitions for ARVs are done on time.	25. % of reports and requisitions that are done on time	Health facilities have to make requests for ARVs to the appropriate office on time in order to ensure timely delivery and minimize stock outs of ARVs. "On time" means that the report is sent to the appropriate office at least one week prior to scheduled delivery dates. SCMS and NMS have now gone from a monthly delivery system to a bi-monthly delivery system. Sites are expected to make requests for ARVs once every two months.	Number of reports and requisitions that were made on time within the past (6 months)	Total number of reports and requisitions made in the past (6 months)
Suggested source: logistics/drug inventory.				
Health Facility Logistics and Capacity				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
26. 100% of patients on ART who seek services at a health facility wait less than 30 minutes before being attended to by a health worker.	26. % patients on ART who wait less than 30 minutes before being attended to by a health worker	Patients on ART who report waiting less than 30 minutes before being attended to by a health worker. Patient waiting time is a proxy measure of perceived quality and patient satisfaction of health services delivered.	Number of patients on ART who wait less than 30 minutes before being attended to by a health worker within the past (month)	Total number of patients on ART seen at the clinic within the past (month)
Suggested source: patient exit poll interviews **or** documented observation **or** data captured by other straight-forward means by health provider. (Health facilities are encouraged to design tools to capture this information.)				

Paediatric HIV/AIDS Care				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
27a. 100% children born to HIV+ mothers are tested for HIV.	27a. % of children born to HIV+ mothers in PMTCT who were ever tested for HIV	Children born to HIV+ mothers are considered exposed to HIV and should be tested to determine their HIV status. For children aged 0–18 months, the recommended test is DNA-PCR; a child is eligible for testing after the age of 6 weeks. In general, children become eligible for testing using regular HIV test kits starting at the age of 18 months. Thus, facilities without access to DNA-PCR may refer children younger than 18 months to nearby facilities with DNA-PCR capacity or may use the normal forms of testing children 18 months or older. All facilities are encouraged to devise systems for case finding and identifying children born to HIV+ mothers and for testing them.	Number of children born to HIV+ mothers who were seen in the clinic within the past (month) and were ever tested for HIV	Total number of children born to HIV+ mothers seen in the clinic within the past month
Suggested sources: PMTCT follow-up register, pre-ART register, and HIV care/ART card.				
27b. 100% of parents enrolled in the HIV clinic have had at least one child tested for HIV.	27b. % of parents enrolled in the HIV clinic for general care or ART who have had at least one child tested for HIV.	"Parent" refers to any adult who reports having a child living with him or her. "Child" refers to any child (biological, orphan, or other) 1) living with the adult HIV+ patient and 2) who is 0–15 years of age.	Number of parents enrolled in the HIV clinic for general care or ART seen within the past (month) who have ever had at least one child tested for HIV	Total number of parents enrolled in the HIV clinic for general care or ART and seen within the past (month)
Suggested source: HIV care/ART card.				

Paediatric HIV/AIDS Care				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
28. 100% of HIV+ infants and children in general care are assessed for ART.	28a. % of HIV+ infants and children in general care who are assessed for ART at every clinic visit	All HIV+ infants and children should be assessed for ART using the MOH eligibility criteria below.	Number of HIV+ infants and children seen in the clinic for general care who were assessed for ART within the past (month)	Total number of HIV+ infants and children seen in the clinic within the past (month)

***Eligibility Criteria for ART for infants and children**

WHO Paediatric Clinical Stage 1 (indicated only if CD4 is available):

- ≤ 11 mo and CD4 ≤ 25% (or ≤ 1500 cells/mm^3)
- 12–35 mo and CD4 ≤ 20% (or ≤ 750 cells)
- 36–59 mo and CD4 ≤ 15% (or ≤ 350 cells)
- ≥ 5 yrs and CD4 ≤ 15% (< 200 cells)

WHO Paediatric Clinical Stage 2 (indicated only if CD4 count or TLC is available):

- Same as stage 1 **or**
- ≤ 11 mo and TLC ≤ 4000 cells/mm^3.
- 12–35 mo and TLC ≤ 3000 cells.
- 36–59 mo and TLC ≤ 2500 cells.
- ≥ 5–8 years and TLC ≤ 2000 cells.

WHO Paediatric Clinical Stage 3 (ART is indicated):

- Child is less than 12 months, regardless of CD4.
- Child is over 12 months, usually regardless of CD4 but if LIP or TB or oral hairy leukoplakia.

Initiation may be delayed if CD4 is above age-related threshold for advanced or severe immunodeficiency.

WHO Paediatric Clinical Stage 4 (ART is indicated):

Irrespective of CD4 count and should be started as soon as possible.

* *These are interim WHO recommendations and subject to change.*

Suggested source: HIV care/ART card.

Paediatric HIV/AIDS Care				
Main Objective	**Indicator Related to the Main Objective**	**Definition/Narrative**	**Numerator**	**Denominator**
29. 100% of eligible HIV+ infants and children are started on ART.	% of ART-eligible HIV+ infants and children who are started on ART	"Eligible" means meeting at least one of the criteria described in the indicator 28 narrative for eligibility criteria for ART for infants and children. ***All infants and children who are treatment naïve should be started on 1st line ART. First line ARVs for children (0–14 yrs) are:*** - d4T-3TC-NVP - d4T-3TC-EFV - ZDV-3TC-NVP - ZDV-3TC-EFV ** EFV should be given only to children 3 years and older.	Number of HIV+ eligible infants and children seen at the clinic who started on ART within the past (month)	Number of eligible HIV+ infants and children seen in the clinic within the past (month)
Suggested source: HIV care/ART Card.				
30. 100% of children born to HIV+ mothers are referred to the HIV clinic.	30. % of children born to HIV+ mothers who are referred to the HIV clinic	All children born to HIV+ mothers are considered HIV exposed and should be referred to the HIV clinic where their HIV status can be confirmed and care can be provided. Age: birth until tested HIV-. "HIV care" refers to clinical assessment for ART, prescription of prophylaxis for opportunistic infections (Cotrimoxazole), treatment of OIs, etc.	Number of children born to HIV+ mothers who are referred to the HIV clinic during the past (month)	Total number of children born to HIV+ mothers during the past (month)
Suggested sources: PMTCT follow-up register and pre-ART register or HIV care/ART card.				

References

The following Ministry of Health policies and guidelines and international guidelines were used in the preparation of the HIV/AIDS monitoring indicators:

Early HIV Diagnosis and Care for Infants, Guidelines for Health Workers, 2006

Implementation of TB/HIV Collaborative Activities at District Level, Orientation Manual for Health Workers, 2006

National Antiretroviral Treatment and Care Guidelines for Adults and Children, 2003

National Antiretroviral Treatment Policy for Uganda, 2003

National Guidelines for TB/HIV Collaborative Activities, 2006

National Policy Guidelines and Service Standards for Sexual and Reproductive Health and Rights, 2006

National Policy Guidelines for Cotrimoxazole Prophylaxis for People with HIV/AIDS, 2005

National Policy Guidelines for the Prevention of Mother to Child Transmission of HIV, 2006

Uganda National Policy on HIV Counseling and Testing, 2006

WHO Paediatric Clinical Staging for HIV, 2007


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