

A guide on indicators for monitoring and reporting on the health sector response to HIV/AIDS

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Acronyms

ANC	Antenatal Care
ART	Anti-retroviral Therapy
ARV	Antiretroviral Drug
CTX	Co-trimoxazole
EBF	Exclusive Breastfeeding
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug Users
IDP	Internally Displaced Persons
IPT	Isoniazid Preventive Therapy. Also can be termed TBPT (TB preventive therapy)
L&D	Labor and Delivery
LMIS	Logistics Management Information System
M&E	Monitoring & Evaluation
MARPs	Most-at-Risk Populations
MDG	Millennium Development Goal
MoH	Ministry of Health
MSM	Men who have Sex with Men
MTCT	Mother-to-Child Transmission
NSP	Needle and Syringe Programme
OST	Opioid Substitution Therapy
PCP	Pneumocystis carinni pneumonia
PCR	Polymerase Chain Reaction
PEP	Pre or Post-exposure Prophylaxis
PEPFAR	U.S. President's Emergency Plan for AIDS Relief
PLHIV	People Living with HIV/AIDS
PITC	Provider Initiated Testing and Counselling
PMTCT	Prevention of Mother-to-Child Transmission
STI	Sexually Transmitted Infection
SW	Sex Workers
TB	Tuberculosis
UNAIDS	United Nations Joint Programme on AIDS
UNGASS	United Nations General Assembly Special Session
VCT	Voluntary Counselling and Testing

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I. Introduction

As countries scale up their national HIV/AIDS programmes towards the goal of universal access (UA) to prevention, treatment, care and support¹, it is increasingly important to strengthen strategic information on the epidemic and national responses to inform policies and programmes, improve the effectiveness of interventions and promote accountability.

At the international level, WHO is committed since the 59th World Health Assembly in 2006 to monitor and report annually on global progress in countries' health sector responses towards universal access to HIV prevention, treatment, care and support.² WHO is working with UNICEF and UNAIDS to monitor the *health sector response to HIV/AIDS towards universal access*. Progress in the health sector is a key measure of progress towards universal access, as well as broader Millennium Development Goals (MDGs).

In 2009, a Joint Reporting tool for Monitoring and Reporting on the Health Sector Response to HIV/AIDS, including indicators from the health sector response monitoring process and from the Report Card on PMTCT and Pediatric care, was developed. Data were collected through collaborative efforts, and validated at regional and global levels. The report "Towards Universal Access: scaling up priority HIV/AIDS interventions in the health sector, Progress report 2009" was published in September 2009. In 2010 countries are requested to report on the implementation of the United Nations General Assembly Special Session Declaration of Commitment on HIV/AIDS (UNGASS) In order to reduce reporting burden and better harmonize data collection, validation and analysis, WHO, UNICEF and UNAIDS are coordinating UNGASS and Health Sector reporting processes. For 2010 it has been agreed that, in addition to UNGASS indicators, a reduced number of health sector indicators (18 instead of 36 in 2009) will be collected through the reporting tool for the Health Sector Response to HIV/AIDS.³ They complete the UNGASS data collection with a focus on health sector with the aim of strengthening trends analysis in critical areas.

This guidance document compiles descriptions for indicators in the *Reporting Tool*, which is used to collect data from countries to report on Health Sector's response towards Universal Access. It must also be considered for use to monitor the health sector response at the national level, in addition with other information, to review progress.

- **Global Reporting:** This guide is used to support and facilitate data collection through the "*Annual Reporting Tool for Monitoring and Reporting on the Health Sector Response to HIV/AIDS*". This data collection form, disseminated to all countries, is the main tool to enable annual global reporting on the health sector progress towards Universal Access to HIV prevention, care, and treatment through the annual publication "*Towards universal access: scaling up priority HIV/AIDS interventions in the health sector*".
- **National Monitoring:** This guide can also be used for national monitoring of the health sector's response to HIV/AIDS. It can be adapted to the epidemic context of each country. For example, countries should select indicators that would support monitoring of their own nationally-set targets.

¹ United Nations General Assembly. *Political Declaration on HIV/AIDS*, New York, United Nations, 2006.

² HIV/AIDS. *WHO's contribution to universal access to HIV/AIDS prevention, treatment and care: report by the Secretariat*. Geneva, WHO, 2006.

³ Both UNGASS and the Health Sector reporting processes will take place through a single coordinated reporting mechanism. After completion, countries should submit both UNGASS Report and the Health Sector Reporting tool by uploading them to the UNGASS website (<http://ungass2010.unaids.org>). The deadline for submission is March 31st, 2010. For more information on the UNGASS process please see this online demonstration: <http://grd.unaids.org/etraining/index.htm>. The Joint Reporting tool for Monitoring and Reporting on the Health Sector Response to HIV/AIDS can also be found on the following website: <http://www.who.int/hiv/data/tool2010>. Both tools are available in English, French, Russian and Spanish.

Monitoring Health Sector Progress towards Universal Access to HIV/AIDS Prevention, Care, and Treatment

The UA health sector monitoring and reporting tool is organized around the following categories of key intervention areas: **Testing and Counselling**; **Prevention in the Health Setting**; **Sexual Transmission and IDU**; **Care, HIV/TB, STI**; **ART**; **Health Systems**; and **Women and Children**.

For each area, indicators for the dimensions of *availability*, *coverage*, and *impact*, as well as basic *programmatic* information are suggested to monitor the scale-up of priority interventions.

Selected indicators have been **aligned with internationally recommended indicators** (e.g. UNGASS, or other international M&E guides developed by WHO and partners) to the maximum extent possible.

HIV/AIDS Universal Access Health Sector Monitoring Framework

Indicators

Intervention Areas	Availability	Coverage	Impact
<i>Testing and Health Sector Counselling</i>	<i>Physical Availability of interventions</i>	<i>Proportion of Population Needing the Intervention Who Receive It</i>	<i>Impact Related to the Key Intervention Area</i>
<i>Prevention in the Health Setting</i>			
<i>Sexual Transmission and IDU</i>			
<i>Care, HIV/TB, STI</i>			
<i>ART</i>			
<i>Health Systems</i>			
<i>Women and Children- PMTCT, paediatric care</i>			

**Full definitions of availability, coverage, and impact can be found in the footnotes*⁴*

Programmatic Information

Data on national policy and programmatic responses are also important to monitor a country's scale-up especially in new or evolving areas. A selection of programmatic questions are included in the reporting tool, but are not discussed in this guide..

Other Components

Indicators and programmatic information alone will not capture the many dimensions necessary to reach universal access. For example, making the intervention physically available alone does not necessarily lead to increased access, which may depend on affordability and accessibility, and acceptability by those in need of the intervention. Similarly, indicators alone will not provide insight into the various dimensions of the quality of interventions. The impact of interventions may be better optimized through structural changes at the local or national health system level, which may not be apparent through the proposed indicators and programmatic questions. Thus it is important to capture information beyond national indicators as well through operational research, evaluations and special studies including analyses of qualitative information.

- ⁴ **Availability** defined in terms of reach-ability (physical access), affordability (economic access) and acceptability (socio-cultural access) of services that meet a minimum standard of quality⁴. To make services available, affordable and acceptable is an essential pre-condition for "universal access".
- **Coverage** defined as the proportion of the population who receive an intervention among those who need it. Coverage is influenced by supply (provision of services) and demand by people in need of services.
- **Outcome/Impact** defined in terms of behavioural change, reduced new infection rates or survival improvements; it is the result of coverage of services, modulated by the efficiency and effectiveness of the interventions and changes in other relevant factors. Impact goals have been set in the context of the MDGs and the UNGASS declaration on HIV/AIDS. While the impact goals reflect the ultimate purpose of interventions, impact indicators alone will not sufficiently monitor programs to inform the scaling up of access. Therefore, systematic monitoring of progress towards universal access needs to include availability and coverage as well.

Indicator Descriptions in this Guide

The indicator descriptions follow this format:

The indicator number is the number in the UA reporting tool.

X. INDICATOR TITLE	
Rationale	Why this indicator is important
What it measures	What the indicator measures
Numerator	Definition of the numerator
Denominator	Definition of the denominator
How to Measure and Measurement Tools	What is included in the numerator and denominator Method(s) of measurement Tools used for measurement
Disaggregation	Recommended disaggregation. These in <i>Italics</i> are not included for breakdown in the Reporting Tool, but recommended to be collected for national monitoring and reporting as appropriate
Strengths and weaknesses	Description of the strengths and weakness of the indicator
Additional considerations	Other points for countries to note
Data utilization	How this indicator can be used and some implications
Data Quality Control and Notes for the Reporting Tool	Additional information on issues to consider when filling in the reporting tool. Includes elements of: <ul style="list-style-type: none"> • <i>Double Reporting</i>: What to pay attention to in order to assess possible double reporting. • <i>National Representativeness</i>: What to pay attention to in order to assess the national representativeness of the value reported. • <i>Denominator Issues</i>: Issues to note about the denominator • <i>Triangulation Options</i>: Other data sources that can be reviewed to assess the validity of the indicator value
Other References	References related to the indicators: <i>UNGASS</i> : UNGASS indicator requested for UNGASS 2009 reporting <i>PMTCT</i> : Indicator in the updated PMTCT M&E guide (2009) <i>HIV/TB</i> : Indicator in the updated TB/HIV M&E guide (2009) <i>IDU</i> : Technical Guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (2009)

Target Audiences

This guide can be used as a reference for national program managers and UN staff completing the *Annual Reporting Form for Global Monitoring and Reporting on the Health Sector Response Towards Universal Access*; or for anyone working on monitoring and evaluation related to HIV, the health sector, or broader development goals, as a handbook of indicators for key HIV interventions in the health sector.

Planning for Global Reporting and National Applications

This guide provides a comprehensive description of the definitions of the 2010 selected health sector indicators including the numerators and denominators, how to measure and measurement tools, disaggregation requirements, strengths and limitations, as well as other additional considerations for collating and reporting as well as reporting and interpretation of the data.

Data Collection and Validation Process at the Country Level

In line with our commitment to the "3 ones", we strongly recommend that for the UNGASS and Health sector reporting processes the country offices of WHO, UNICEF and the UNAIDS Secretariat jointly support national counterparts and partner agencies to collate and validate data and build consensus through a single collaborative consultation process. Such collaboration will enable greater completeness and homogeneity of data, better local analysis and application, and ultimately allow a more comprehensive global analysis.

Country offices should work together to determine the most appropriate process and division of responsibilities for data collection, validation, and reporting. As a first step, we propose that country offices of the three agencies organize a joint meeting with national authorities, identify focal points, and agree on a division of labour to liaise with national partners to collect data for the different sections of the reporting tool. We recommend that a consensus meeting then be organized at country level to cross-validate data, before relaying those to regional offices and headquarters for global analysis. Data validation and assessment at the country level with partners and stakeholders, where people are most familiar with the data, are crucial; having a yearly process in place to review, analyse and validate data produced in-country is encouraged.

Data Collection and Validation Process at Regional and Global levels

At the regional level, regional offices will liaise with country offices to answer any queries and provide other support as requested, and ask for any clarifications necessary. It would be ideal if WHO, UNICEF, and UNAIDS can discuss and agree on the logistical arrangements in the reporting process including: aligned queries to be sent from regional offices to country offices; the in-country focal point(s) for data collection; data review and validation procedure and decisions; the in-country focal point for managing and updating the database; and the process to share data.

At the global level, agencies will work together to validate data with other data sources where possible and based on what is known of country monitoring systems, and ask for clarifications necessary. The responsibilities and processes and timeline need to be discussed with the common goal of jointly producing one set of data related to the HIV response in the health sector. This collaboration by the 3 agencies to collaborate on a joint reporting process should minimize the possibility of having discrepancies in reporting the same indicator (or same value reported to and used by all agencies).

Data Utilization at National, Regional and Global levels

The process to monitor and report on the HIV response in the health sector at country level should be a catalyst to analyze and use the data sets for programmatic and policy purposes. They should facilitate situational analyses of health sector responses to HIV and support strategic planning processes (e.g.

revisiting yearly operational objectives and targets). Furthermore they should also generate discussions on data gaps and weaknesses in country's M&E systems; it is also a good opportunity to discuss among partners how to strengthen the monitoring and evaluation system to make it functional at the national level.

At the regional level, data can also be stored, reviewed and analyzed to develop situational analyses of the health sector response to HIV in the region and discuss with countries how M&E systems strengthening can be supported. Data will also be presented in regional meetings.

Globally, data collected through this process will be analyzed and presented in the annual global report "*Towards universal access: scaling up priority HIV/AIDS interventions in the health sector*" as well as other regional and global reports. Where appropriate, some indicators will be aggregated or analyzed globally and regionally, whereas others will be used to describe country examples or as part of a country situational analysis.

Technical Support and Contact for Questions

WHO, UNICEF and UNAIDS are committed to support countries improve their strategic information system, including and not limited to the review of health sector M&E systems; data quality and validation; evaluating impact; surveillance; operational research; and capacity-building in various aspects of strategic information.

Please do not hesitate to contact us at hivstrategicinfo@who.int for any questions or requests.

Please send any comments and suggestions for improving this guidance document to: hayashic@who.int.

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We would like to especially thank staff from Government Ministries at all levels who collect, analyse, validate, and provide this information every year.

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II. INDICATOR DESCRIPTIONS

List of indicators

The below list of indicators include all priority health sector indicators. The 2010 health sector reporting process does not include *UNGASS indicators (in italic in the below list)* and propose a limited list of non-UNGASS indicators: only the **bolded indicators** in the below list should be reported in 2010.

For UNGASS indicators, please use the reference handbook

	Page
A Testing and counselling	
#A1 (Number and) Percentage of health facilities that provide HIV testing and counselling Services	12
#A2 Number (and Percentage) of individuals aged 15 years and over who received HIV testing and counselling in the last twelve months and know the result	14
<i>#A3 Percentage of women and men aged 15-49 who received an HIV test in the last 12 months and who know their results</i>	
#A4 Proportion of sexually active young women and men aged 15-24 who received an HIV test in the last 12 months and who know their results	
<i>#A5 Percentage of most-at-risk populations (MARPs) who received an HIV test in the last 12 months and who know their results</i>	
#A6 Percentage of people 15-49 years who know their HIV status	
B Prevention in health care settings	
#B1 Percentage of health care facilities where all therapeutic injections are given with new, disposable, single use injection equipment	
#B2 Percentage of health facilities with post-exposure prophylaxis (PEP) services available on site	
C Prevention of sexual transmission of HIV and prevention of transmission through injecting drug use	
#C1 Number of needle and syringe programme (NSP) sites per 1000 injecting drug users	16
#C2 Number of opioid substitution therapy (OST) sites per 1000 injecting drug users	18
#C3 Number of syringes/needles distributed per injecting drug user per year by NSP	20
<i>#C4a Percentage of injecting drug users (IDU) reached with HIV prevention programmes in the last 12 months</i>	
<i>#C4b Percentage of sex workers (SW) reached with HIV prevention programmes in the last 12 months</i>	
<i>#C4c Percentage of men who have sex with men (MSM) reached with HIV prevention programmes in the last 12 months</i>	
<i>#C5a Percentage of injecting drug users reporting the use of sterile injecting equipment the last time they injected</i>	
<i>#C5b Percentage of injecting drug users reporting the use of a condom the last time they had sexual intercourse</i>	
<i>#C5c Percentage of female and male sex workers reporting the use of a condom with their most recent client</i>	
<i>#C5d Percentage of men reporting the use of a condom the last time they had anal sex with</i>	

a male partner

#C6a *Percentage of injecting drug users (IDUs) who are HIV-infected*

#C6b *Percentage of sex workers (SW) who are HIV-infected*

#C6c *Percentage of men who have sex with men (MSM) who are HIV-infected*

D Care

#D1 Percentage of adults and children enrolled in HIV care and eligible for co-trimoxazole (CTX) prophylaxis (according to national guidelines) currently receiving CTX prophylaxis

E HIV/TB

#E1 *Percentage of estimated HIV-positive incident TB cases that received treatment for TB and HIV*

#E2 Percentage of adults and children newly-enrolled in HIV care given treatment for latent TB infection (isoniazid preventive therapy (IPT)

#E3 Proportion of adults and children enrolled in HIV care who had TB status assessed and recorded during their last visit

F Sexually transmitted infections

#F1 **Number of targeted service delivery points for sex workers where STI services are provided per 1000 sex workers** 22

#F2 Proportion of women accessing antenatal care (ANC) services who are tested for syphilis in the last 12 months

#F3 Prevalence of syphilis among sex workers

#F4 Prevalence of syphilis among men who have sex with men

#F5 **Prevalence of syphilis among antenatal care attendees** 23

G Antiretroviral therapy

#G1 **Percentage of health facilities that offer ART** 24

#G2 *Percentage of adults and children with advanced HIV infection receiving antiretroviral therapy*

#G3a *Percentage of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy*

#G3b **Percentage of adults and children with HIV known to be on treatment 24 months after initiation of antiretroviral therapy** 26

#G3c **Percentage of adults and children with HIV known to be on treatment 36 months after initiation of antiretroviral therapy** 26

#G3d **Percentage of adults and children with HIV known to be on treatment 48 months after initiation of antiretroviral therapy** 26

#G3e **Percentage of adults and children with HIV known to be on treatment 60 months after initiation of antiretroviral therapy** 26

#G4 Percentage of patients initiating antiretroviral therapy at the site during a selected time period who are taking an appropriate first-line regimen 12 months later

H Health systems

#H1 **Percentage of health facilities dispensing ARVs that experienced a stock-out of at least one required ARV in the last 12 months** 28

#H2 Percentage of facilities providing ART using CD4 monitoring in line with national guidelines/policies, on site or through referral

I Women and children

#I1	Number of ANC attendees	
#I2	Number of facilities providing ANC services	
#I3	Number of facilities providing ANC services which also provide CD4 testing on site, or have a system for collecting and transporting blood samples for CD4 testing for HIV-infected pregnant women	
#I4	Number of facilities providing ANC services that also provide HIV testing and counselling for pregnant women	
#I5	Percentage of health facilities providing ANC services that offer both HIV testing and antiretrovirals (ARVs) for the prevention of mother-to-child transmission (PMTCT) on site	
#I6	Percentage of health facilities that offer paediatric ART (i.e. prescribe and/or provide clinical follow-up)	
#I7	Percentage of health facilities that provide virological testing services (e.g. PCR) for infant diagnosis on site or through dried blood spots (DBS)	
#I8	Percentage of pregnant women who were tested for HIV and received their results - during pregnancy, during labour and delivery, and during the post-partum period (<72 hours), including those with previously known HIV status	30
#I9	Percentage of male partners of pregnant women attending ANC who know their HIV status	
#I10	<i>Percentage of HIV-infected pregnant women who received antiretrovirals to reduce the risk of mother-to-child transmission</i>	
#I11	Percentage of HIV-infected pregnant women assessed for ART eligibility through either clinical staging or CD4 testing	33
#I12	Percentage of HIV-infected pregnant women receiving ART for their own health	
#I13	Percentage of <u>infants</u> born to HIV-infected mothers (HIV exposed infants) receiving any ARVs for prevention of mother-to-child transmission (PMTCT)	35
#I14	Percentage of infants born to HIV-infected women started on cotrimoxazole (CTX) prophylaxis within two months of birth	37
#I15	Percentage of infants born to HIV-infected women who received an HIV test (virological or antibody) within 12 months	39
#I16	Distribution of feeding practices (exclusive breastfeeding, replacement feeding, mixed feeding/other) for infants born to HIV-infected women at DTP3 visit	41
#I17	<i>Percentage of HIV-infected children aged 0–14 years who are currently receiving ART</i>	

Note on General Country Information

A frequently asked question is what we are defining as a **health facility**. For the purposes of this reporting process, we are excluding health facilities that provide specialized care which would never provide any HIV services (e.g. an eye clinic). If you have difficulties trying to define what is counted as a health facility for this exercise, please provide any comments you have in the Comment box or email us.

A. Testing and Counselling

A1 (Number and) Percentage of health facilities that provide HIV testing and counselling services	
Rationale	Knowledge of HIV status is critical to expand access to HIV treatment, care and support, and prevention. Availability of testing and counselling (TC) services is the pre-requisite for scaling up TC coverage so that more people know their HIV status, which can be expanded through voluntary counselling and testing (VCT) and provider initiated testing and counselling (PITC) models.
What it measures	Availability of TC services in health facilities.
Numerator	Number of health facilities that provide HIV testing and counselling services
Denominator	Total number of health facilities <i>(Efforts should be made to include all public, private and NGO-run health facilities).</i>
How to Measure and Measurement Tools	<p>Numerator: 1. Central register of all T&C sites; 2. Central test kit procurement records for the number of facilities requesting kits. <i>Please include data from private facilities and other sites providing services in the country Specify sources and if possible disaggregate. (see "Disaggregation")</i></p> <p>Denominator: 1. Central register of health facilities; 2. Health facility surveys: SPA, SAM, etc. <i>Effort should be made to include all public, private and NGO-run health facilities)</i></p> <p>Information on availability of certain services are usually summarized at the national or sub-national level. National TC programs should have a record of facilities that provide TC services. Efforts should be made to include facilities providing services in the private and NGO sectors, especially where those are a significant provider of TC services. A recent health facility census can also provide this information as well as much more in-depth information on availability of services.</p> <p>All sites where TC is offered should be counted. Thus sites that offer testing and refer out samples to a laboratory elsewhere, get test results back, and relay results to the client, are included.</p> <p>All VCT sites will be included in both the numerator and denominator.</p>
Disaggregation	<i>If possible, by:</i> 1. <i>Type of health facility (e.g., government health facilities, NGOs, CBOs, mission hospitals, and private health facilities)</i> 2. <i>Type of services offered (e.g., TB clinic, STI clinic, etc)</i>
Strengths and weaknesses	This indicator is intended to monitor availability of TC services as countries continue to expand TC. It does not intend to capture quality of TC services provided.
Data utilization	Coverage: to look at progress in the percentage of health facilities which provide testing and counselling. Analyzing the data geographically and by types of health facilities are important. In addition, triangulating those with population data can provide insights into where there is a need to increase availability of TC services.

Additional considerations	It is recommended that every health facility has the capacity to offer testing and counselling in generalized epidemics ⁵ . In low-level and concentrated epidemics, the goal may not be to have TC services available in every facility and thus the denominator can be adjusted to be a subset of all facilities depending on the country context.
Data Quality Control and Notes for the Reporting Tool	<p><i>National Representativeness: Effort should be made to include all public, private and NGO-run health facilities</i></p> <p>Denominator Issues: The total number of health facilities might be difficult to identify in some countries and not very meaningful in countries with low or concentrated epidemics.</p> <p>The numerator is the key component of the indicator and allows the comparison of trends in service availability over time.</p>

⁵ Guidance of provider-initiated testing and counselling in health facilities, WHO/UNAIDS, 2007.

A2 Number (and percentage) of individuals aged 15 and older who received HIV T&C in the last twelve months and know their results	
Rationale	Knowledge of HIV status is critical for access to HIV treatment, care and support, and prevention. There are different models for delivery of the testing and counselling services such as VCT and PITC. The essential elements of TC, however, are that those who are tested are appropriately counselled and know the results.
What it measures	Programmatic progress for testing and counselling. Tracking the number of individuals who are tested and counselled and know their status provides an indication of uptake of T&C in the country.
Numerator	Number of people aged 15 and older who received HIV T&C through any method or setting in the past 12 months and know their results
Denominator	Not applicable. <i>Although not required for the purposes of this indicator the denominator may be gauged by using the general population as the denominator in generalized epidemics, and the most at-risk populations (MARPs) and other groups for low-level and concentrated epidemics.</i>
How to Measure and Measurement Tools	Program service statistics compiled from routine reports of the number of people tested and know the results from all service points , including VCT sites, clinics, hospitals, and NGO outreach points, etc. which are often aggregated at the district or local levels and subsequently at the national level. This indicator is <i>not</i> measured through population-based surveys (see next indicator).
Disaggregation	Sex: male, female Serostatus: <i>HIV positive, HIV negative</i> <i>If possible :</i> Age: 15-19, 20-24, 25+ Test: <i>New test , Repeated test</i>
Strengths and weaknesses	This indicator permits comparison of trends of the quantity of TC services delivered and the strength of scaling up TC services over time. This indicator will provide information on the number of times T&C occurred, and not necessarily the number of <i>people</i> who received T&C services unless countries have a mechanism to avoid double-counting of repeat testers. The indicator does not provide information on whether those who were tested were adequately referred to and receiving follow-up services to benefit from knowing their status. In low-level and concentrated epidemics, this indicator may not be as useful. Countries with law for those 18 years and below no accessing T&C should be specified. Often difficulties in collecting: <ul style="list-style-type: none"> – Age – Anonymous testing – most of those who get tested do not indicate age or gender
Data utilization	Can compare with previous years to look at trends while considering the percentage of the population that may have already been tested recently. It can be useful to explore any patterns in testing, for example whether there were more

	tests conducted in a particular season or month when/ if there were campaigns, or whether many more people are being tested in particular health facilities or in the communities.
Additional considerations for countries	In some countries, a significant proportion of testing and counselling services are provided by community-based organizations or unregistered organizations, which often may not be included as part of national statistics. These organizations are encouraged to register with national authorities so all data on testing and counselling could be reflected in the national statistics.
Data Quality Control and Notes for Reporting	<ul style="list-style-type: none"> • Double Reporting: Countries will need to estimate the extent of repeat testers in order to determine the true number of persons tested over the period. If countries have a mechanism to make such a meaningful assessment (e.g. record of the number of repeat testers), it is recommended to do so and to note how this was done. Otherwise, thanks to report the total number of tests reported. • National Representativeness: Try to ensure information from non-governmental and private facilities are also available at the central level. If significant information is missing, note it down in the comments section. • Denominator Issues: <i>Although not required for the purposes of this indicator, the validity of the numerator may be gauged by comparing the general population as the denominator in generalized epidemics, and the size of the most at-risk populations (MARPs) and other groups for low-level and concentrated epidemics.</i> • Triangulation Options: In generalized epidemics, data from population-based surveys asking for the number (and calculating the percentage) of people tested can be compared to with this indicator value to assess and discuss any major differences. • Test Results: In the comments section, please report data by serostatus (<u>number HIV+, HIV-</u>) if available.

B Prevention in health care settings
(no indicator in this round of reporting)

C Prevention of sexual transmission of HIV and prevention of transmission through injecting drug use

C1 Number of needle and syringe programme (NSP) sites per 1000 injecting drug users (IDUs)	
Rationale	Needle and syringe distribution programmes are among the most effective interventions for preventing transmission of HIV among injection drug users. Sufficient access to clean needles for the injecting population is measured with this indicator.
What it measures	Availability of sites that can provide clean needles and syringes to injection drug users
Numerator	Number of NSP sites (including pharmacy sites providing no cost needles and syringes)
Denominator	(Number of IDUs)/1000
How to Measure and Measurement Tools	Numerator: National program data Denominator: Population size estimates of injection drug users (UNAIDS estimates)
Disaggregation	<i>Administrative unit</i> <i>Urban, rural</i>
Strengths and weaknesses	Many NSP are not "official" and therefore may not be counted among national program data. NSP can be distributed unevenly. At the national level, disaggregation by administrative units will be useful to assess availability.
Additional considerations	Needle and syringe programmes (NSPs) are any programs that include access to clean equipment and safe disposal through fixed or mobile exchange programmes and/or through pharmacies where equipment is available free of charge. In many countries pharmacy <i>sales</i> of injecting equipment are an important and sometimes the most significant source of clean injecting equipment accessible to drug users. However, pharmacies that sell needles and syringes are typically not counted in a retrievable data base as part of a public health or harm reduction program. If they are available, they should be counted and highlighted, if possible. Pharmacies that distribute needles and syringes free of cost typically do maintain records of needles distributed as part of the program and should be included. Please refer to the WHO/UNODC/UNAIDS Technical Guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (http://www.who.int/hiv/topics/idu/en/index.html) for a complete set of globally agreed indicators for IDUs.
Data utilization	Get an idea of the availability of NSP sites in relation to the IDU population size in the country. Also try to analyze data based on geographical location of the NSP sites and geographical distribution and population density of IDUs in the country. Try to assess whether sufficient NSPs are available for the number and distribution of IDUs in the country.
Data Quality Control and Notes for the Reporting Tool	<ul style="list-style-type: none"> • National Representativeness: Many NSP sites are not "official" and may be run by NGOs, which the government may not have information on. Please try to assess the national representativeness of the number you are reporting. • Denominator Issues: It is difficult to measure the number of IDUs in a country. However, an estimate of the size and geographical distribution of the IDU population is important for national programming. <p><i>Please provide a brief explanation of the methods used to derive your denominator estimate.</i></p>

	Please remember to <i>divide</i> the total number of estimated IDUs by <i>1,000</i> for the denominator.
Other References	WHO/UNODC/UNAIDS Technical Guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (http://www.who.int/hiv/topics/idu/en/index.html)

C2 Number of opioid substitution therapy (OST) sites per 1000 IDU	
Rationale	Opioid substitution therapy represents a commitment to treat opiate users and to reduce the frequency of injection, preferably to zero. OST is the single most effective public health tool for reducing injection drug use.
What it measures	National commitment and progress towards the treatment of opiate users and reduction of HIV transmission probabilities among IDU.
Numerator	Number of OST sites
Denominator	(Number of IDU)/1000 (If estimates of opiate-using IDUs is available, use that number)
How to Measure and Measurement Tools	Numerator: Program data Denominator: Estimates of number of opiate users (injecting and non-injecting) or # of IDU (from UNAIDS estimates)
Disaggregation	<i>Administrative units; Urban, rural</i>
Strengths and weaknesses	OST sites should be readily available and valid since they are typically licensed by the relevant authorities. However, the number of sites does not indicate the number of <i>slots</i> that may be available. Obtaining subgroup population size estimates will be difficult and add extra uncertainty
Additional considerations	Please refer to the WHO/UNODC/UNAIDS Technical Guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (http://www.who.int/hiv/topics/idu/en/index.html) for a complete set of globally agreed indicators for IDUs. The best denominator for the indicator would be: OST sites <i>per 1000 opiate injectors</i> . In this indicator description, we have listed the denominator as the number of IDUs as a proxy, to be consistent with the wording that appears in the reporting tool.
Data utilization	Get an idea of the availability of OST sites in relation to the population size of opiate injectors in the country. Also try to analyze data based on geographical location of the OST sites and geographical distribution and population density of opiate IDUs in the country. If possible, try to interpret this indicator considering information available on the number of OST slots in various sites. Try to assess whether sufficient OSTs are available for the number and distribution of opiate injectors in the country.
Data Quality Control and Notes for the Reporting Tool	<ul style="list-style-type: none"> • Denominator Issues: It is even more difficult to measure the number of opiate users than IDUs in a country. However, an estimate of the size and geographical distribution of opiate using population is important for national programming. In the absence of specific opiate using subpopulation data, the number of IDU is a reasonable proxy if non-injecting opiate users are equivalent to non-opiate using injectors. <i>If the total number of OST clients over the past 12 months is available, please report in the comments box.</i> • Triangulation Options: The denominator may be improved if different drug user data resources are available for triangulation. Some countries survey all drug users, though most will primarily survey IDU. <i>Please provide a brief explanation of the methods used to derive your denominator estimate – Refer to the above indicator if using the same denominator, or provide additional information if estimate of the number of opiate using estimate IDUs is available .</i>

	Please remember to <i>divide</i> the total number of estimated IDUs by <i>1,000</i> for the denominator.
Other References	WHO/UNODC/UNAIDS Technical Guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (http://www.who.int/hiv/topics/idu/en/index.html)

C3 Number of syringes/needles distributed per injecting drug user per year by NSP	
Rationale	Prevention of HIV transmission among IDU requires sufficient clean needles and syringes to prevent re-use and sharing of such equipment. Program coverage therefore must include sufficient commodities to protect every injection by illicit injectors.
What it measures	Proxy for the coverage of injection acts by NSP
Numerator	Number of syringes distributed by all NSP in the last 12 months (including pharmacy sites providing no cost needles and syringes)
Denominator	Estimated number of IDUs
How to Measure and Measurement Tools	Numerator: Commodity procurement data or syringe dispensary data if available from NSPs. (See <i>Additional Considerations</i> for explanation of NSPs) Denominator: Size estimations of IDU (UNAIDS estimates)
Disaggregation	<i>Urban/rural</i>
Strengths and weaknesses	This only covers syringes distributed through formal programs. Syringes obtained through pharmacy purchase, secondary exchange or unofficial needle programs are not captured by this indicator.
Additional considerations	Needle and syringe programmes (NSPs) are any programs that include access to clean equipment and safe disposal through fixed or mobile exchange programmes and/or through pharmacies where equipment is available free of charge. In many countries, pharmacy <i>sales</i> of injecting equipment are an important and sometimes the most significant source of clean injecting equipment accessible to drug users. However, pharmacy sales are typically not collected in a retrievable data base as part of a public health or harm reduction program. If these data are available, they can be collected. Pharmacies that distribute needles and syringes free of cost typically do maintain records of needles distributed as part of the program and should be included. Please refer to the WHO/UNODC/UNAIDS Technical Guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (http://www.who.int/hiv/topics/idu/en/index.html) for a complete set of globally agreed indicators for IDUs as well as indicative targets for this indicator. The coverage indicator for drug dependence treatment (percentage of opioid injectors on OST) is also recommended.
Data utilization	Gives overall indication of coverage of NSP programs. Try to explore based on a disaggregated situational analyses whether there are any inequities in the distribution of syringes and where this indicator value may be falling under the national value.
Data Quality Control and Notes for the Reporting Tool	<ul style="list-style-type: none"> • Double Reporting: Efforts should be made to assure that double counting of syringes distributed does not occur. In particular, an NGO with multiple distribution sites but central purchasing may report from some sites and from the central purchasing mechanism. • National Representativeness: If data are more readily available from some parts of a country than others, (not attributable to distribution of sites, though), representativeness should be questioned. • Denominator Issues: It is difficult to measure the number of IDUs in a country. However, an estimate of the size and geographical distribution of the IDU population is important for national programming. <p><i>Please provide a brief explanation of the methods used to derive your estimate.</i></p>

	<i>If you have disaggregated data by administrative unit (e.g. by districts, oblasts), please include them in the comments section.</i>
Other references	WHO/UNODC/UNAIDS Technical Guide for countries to set targets for universal access to HIV prevention, treatment and care for injecting drug users (http://www.who.int/hiv/topics/idu/en/index.html)

D Care

(no indicator in this round of reporting)

E HIV/TB

(no indicator in this round of reporting)

F Sexually transmitted infections

F1 Number of targeted service delivery points for sex workers where STI services are provided per 1000 sex workers	
Rationale	Access to STI control services is critical for sex workers who are at increased risk of acquiring and transmitting HIV. Access to STI control services provides opportunities for early treatment of STI and counselling for behaviour change, access to HIV testing in populations at risk of acute HIV infection, and an entry point into care programmes for people living with HIV.
What it measures	Progress towards providing STI services for SW and ultimately their clients
Numerator	Number of targeted service delivery points for sex workers where STI services are provided
Denominator	(Estimated number of sex workers)/1000
How to Measure and Measurement Tools	Program data on STI service sites Size estimations of SW (UNAIDS estimates)
Disaggregation	<i>Suggested, by:</i> - Urban, rural - Administrative units
Strengths and weaknesses	STI service sites are often not limited to providing care for a particular risk group, however national programs often attempt to make some sites more accommodating to sex workers with flexible hours and empathic staff. While only partially indicative of sex worker programming, it is easily verifiable and represents some commitment.
Additional considerations	None
Data utilization	Assess whether sufficient STI services are available for sex workers in the country. Review data and explore other information on uptake and perception of services.
Data Quality Control and Notes for the Reporting Tool	<ul style="list-style-type: none">• Numerator issues: Please provide comments on how you decided on the number of targeted service delivery points for sex workers. Please comment on whether service sites provide services limited to only SW or jointly with other populations.• Denominator Issues: Please provide additional information on methods, analysis, and how the estimate was derived for the number of sex workers, to improve interpretation of the data. Some issues to consider are: regions of the country covered; sample size; data extrapolation assumptions; any significant data missing; uncertainty ranges where available. <p>Please remember to <i>divide</i> the total number of estimated SWs by <i>1,000</i> for the denominator.</p>

F5 Prevalence of syphilis among antenatal care attendees	
Rationale	Syphilis infection in antenatal care attendees is a marker of STI prevention program effectiveness, and provides early warning of potential changes in HIV transmission in the general population.
What it measures	Syphilis positivity in antenatal care attendees (15-19, 20-24, 25 and more)
Numerator	Number of antenatal care attendees who tested positive for syphilis
Denominator	Number of antenatal care attendees who were tested for syphilis
How to Measure and Measurement Tools	<p>How to Measure: Data may be obtained from national programme records, seroprevalence survey, DHS, or other special studies. Because most in-country data systems do not maintain unique identifiers and women may be tested more than once in a pregnancy, these data may reflect syphilis positivity rather than true prevalence. However, for most countries, positivity is not thought to differ greatly from true prevalence in the antenatal care setting.</p> <p>Measurement tools: Syphilis positivity can be measured using either non-treponemal tests (e.g., RPR or VDRL) or treponemal tests (e.g, TPHA, TPPA, EIA, or a variety of available rapid tests), or a combination of both. Positivity with a non-treponemal test is suggestive of acute infection, whereas positivity with a treponemal test indicates previous infection even if treated successfully. Ideally, these tests are conducted jointly to facilitate and improve interpretation; however, in the majority of antenatal care settings this is not possible on a routine basis. If both tests can not be conducted, non-treponemal tests are preferred for testing in the antenatal care setting because they are more likely to identify acute disease. However, use of rapid treponemal tests has allowed syphilis testing to occur in settings without laboratory capacity, greatly increasing the number women who can be tested and treated for syphilis in pregnancy.</p>
Disaggregation	By age (15-19, 20-24, 25 and more)
Strengths and weaknesses	<p>Strengths:</p> <ul style="list-style-type: none"> Given that most countries will have data from a variety of test types, analysis of data of women aged 15 to 24 years increases the likelihood that treponemal test positivity reflects recent infection. <p>Weaknesses:</p> <ul style="list-style-type: none"> As countries switch tests over time, changes in positivity may reflect changes in test technology as well as true changes in disease burden.
Additional considerations	If both treponemal and non-treponemal test results an individual patient are available, then syphilis positivity should be defined as having positive results on both tests.
Data utilization	Look at trends over time to assess trends in disease and effectiveness of STI prevention programmes. Knowledge of testing practices in country should be used to assist with interpretation of disease trends. Compare data on trends of syphilis and HIV.
Data Quality Control and Notes for the Reporting Tool	<ul style="list-style-type: none"> Countries should report the estimated proportion of syphilis tests that were non-treponemal in order to assist with interpretation of trends in disease. It is important NOT to count multiple tests run on the same patient in the same pregnancy.

G Antiretroviral therapy

G1 Percentage of health facilities that offer ART	
Rationale	Antiretroviral therapy is a cornerstone of effective HIV treatment, and measuring the percentage of health facilities that offer ART provides valuable information about ART availability.
What it measures	Availability of antiretroviral therapy (ART) services, expressed as percentage of health facilities that offer ART (i.e., prescribe and/or provide clinical follow-up). Health facilities include public and private facilities, health centres and clinics (including TB centres), as well as health facilities that are run by faith-based or nongovernmental organizations.
Numerator	Number of health facilities that offer ART (i.e., prescribe and/or provide clinical follow-up).
Denominator	Total number of health facilities, excluding specialized facilities where ART services are/will never be relevant. (e.g. facilities only specializing in ophthalmology)
How to Measure and Measurement Tools	<p>The numerator is calculated by summing of the number of facilities reporting availability of ART services. Information on the availability of specific services is usually kept at the national or sub-national level. National AIDS Programmes should have a record of all health facilities offering ART services (maintaining an accurate registry of services). A health facility census or survey can also provide this information, along with more in-depth information on available services, provided the information is collected from a representative sample of health facilities in the country. Responses to a series of questions establish whether providers in that facility provide ART services directly (i.e., prescribe ART and/or provide clinical follow-up for ART patients) or refer patients to other health facilities for these services. In addition, facility records documenting the current status of service provision should be consulted. One potential limitation to facility surveys or censuses is that they are usually only conducted once every few years. Countries should regularly update their programme records on health facilities offering ART services, and supplement these data with those obtained through a health facility survey or census every few years. For health facility surveys or censuses, tools such as the Service Provision Assessment (SPA) or the Service Availability Mapping (SAM) can be used.</p> <p>The denominator is calculated by summing the total number of health facilities included in the sample. Information for construction of the denominator may come from programme records, facility listings, and/or national strategy or planning documents. It should exclude specialized facilities where ART services are/will never be relevant. (e.g. facilities specializing in eye care where ART will never be introduced)</p>
Disaggregation	<i>Sector: public, private</i>
Strengths and weaknesses	This indicator provides valuable information about the availability of ART services in health facilities, but it does not capture information about the quality of services provided. Antiretroviral therapy itself is complex, and it should be delivered as part of a package of care interventions, including the provision of cotrimoxazole prophylaxis, the management of opportunistic infections and comorbidities, nutritional support and palliative care. Simple monitoring of ART availability does not ensure that all ART-related services are adequately provided to those who need them. Nevertheless, it is important to know what percentage of health facilities provide ART services in order to plan for service expansion as needed to

	meet universal access targets.
Additional considerations	<ul style="list-style-type: none"> • One strategy to scale up ART services is to make ART available in more health facilities. This may be achieved by decentralizing ART services from tertiary facilities (e.g., hospitals) to primary or secondary-level health facilities. Greater availability of ART services provides crucial support to the goal of universal access to HIV treatment by 2010. • Depending on the country's epidemic type, the denominator may not be as relevant if the HIV program strategy aims to target a limited number of sites to offer ART in. Also, the denominator may not be accurate enough, to make the proportion reliable. However the trend over years in numerator (or the increase in the number of health facilities that offer ART) is key information by itself in documenting the rhythm for scaling up services.
Data utilization	To look at progress in the number and percentage of health facilities which provide antiretroviral therapy. Analyzing the data geographically and by type of health facilities, by urban/rural settings and triangulating the data with estimates of HIV density can provide insight into where there is a need to increase availability of ART services.
Data Quality Control and Notes for the Reporting Tool	<ul style="list-style-type: none"> • Please comment on whether the data reported are from a national facility listing or census, or from a survey. If data from the private or other sectors are missing, please comment. <p>If it is possible to easily report any additional information on the geographical distribution of facilities offering ART (e.g. urban/rural, %facilities with ART in areas with a high concentration of PLWA), please provide extra details.</p> <ul style="list-style-type: none"> • The numerator is the key component of the indicator and allows the comparison of trends over time. • Denominator Issues: denominator not always available in the private sector.

G3a, b, c, d, e Percentage of adults and children with HIV known to be on treatment a) 12 months, b) 24 months, c) 36 months, d) 48 months, e) 60 months after initiation of antiretroviral therapy	
Rationale	ART is a lifelong therapy that increases survival and reduces transmission.
What it measures	This indicator measures the retention on ART related to the increase in survival and willingness to continue ART. It should be produced at 12 months and then yearly after the beginning of ART. It completes program coverage by a measure of the effectiveness.
Numerator	Number of adults and children who are still alive and on ART a)12 months, b)24 months, c) 36months, d)48months, e)60 months after initiating treatment.
Denominator	Total number of adults and children who initiated ART who were expected to achieve 12-month outcomes within the reporting period, including those who have died since starting ART, those who have stopped ART, and those recorded as lost to follow-up at month 12. Similarly for b)-e), who were expected to achieve b)24, c)36, d)48 or e)60-months outcomes within the reporting period, for the respective indicators.
How to Measure and Measurement Tools	<p>Numerator and denominator: Programme monitoring tools; ART register and cohort analysis report form.</p> <p>Selection of the denominator For the reporting period from 1 January to 31 December 2009, countries will calculate these indicators among:</p> <ul style="list-style-type: none"> ▪ For 12 months outcomes: all patients who started antiretroviral therapy from 1 January to 31 December 2008 by checking their outcome at 12 months during 2009. ▪ For 24 months outcomes: all patients who started antiretroviral therapy from 1 January to 31 December 2007 by checking their outcome at 24 months during 2009. ▪ For 36 months outcomes: all patients who started antiretroviral therapy from 1 January to 31 December 2006 by checking their outcome at 36 months during 2009. ▪ For 48 months outcomes: all patients who started antiretroviral therapy from 1 January to 31 December 2005 by checking their outcome at 48 months during 2009. ▪ For 60 months (5 years) outcomes: all patients who started antiretroviral therapy from 1 January to 31 December 2004 by checking their outcome at 60 months during 2009. <p>Explanation of the numerator <i>For the indicator at 12 months</i>, the numerator requires that adult and child patients must be alive and on antiretroviral therapy at 12 months after their initiation of treatment. The numerator does not require patients to have been on antiretroviral therapy continuously for the 12-month period. Patients who may have missed one or two appointments or drug pick-ups, and temporarily stopped treatment during the 12 months since initiating treatment but are recorded as still being on treatment at month 12 are included in the numerator. On the contrary, those patients who have died, stopped treatment or been lost to follow-up at 12 months since starting treatment are not included in the numerator. For example for those patients who started antiretroviral therapy in May 2008, if at any point</p>

	<p>during the period May 2008 to May 2009 these patients die, are lost to follow-up (and do not return), or stop treatment (and do not restart) then at month 12 (May 2009), they are not on antiretroviral therapy, and not included in the numerator. Conversely, a patient who started antiretroviral therapy in May 2008 and who missed an appointment in June 2008, but is recorded as on ART in May 2009 (at month 12) is on ART and will be included in the numerator. What is important is that the patient who has started antiretroviral therapy in May 2008 is recorded as being alive and on ART after 12 months, regardless of what happens from May 2008 to May 2009 (period from 0 to 12 months after initiation of treatment).</p> <p><i>These principles are similar when calculating the indicator at 24, 36, 48 and 60 months.</i></p>
Disaggregation	As much as possible, this indicator is to be disaggregated by sex, by age (<15, 15+), by 1 st line and 2 nd line regimens at 12 months.
Strengths and weaknesses	The continuation of ART is mostly related to survival (but also willingness to continue). Survival might reflect the services offered but also depends on the baseline characteristics of the patients started on ART. Clinical, immunological and virological staging are independent predictors of survival under ART. Baseline characteristics of the cohort of patients should help in interpreting the results and, in particular, comparing ART sites.
Additional considerations	In countries where this indicator is not produced in all ART sites but in a sub-set of facilities, data should be interpreted keeping in mind the representativeness.
Data utilization	Note any particularly low coverage and assess reasons behind it. Try to get data on the distribution of those who are not on ART: dead, stopped, loss to follow up. If data is available, try to assess loss to follow-up population to see if they are likely to be dead, stopped, or transferred out. Compare cohorts.
Data Quality Control and Notes for the Reporting Tool	National Representativeness: If this indicator is only produced in a sub-set of facilities, comment should be added on the source of information, sample size and whether the information is representative of all ART sites.

H Health systems

H1 Percentage of health facilities dispensing ARV that experienced a stock-out of at least one required ARV in the last 12 months	
Rationale	As countries scale-up ART services, it is important to ensure that ARVs are available to those who need them. ART is a long-term treatment strategy for people living with advanced HIV infection, and treatment interruptions may lead to treatment failure and HIV drug resistance. Efficient supply management is needed to ensure that required ARVs do not run out of stock.
What it measures	This indicator measures a key aspect of antiretroviral (ARV) drug supply management: whether health facilities dispensing ARV drugs have run out of stock of at least one required ARV in the last 12 months.
Numerator	Number of health facilities dispensing ARVs that experienced one or more stock-outs of required ARV drug in the last 12 months.
Denominator	Total number of health facilities dispensing ARVs.
How to Measure and Measurement Tools	Logistics management information systems, or health facility surveys such as the Service Provision Assessment or the Service Availability Mapping may be used if they include questions on ARV stock-outs. If there is one national logistics management information system with details on ARV availability at the health facility level, information should be extracted from this system to construct this indicator. Alternatively, the information may need to be collected through a special survey or site visits. If there are only a limited number of health facilities where ARVs are dispensed in the country, all health facilities dispensing ARVs should be included in the survey or site visits. If the number of health facilities dispensing ARVs is large, it may be necessary to select a representative sample from the total number of health facilities dispensing ARVs (the full list should be available at the national level). When sampling, it is important to ensure that the sample includes facilities at different levels (such as central, district, and peripheral levels) and urban versus rural setting. In countries where ARV drugs are dispensed at pharmacies or other non-health facility delivery points, stock-outs should also be monitored in these venues; feasibility will depend on the coverage of the Logistics Management Information System.
Disaggregation	Sector: <i>public, private</i>
Strengths and weaknesses	This indicator captures a crucial component of the ART programme: whether or not there is a continuous, uninterrupted supply of ARV drugs at the health facility level. This indicator does not, however, provide information on why stock-out problems occur; which ARV drug(s) are/were out of stock; or how long the stock-out lasted for a particular ARV drug. It also does not provide information on the quality of ARV drug storage, delivery, and distribution.
Additional considerations	In some situations, simply monitoring stock-outs could be misleading because a facility may keep reserve stock but maintains a policy of not issuing the reserve stock. These facilities would not be counted as having experienced a stock-out using this indicator definition, even though a patient would not be receiving a required ARV drug for treatment. In settings where reserve stock is not issued during ARV stock-outs, it is preferable to collect information on a functional stock-out (i.e., the inability to access or make use of a required ARV drug).
Data utilization	If stock-outs exist, assess whether the problem lies in the national distribution

	<p>system or if it is a local problem. Find out whether the reason is due to projections of supply order or the distribution system or any other issue. Use this as an opportunity to see whether logistics management information system is functioning.</p>
<p>Data Quality Control and Notes for the Reporting Tool</p>	<p>Comment on whether the data is based on national data or survey data from a sample of facilities. Please provide any other comments that would help the interpretation of data (e.g. if only public or private sector data is included, and whether it may be an over-or under- estimate)</p>

I Women and children

18 Percentage of pregnant women who were tested for HIV and received their results	
Rationale	Identification of a pregnant woman's HIV serological status provides an entry point for other services for the prevention of mother-to-child transmission of HIV and to tailor prevention, care and treatment to her needs.
What it measures	This indicator assesses efforts to identify the HIV serological status of pregnant women in the previous 12 months. Percentage of pregnant women who were tested for HIV and received their results - during pregnancy, during labour and delivery, and during the post-partum period (<72 hours), including those with previously known HIV status - attempting to minimize potential double-counting.
Numerator	<p>Number of pregnant women of known HIV status</p> <p>This is compiled from the number of women of unknown HIV serological status attending antenatal care, labour and delivery and postpartum services, who have been tested for HIV and know their results and women with known HIV infection attending antenatal care for a new pregnancy in the past 12 months.</p> <p>The numerator is the sum of categories a–d below:</p> <ul style="list-style-type: none"> a) pregnant women who have an HIV test and the result during antenatal care; b) pregnant women of unknown HIV serological status attending labour and delivery who were tested and received results; c) women of unknown HIV serological status attending postpartum services within 72 h of delivery who were tested and received results; and d) pregnant women with known HIV infection attending antenatal care for a new pregnancy. <p>Pregnant (and postpartum) women of unknown serological status: women who were not tested during antenatal care or at labour and delivery for this pregnancy or do not have documented proof of having been tested during this pregnancy.</p> <p>Pregnant women with known HIV infection: women who were tested and confirmed to be HIV-positive at any time before the current pregnancy, who are attending antenatal care for a new pregnancy. These women do not need to be retested if there is documented proof of their positive status¹, in line with national guidelines on testing pregnant women. These women do, however, need services for the prevention of mother-to-child transmission of HIV and are counted in the numerator.</p>
Denominator	Estimated number of HIV-infected pregnant women who gave birth in the past 12 months. This is a proxy measure of the number of infants born to HIV-infected women.
How to Measure and Measurement Tools	<p>The numerator is calculated from national programme records aggregated from facility registers for antenatal care, labour and delivery and postpartum care.</p> <p>In countries with high rates of facility attendance for labour and delivery, data can be collected from labour and delivery registers only, as the results of HIV testing</p>

	<p>will be available for most pregnant women from this one source.</p> <p>Health facility registers should record known HIV infection in pregnant women coming to antenatal care clinics for a new pregnancy, so that they receive services for prevention of mother-to-child transmission of HIV.</p> <p>All public, private and nongovernmental organization-run health facilities that are providing testing and counselling for pregnant women should be included.</p> <p>The denominator is derived from a population estimate of the number of pregnant women giving birth in the past 12 months. This can be obtained from estimates of births from the central statistics office or from the United Nations Population Division or pregnancy registration systems with complete data.</p>
Disaggregation	<p>Pregnancy stages: ANC, L&D, postpartum</p> <p>HIV serostatus: number HIV+</p>
Strengths and weaknesses	<p>This indicator makes it possible to monitor trends in HIV testing among women attending antenatal care.</p> <p>The times at which drop-outs occur during testing and counselling and the reasons that they occur are not captured by this indicator. It is a measure neither of the quality of testing or counselling nor of the number of women who receive counselling before or after testing.</p> <p>There is a risk for double-counting (see below)</p>
Additional considerations for countries	<p>Not all categories will be applicable to or significant for all settings, e.g. women of unknown status tested within 72 h postpartum. Countries may wish to revise their methods and allocate time and other resources for measuring the categories appropriate to their context.</p> <p>For additional analyses of trends in testing and counselling uptake, countries may wish to disaggregate data by antenatal care, labour and delivery and postpartum, as well as by level of health facility, to know the number of women whose HIV status has been identified at each service, , for example to know the number of women whose HIV status has been identified at each service, such as the percentage of antenatal care attendees whose HIV status is known or the percentage of labour and delivery attendees whose HIV status is known.</p> <p>Programme managers may use additional subnational and facility level indicators to measure trends and progress in testing and counselling, such as uptake of testing and receipt of results.</p> <p>This indicator could be validated in population-based surveys, such as demographic and health surveys or multiple indicator cluster surveys, which are generally conducted every 3–5 years, or the ‘AIDS indicator survey’, a population-based survey that can be performed more frequently.</p>
Data utilization	<p>Look at trends overtime. If disaggregated data is available by region, see whether any lower performing areas can be identified. Review if data is available on % of ANC attendees who know their status (including those with previously confirmed HIV status and those tested) and % of L&D attendees who know their status.</p>
Data Quality Control and Notes for the Reporting Tool	<ul style="list-style-type: none"> • Double Reporting: There is a risk of double counting with this indicator, as a pregnant woman can be tested more than once during ANC, L&D, or postpartum. This is particularly true where women get re-tested in different facilities, or where they come to the L&D without documentation of their test. While not feasible to avoid double counting entirely, countries should ensure a data collection and reporting system is in place to minimize it, such as using

patient held and facility held ANC records to document that testing took place.

- Please do not add *all* the number of women tested from ANC *and* L&D to get the *total* number of women tested. We are **interested in knowing the number of *women* tested, and not the total number of tests** (i.e. if a women is tested at ANC and again at L&D, we try to only count her once). It is important to include those with previously known HIV infection in the numerator - even if they do not receive an HIV test, their HIV infection is identified for subsequent PMTCT interventions.
- **Number tested, as well as tested and received results:** If available, please report the number of pregnant women tested, as well as the number of pregnant women tested and received results (latter should not exceed the former).
- If your data collection system does not currently separate those with known and unknown HIV status and you are unable to provide the specific disaggregated data, please review the data available, and derive the best data for the number of *pregnant women whose HIV status has been identified* during pregnancy, L&D, or during the post-partum period within 72 hours.
- Please provide any details that would help us interpret your data in the *Comment* section.
- Please comment on the source of your denominator.

I11 Percentage of HIV-infected pregnant women assessed for ART eligibility through either CD4 testing or clinical staging	
Rationale	HIV-infected pregnant women who meet the clinical and (when available) immunological criteria for antiretroviral therapy should receive it. Antiretroviral therapy helps to keep HIV-infected pregnant woman alive and healthy and reduces the risk for mother-to-child transmission. Services for the prevention of mother-to-child transmission of HIV should undertake such assessments. Women who are not yet eligible for antiretroviral therapy should receive antiretroviral drug prophylaxis for prevention of mother-to-child transmission of HIV according to the national guidelines and recommendations.
What it measures	Coverage of eligibility assessment for antiretroviral therapy among HIV-infected pregnant women, either clinically by WHO clinical staging criteria or immunologically by CD4 testing. Assessments can be made on site or by referral.
Numerator	<p>Number of HIV-infected pregnant women attending services for prevention of mother-to-child transmission of HIV in the past 12 months assessed for eligibility for antiretroviral therapy by either clinical staging or CD4 testing, on site or by referral.</p> <p>'On site' means that the service is offered in a health facility structure or compound. For instance, HIV testing may be available in the antenatal care unit, while antiretroviral drugs for prevention of mother-to-child transmission of HIV are available in the antiretroviral therapy pharmacy unit in the same health facility. Both these services are considered to be on site.</p> <p>Referral can be made on site or off site and is defined as sending a patient to a different service unit, health provider or health facility. Often, patients return to the original health facility, service unit or provider, the services received at the referral site are fed back to the original site, and the patient continues with follow-up care. Referral facilities should document the services provided and patient outcomes.</p> <p>This indicator should be disaggregated by type of assessment (clinical staging or CD4 testing). Women who were assessed by clinical staging and a CD4 test should be counted only once as having been assessed by CD4 testing.</p>
Denominator	Estimated number of HIV-infected pregnant women in the past 12 months
How to Measure and Measurement Tools	<p>The numerator is calculated from national programme records aggregated from facility registers.</p> <p>Assessment can be conducted in antenatal care clinics and HIV care and treatment units, on site or by referral. Data should be aggregated from the appropriate register, with consideration of which registers capture the data, where the assessment actually took place, possible double-counting or under-counting and the need for accurate data for the national level.</p> <p>All public, private and nongovernmental organization-run health facilities that assess eligibility of HIV-infected pregnant women for antiretroviral therapy, either on site or by referral, should be included.</p> <p>Two methods can be used to calculate the denominator:</p> <p>(a) a projection model such as that provided by Spectrum software: use the output "number of pregnant woman needing prevention of mother-to-child</p>

	<p>transmission of HIV"; or</p> <p>multiply the number of women who gave birth in the past 12 months (which can be obtained from estimates of the central statistics office or the United Nations Population Division or pregnancy registration systems with complete data) by the most recent national estimate of HIV prevalence in pregnant women² (which can be derived from HIV sentinel surveillance in antenatal care clinics), if Spectrum projections are unavailable.</p>
Disaggregation	Methods of ART eligibility assessment: CD4 testing or clinical staging,
Strengths and weaknesses	<p>The strength of this indicator is that it allows countries to monitor the extent to which HIV-infected pregnant women are receiving an intervention that is critical for accessing antiretroviral therapy for their own health.</p> <p>It does not capture whether HIV-infected pregnant women who were eligible for antiretroviral therapy actually received it.</p> <p>Although each category is mutually exclusive, there is a risk of double-counting when HIV-infected pregnant women have been assessed both clinically and immunologically or assessed in different units or in a different facility. Countries should ensure that systems are in place to minimize the risk for double-counting.³</p> <p>This indicator does not capture women who have been identified as HIV-infected at labour and delivery and subsequently assessed for their eligibility for antiretroviral therapy.</p> <p>The value of this indicator could be underestimated when women are referred to another facility and their data are not aggregated.</p>
Additional considerations	<p>It is recommended that countries disaggregate the numerator by eligibility status for additional information on national trends in the percentage of pregnant women who are eligible for ART (eligible/ non-eligible). Further suggested to disaggregate between pregnant women arriving before and during labour (for programmatic application).</p> <p>It is recommended that countries disaggregate by eligibility status for additional information on national trends in the percentage of pregnant women who are eligible for antiretroviral therapy.</p> <p>When HIV-infected pregnant women are referred to another health facility or another service unit within the same health facility, health providers should document the referrals and services received by these women in the antenatal care register and on the maternal health card for better patient tracking and monitoring.</p>
Data utilization	The goal is to aim for 100%; once 100% is reached routinely, this indicator may become obsolete. Explore further information on disaggregated data on whether eligibility was assessed through CD4 tests or clinical staging and any data available on how long it takes to receive a CD4 test result in various settings.
Data Quality Control and Notes for the Reporting Tool	Please provide any comments that would help us interpret the data.

I13 Percentage of infants born to HIV-infected women (HIV-exposed infants) receiving antiretroviral prophylaxis to reduce the risk for mother-to-child transmission (by regimen: single- or multi-drug)	
Rationale	The risk for mother-to-child transmission can be significantly reduced by the complementary approaches of providing antiretroviral medicines (as treatment or as prophylaxis) for the mother with antiretroviral prophylaxis for the infant and use of safe delivery practices and safer infant feeding.
What it measures	Progress in the prevention of mother-to-child transmission by the provision of antiretroviral prophylaxis for HIV-exposed infants
Numerator	Number of infants born to HIV-infected women during the past 12 months who were started on antiretroviral prophylaxis within 72 h of birth to reduce mother-to-child transmission. The numerator consists of two groups: <ul style="list-style-type: none"> (a) those given a single antiretroviral drug regimen and (b) those given a combination of two or more antiretroviral drugs.
Denominator	Estimated number of live births to pregnant HIV-infected women in the last 12 months
How to Measure and Measurement Tools	<p>The numerator is calculated from national programme records aggregated from facility registers.</p> <p>Antiretroviral drugs can be given to HIV-exposed infants shortly after delivery,¹ at facilities for labour and delivery for infants born at facilities, at outpatient postnatal care or child clinics for infants born at home and brought to the facility within 72 h, or at HIV care and treatment or other sites, depending on the country.</p> <p>Three methods for calculating the numerator can be considered:</p> <p>Counting at the point of antiretroviral drug provision: In settings with low facility delivery rates, data for the numerator should be compiled from the sites where antiretroviral drugs are dispensed and where the data are recorded. There is a risk of double-counting when antiretroviral drugs are provided during more than one visit or at different health facilities. Countries should establish data collection and reporting systems to minimize double-counting.</p> <p>Counting at the time of labour and delivery: In settings where a high proportion of women give birth in health facilities, countries can estimate the numerator from only the labour and delivery register, by counting the number of HIV-exposed infants who received a specific antiretroviral drug regimen before discharge from the labour and delivery ward. This may be the most reliable and accurate method for calculating this indicator in settings with a high proportion of facility deliveries, as the corresponding antiretroviral drug regimen dispensed is counted at the time of provision to the infant.</p> <p>Counting at postnatal or child health sites: Countries can count and aggregate the number of HIV-exposed infants who received a specific antiretroviral drug regimen within 72 h of birth recorded at postnatal or child health clinics if attendance is high and the exposure status of the child and any antiretroviral drug regimen taken is likely to be known (e.g. from postnatal registers or stand-alone or integrated HIV-exposed infant registers).</p> <p>All public, private and nongovernmental organization-run health facilities that provide antiretroviral drugs to HIV-exposed infants for the prevention of mother-to-child transmission of HIV should be included.</p> <p>Two methods can be used to estimate the denominator:</p> <ul style="list-style-type: none"> (a) a projection model, such as that provided by Spectrum software; use the

	<p>output "number of pregnant woman needing prevention of mother-to-child transmission of HIV" as a proxy; or</p> <p>(b) multiply the number of women who gave birth in the past 12 months (which can be obtained from estimates by central statistics office or the United Nations Population Division or pregnancy registration systems with complete data) by the most recent national estimate of HIV prevalence in pregnant women (which can be derived from HIV sentinel surveillance in antenatal care clinics), if Spectrum projections are unavailable.</p> <p>If there are data on the number of live births, they should be adjusted to derive a better proxy.</p>
Disaggregation	By regimen: single drug ARV, combination of 2 ARVs
Strengths and weaknesses	<p>This indicator allows countries to monitor their coverage with antiretroviral drug regimens dispensed or initiated among HIV-exposed infants to reduce the risk for maternal HIV transmission.</p> <p>The indicator is a measure of the extent to which antiretroviral drugs were dispensed for infants as prophylaxis. As it does not capture whether the drugs were taken, it is not possible to determine adherence to the regimen or whether the regimen was completed. This is particularly true for infants on 1–4 weeks of zidovudine, who cannot be confirmed to have completed their prophylaxis.</p> <p>Only the infant dose is captured by this indicator.</p>
Additional considerations	<p>Countries are encouraged to track and report on the actual or estimated percent distribution of the various regimens provided so that the impact of ARVs on mother-to-child-transmission can be modelled based on the efficacy of corresponding regimens.</p> <p>Although countries may not have a system in place yet to collect and report coverage of antiretroviral drug provision for prevention of mother-to-child transmission by the various regimen possibilities, the goal should be towards setting up such a system.</p> <p>Countries that have developed mechanisms for reaching HIV-exposed infants at the community level with ARVs will want to ensure a system of data collection is in place for reporting infants receiving ARV regimens at the community level.</p> <p>ARV regimens to reduce mother-to-child transmission should be accompanied by an appropriate postpartum regimen for the mother and for the infant. Where possible, countries should track and report on whether the maternal regimen has been provided before, during, and after delivery.</p>
Data utilization	Compare the indicator value with coverage of the maternal ARV regimen and discuss what the data may mean in the country context. Some countries may want to explore further and do a linked review of the infant ARV prophylaxis regimen against which the maternal ARV regimen can be assessed.
Data Quality Control and Notes for the Reporting Tool	Please provide any comments that would help us interpret the data.

I14 Percentage of infants born to HIV-infected women started on cotrimoxazole (CTX) prophylaxis within two months of birth	
Rationale	<p>Co-trimoxazole prophylaxis is a simple, cost-effective intervention to prevent <i>Pneumocystis carinii</i> pneumonia in HIV-infected infants. This infection is the leading cause of serious respiratory disease in these infants in resource-constrained countries and often occurs before HIV infection can be diagnosed.</p> <p>Owing to resource and logistical constraints in diagnosing HIV infection in young infants, all infants born to HIV-infected women should receive co-trimoxazole prophylaxis, starting 4–6 weeks after birth and continuing until HIV infection has been excluded and the infant is no longer at risk of acquiring HIV through breastfeeding.</p>
What it measures	The provision and coverage of co-trimoxazole prophylaxis for HIV-exposed infants in line with international guidelines ¹
Numerator	Number of infants born to HIV-infected women started on co-trimoxazole prophylaxis within 2 months of birth in the past 12 months
Denominator	<p>Estimated number of HIV-infected pregnant women who gave birth in the past 12 months</p> <p>This is a proxy measure for the number of infants born to HIV-infected women.</p>
How to Measure and Measurement Tools	<p>The numerator is calculated from national programme records aggregated from facility registers.</p> <p>Data should be aggregated from the appropriate facility registers, such as a stand-alone or integrated HIV-exposed infant register. The register used may depend on where services are offered. For example, where HIV-exposed infants are followed by health workers in HIV care and treatment facilities, countries could aggregate information from a register based at that site.</p> <p>All public, private and nongovernmental organization-run health facilities that provide co-trimoxazole prophylaxis for HIV-exposed infants should be included.</p> <p>Two methods can be used to estimate the denominator:</p> <ul style="list-style-type: none"> (a) a projection model such as that provided by Spectrum software; use the output "number of pregnant woman needing prevention of mother-to-child transmission of HIV" as a proxy; or (b) multiply the total number of women who gave birth in the past 12 months (which can be obtained from central statistics offices or the United Nations Population Division or pregnancy registration systems with complete data) by the most recent national estimate of HIV prevalence in pregnant women² (which can be derived from HIV sentinel surveillance in antenatal care clinic), if Spectrum projections are unavailable. <p>If there are data on the number of live births, they should be adjusted to derive a better proxy.</p>
Disaggregation	None requested
Strengths and weaknesses	This indicator allows countries to monitor progress in the early follow-up of exposed infants by measuring provision of co-trimoxazole in line with international guidelines. It can also be used as a proxy indicator of follow-up visits of exposed infants within the recommended first 4–6 weeks of life.

	<p>The indicator captures only those infants who return for follow-up health care within 2 months of birth. It does not measure the actual coverage with co-trimoxazole prophylaxis for HIV-exposed infants, as some infants may have initiated co-trimoxazole prophylaxis after 2 months.</p> <p>Low values for this indicator could reflect bottlenecks in the system, including poor management of co-trimoxazole supplies in the country, poor data collection or inadequate distribution systems.</p>
Additional considerations	<p>Countries may also wish to document the provision of co-trimoxazole for HIV-exposed infants older than 2 months in order to monitor the overall progress of the programme, to identify challenges in early initiation of co-trimoxazole and to monitor consumption of drug stocks from the point of view of procurement.</p> <p>Inappropriate management of supplies can negatively affect the value of the indicator and significantly reduce the access of HIV-exposed infants to co-trimoxazole. Countries should ensure that they have appropriate systems and tools, particularly for logistics management and information systems, in order to procure, distribute and manage supplies adequately at facility, district and central levels.</p>
Data utilization	<p>Data can also be reviewed as an indication of the number of exposed infants who are seen at a facility within 2 months of birth. If indicator value is low, explore reasons why (e.g. whether exposed-infants are not attending facilities within 2 months, or if there are stockouts of CTX, etc.).</p>
Data Quality Control and Notes for the Reporting Tool	<p>National Representativeness: If this indicator is obtained from a sub-set of facilities, comments should be added regarding the representativeness.</p> <p>Triangulation Options: pharmacy registers</p>

115 Percentage of infants born to HIV-infected women who receive an HIV test within first 12 months of life	
Rationale	Infants infected with HIV during pregnancy, delivery or early postpartum often die before they are recognized as having HIV infection. WHO recommends that national programmes provide virological testing of infants for HIV at 6 weeks or as soon as possible thereafter, to guide clinical decision-making at the earliest possible stage. Where virological testing is unavailable, initial antibody testing at 9–12 months is recommended. ¹
What it measures	The extent to which infants born to HIV-infected women are tested to determine their HIV status within the first 12 months of life, disaggregated by: <ul style="list-style-type: none"> (a) early virological testing within 2 months; or (b) virological testing between 2 and 12 months and initial antibody testing between 9 and 12 months.
Numerator	Number of infants who received an HIV test within 12 months in the past 12 months
Denominator	Estimated number of HIV-infected pregnant women who gave birth in the past 12 months. This is a proxy measure of the number of infants born to HIV-infected women.
How to Measure and Measurement Tools	<p>The numerator is calculated from national programme records compiled from data collected in registers at facilities.</p> <p>The number of infants who were tested (not the number of tests performed) should be counted, as many infants may be tested several times.</p> <p>Data should be aggregated from the appropriate facility registers. The register used depends on the country context. For example, where HIV-exposed infants are followed-up in HIV care and treatment settings, countries may aggregate information from those sites; where HIV-exposed infants are tested in child health settings, countries may also aggregate and report information from those sites. When possible, double-counting should be minimized when aggregating data to produce national data.</p> <p>All public, private and nongovernmental organization-run health facilities that provide HIV testing for HIV-exposed infants should be included.</p> <p>Two methods can be used to estimate the denominator:</p> <ul style="list-style-type: none"> (a) a projection model such as that provided by Spectrum software: use the output "number of pregnant woman needing prevention of mother-to-child transmission of HIV" as a proxy, or (b) multiply the number of women who gave birth in the past 12 months (which can be obtained from the central statistics office or the United Nations Population Division or pregnancy registration systems with complete data) by the most recent national estimate of HIV prevalence in pregnant women (which can be derived from HIV sentinel surveillance in antenatal care clinic), if Spectrum projections are unavailable. <p>If there are data on the number of live births, they should be adjusted to derive a better proxy.</p>
Disaggregation	<p>Type/Timing of first test:</p> <ul style="list-style-type: none"> - infants who received virological testing in the first 2 months of life; and - infants who were tested virologically for the first time between 2 and 12 months of age or who had an antibody test for the first time between 9 and 12 months of age.

	Test results: + / -
Strengths and weaknesses	<p>This indicator allows countries to monitor progress in providing early HIV testing to HIV-exposed infants, which is critical for appropriate follow-up care and treatment.</p> <p>Ideally, the indicator captures infants born to women with known HIV infection, but it may not be feasible in some settings to exclude infants who were tested for HIV by virological or antibody testing by provider-initiated testing in paediatric wards, malnutrition centres and other sites where infants may be identified as HIV-exposed or -infected.</p> <p>The indicator does not capture the number of children with a definitive diagnosis (i.e. of HIV infection or HIV-negative serological status) or measure whether appropriate follow-up services were provided to the child on the basis of an interpretation of the test results.</p> <p>Furthermore, it does not measure the quality of testing or the system in place for testing. A low value could, however, signal system weaknesses, including poor national management of supplies of HIV test kits, poor data collection or poor management of testing samples.</p>
Additional considerations for countries	<p>While early virological testing is critical for identifying infected infants, it is important that countries improve the quality of follow-up of HIV-exposed infants and train health providers to recognize the signs and symptoms of early HIV infection in exposed infants, particularly where access to virological testing is limited.</p> <p>In countries that have scaled up provider-initiated testing of infants with unknown HIV exposure status in malnutrition centres, paediatric wards, vaccination or maternal and child health clinics, consideration should be given to measuring the numbers of infants in whom an HIV test was performed through this mechanism separately.</p> <p>Inappropriate management of supplies can negatively affect the value of the indicator and significantly reduce access to HIV testing for infants born to HIV-infected women. Countries should ensure that appropriate systems and tools, particularly for logistics management and information systems, are in place to procure, distribute and manage supplies at facility, district and central levels.</p>
Data utilization	<p>If coverage is low, explore reasons why. Special attention to the disaggregated categories, particularly the % exposed infants receiving a virological test within 2 months of birth. If disaggregated data are available, review data and identify specific bottlenecks to overcome to increase the coverage among infants.</p>
Data Quality Control and Notes for the Reporting Tool	<ul style="list-style-type: none"> ● Double Reporting: Although exposed infants can be tested multiple times, we are interested in capturing the <i>number</i> of infants tested, and whether they received an HIV test within the first 12 months, and if so, whether it was a virological test within the first 2 months (approx range acceptable 4-8 weeks) or later within the 12 months. ● Test Results: In the comments section, please report data by serostatus (<u>number HIV+, HIV-</u>) if available. ● Please provide any relevant information that would allow us to better interpret the data reported

116 Distribution of feeding practices ⁶ (exclusive breastfeeding, replacement feeding, mixed feeding/other) for infants born to HIV-infected women at DPT3 visit	
Rationale	<p>HIV can be transmitted during breastfeeding even in settings where 100% of pregnant women in need receive antiretroviral medicines for prevention of mother-to-child transmission of HIV. Mixed feeding before 6 months of age increases the risk for HIV transmission when compared with exclusive breastfeeding. WHO therefore recommends exclusive breastfeeding for 6 months unless replacement feeding is acceptable, feasible, affordable, sustainable and safe. After 6 months, exclusive breastfeeding or giving only formula is no longer recommended, as infants and young children need complementary foods.</p> <p>Coverage with the third dose of diphtheria, pertussis and tetanus vaccine close to the recommended age of 14 weeks is high in most countries. It is proposed to collect data at this time because most infants are seen then and it is mid-way between birth and the time at which exclusive breastfeeding would stop, making it comparable to the way that exclusive breastfeeding is usually reported for the general population in demographic and health surveys.</p>
What it measures	Feeding of HIV-exposed infants, derived from 24-h recall, measured at the time of the third dose of diphtheria, pertussis and tetanus vaccine (DPT3), which is often around 3 months of age or at the closest visit after 3 months.
Numerator	<p>The numerators are disaggregated as follows:</p> <ul style="list-style-type: none"> a: Number of HIV-exposed infants who were exclusively breastfeeding at or around the DPT3 visit b: Number of HIV-exposed infants who received replacement feeding at or around the DPT3 visit c: Number of HIV-exposed infants who received mixed feeding at or around the DPT3 visit <p>The numerators capture feeding practices only for known HIV-exposed infants who visit a health facility.</p>
Denominator	<p>The denominator is the same for all three indicators: the number of HIV-exposed infants whose feeding practice has been assessed at a DPT3 visit.</p> <p>Infants will be aged around 3 months or more.</p>
How to Measure and Measurement Tools	<p>The numerators are calculated from national programme records aggregated from facility registers.</p> <p>Ideally, data from appropriate sites and registers such as a stand-alone or integrated HIV-exposed infant registers should be aggregated, depending on</p>

⁶ The infant feeding practices measured with this indicator are defined as follows:

Exclusive breastfeeding. An infant receives only breast milk and no other liquids or solids, not even water, with the exception of drops or syrups consisting of vitamins, mineral supplements or medicines, for up to 6 months. Breast milk is defined as including milk from a wet nurse and a mother's expressed milk.

Replacement feeding (no breast milk at all): Feeding an infant who is not receiving any breast milk a diet that provides all the necessary nutrients until the child is fully fed on family foods. During the first 6 months, the food should be a suitable breast-milk substitute, which is usually a commercial infant formula, as home-modified animal milk is no longer recommended for feeding infants during the entire first 6 months of life, except as an emergency measure.

Mixed feeding. Feeding both breast milk and other foods or liquids to infants for 0–6 months. After 6 months, exclusive breastfeeding or giving only formula is no longer recommended.

	<p>where the services are and where data are recorded.</p> <p>At each visit, the health-care provider should enquire about infant-feeding practices during the previous 24 h, by asking: "What did you give your infant to eat or drink yesterday during the day and during the night?" After each response, the health provider should ask: "Anything else?" The response will be recorded as exclusive breastfeeding, replacement feeding or mixed feeding. While this information is collected and recorded on the child health card at every visit, providers should record it in the register only once, during the third visit for diphtheria, pertussis and tetanus vaccination. This record will be used for compilation and reporting to national level.</p> <p>The denominator is calculated from the total number of exposed infants whose feeding was assessed. Exposed infants who did not attend facilities are not included in the denominator.</p> <p>All public, private and nongovernmental organization-run health facilities that provide HIV-exposed infant follow-up services should be included.</p>
Disaggregation	By feeding practices
Strengths and weaknesses	<p>The indicators measure progress in safer infant-feeding practices by HIV-infected women. They can also be used to indicate the quality of counselling on infant feeding (low rates of mixed feeding are likely to indicate adequate counselling and support) and to model the effect of the intervention in a country (see core indicator 10). The indicators give no information about the quality of the replacement feeding given or the effect of the feeding practices on child survival.</p> <p>The information can be compared with that from population surveys (e.g. demographic and health surveys) to monitor infant-feeding practices in the general population.</p> <p>The indicators may not reflect the actual distribution of feeding practices for HIV-exposed infants at national level, as they do not include HIV-exposed infants who have died, infants whose exposure status is unknown or HIV-exposed infants whose mothers did not attend a facility with their infant for the third dose of diphtheria, pertussis and tetanus vaccine or for another reason at or around 3 months.</p>
Additional considerations	<p>To fully understand the distribution and types of infant-feeding practices, countries may consider conducting studies of a cohort of HIV-infected women who choose replacement feeding or exclusive breastfeeding. Such studies would not only measure infant-feeding practices but could also examine the reasons why women who have chosen one practice are or are not practising their option exclusively and whether acceptable, feasible, affordable, sustainable and safe criteria were used. Such studies could also examine the types of foods and liquids given to infants in addition to breast milk or formula before 6 months and the reasons for cessation of breastfeeding at 6 months and complementary feeding after that time. The studies could also examine the impact of early infant diagnosis on infant-feeding practices and, if the impact is negative, what can be done to support mothers at this time.</p> <p>In countries where follow-up care for HIV-exposed infants has been integrated into community outreach services, a system for collecting data at community level should be established for this indicator.</p> <p>Countries may wish to consider collecting this information at other times, for</p>

	example at both 6 weeks and 6 months. They may also wish to calculate the indicators with different denominators, such as the estimated number of HIV-exposed infants who should have received follow-up care.
Data utilization	Review the distribution of infant feeding practice and discuss strategies to move towards safer practices.
Data Quality Control and Notes for the Reporting Tool	<ul style="list-style-type: none"> • Please provide any relevant information that would allow us to better interpret the data reported • If this data is not available, please provide an estimate of the distribution of IF practice among HIV+ women in the country in the <i>Comments</i> section.