National Monitoring and Evaluation Guidelines for STI, HIV and AIDS control activities in Bhutan

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TABLE OF CONTENTS:

1. Introduction 3

2. Background 4

2.1 HIV epidemic situation in Bhutan 4
2.2 Target populations 5
2.3 National response 6

3. Objectives of Monitoring and Evaluation 6

4. General principles of Monitoring and Evaluation 7

4.1 Definitions 7
4.2 Type of indicators 8
4.3 Overarching principle: The "Three Ones" 8
4.4 Selecting core indicators for Bhutan 9

5. Framework for integrated Monitoring and Evaluation of the national response to HIV and AIDS in Bhutan 10

6. Monitoring and Evaluation system in Bhutan 13

6.1 Current status of the HIV and AIDS M&E activities in Bhutan 14
6.2 Strengthening reporting levels and information flow 15
6.3 Developing data-generation, recording and reporting for routine monitoring 16
6.4 Strengthening HIV sero and behavioural surveillance 18
6.5 Linking with the Health Management Information System 19
6.6 Supervision and quality-control of information 19
6.7 Dissemination of information and retro-information 20

7. Coordination mechanisms for M&E 20

7.1 Coordination at district level 20
7.2 Coordination at central level 21

8. Summary of roles and responsibilities 21

9. Annex 1: forms 23

10. Annex 2: Indicator definitions 28

ACRONYMS

AIDS	Acquired Immune Disease Syndrome
ANC	Antenatal care
ART	Antiretroviral treatment
ARV	Antiretroviral
BHU	Basic health unit
DHO	District health office
DMO	District medical officer
GFATM	Global Fund to Fight AIDS, TB and Malaria
HA	Health assistant
HISC	Health Information Service Center
HIV	Human Immunodeficiency Virus
HMIS	Health Management Information System
IDU	Injecting drug-users
IPD	In-patient department
MARP	Most at risk population
MDG	Millennium Development Goal
M&E	Monitoring and evaluation
MSM	Men having sex with men
MSTF	Multi-Sectoral Task Force
NACP	National AIDS Control Program
NGO	Non-governmental organization
NHAC	National HIV/AIDS Commission
NSP	National Strategic Plan
OPD	Out-patient department
STI	Sexually transmitted Infections
SW	Sex workers
T&C	Testing and Counseling
TB	Tuberculosis
UNAIDS	Joint United Nations Programme on HIV/AIDS
UNGASS	United National General Assembly Special Session on HIV/AIDS
VCT	Voluntary Counselling and Testing
WHO	World Health Organization

FORWORD

A growing number of partners and stakeholders are involved in a range of prevention and care activities and programs across Bhutan in response to the HIV epidemic. This reflects commitment towards containing the HIV epidemic in the country.

Keeping track of trends over time improves our understanding of the HIV epidemic, of risk factors that are driving its evolution and helps us in measuring the impact of the efforts on HIV epidemic in the country. A functional monitoring and evaluation system strengthens HIV related strategic information and supports evidence based programming.

The National Monitoring and Evaluation Strategy and Guidelines, developed in consultation with technical partners in response to HIV as well as donor organizations. I am grateful to those who have participated individually and institutionally in developing this guideline.

I sincerely hope that this guideline will strengthen the HIV/AIDS strategic Information for Bhutan.

Dr. Gado Tshering

Secretary, Ministry of Health

Introduction: the National Strategic Plan

The overall goal of the National Strategic Plan (NSP) for HIV/AIDS and STI in Bhutan is to achieve the Millennium Development Goal (MDG) of reversing and halting the spread of HIV and AIDS by 2015. [1] Five priority strategies have been developed:

1. Enhancing the prevention of STI and HIV transmission,
2. Enhancing access to treatment, care and support for people living with HIV and AIDS (PLWHA),
3. Creating a supportive environment for women and men living with or affected by HIV and AIDS,
4. Creating and enabling environment for successful implementation of the national response to HIV, AIDS and STI,
5. Generating strategic information for evidence-based action.

The National Monitoring and Evaluation (M&E) framework has been developed to track progress in the development of the NSP and in results achieved. It contains a list of 25 ***core Indicators*** that;

- Allows the Government of Bhutan, the Ministry of Health and other line ministries to monitor trends in the HIV/AIDS epidemics,
- Provides information to program managers and health care providers at all levels to track their work and observe its effects,
- Provides the basis for monitoring the national program and the contributions of other major donor-funded projects (e.g., The World Bank and Global Fund) toward it including measures of program impact and outcome,
- Permits reporting to multi-national entities on the outcomes of major national commitments (e.g., Millennium Development Goals, UNGASS).

Regarding the increasing number of interventions and programs by the various organisations involved, this M&E framework spells out the modalities and means by which all partners involved in the response to HIV in Bhutan contribute to One National M&E system by developing sustainable in country M&E capacity for programme improvement, coordination and management, accountability and information sharing.

1 *National Strategic Plan for the Prevention and Control of STIs and HIV and AIDS. Royal Government of Bhutan. 2008.*

Background

1.1 HIV epidemic situation in Bhutan

The first case of HIV was detected in the Kingdom in 1993 through routine medical screening. Since then, infected cases detected through various clinical and laboratory testing programmes have continued to increase. As of February 2008, the National STD, HIV and AIDS Prevention and Control Programme (NACP) reports a cumulative total of 144 persons who have tested positive for HIV. A total of 25 deaths have been reported among the infected Bhutanese population (17 males and 8 females; 23 AIDS related and 2 from other causes). Currently, there are 109 people living with HIV and AIDS in the country (105 Bhutanese and 4 non-Bhutanese). These cases are spread across 15 of Bhutan's 20 districts. Among the 144 HIV cases reported, 71 (49%) were female and almost 80% of infections occurred to people 15 to 39 years old. The mode of transmission was heterosexual in 89% and from mother-to-child in 9%. Two cases were reported among injecting drug users. Only 9% were identified after self-initiating Voluntary Counselling and Testing (VCT) while a large number were detected after developing health problems in the late stage of the disease.

Bhutan is experiencing a low level epidemic. On-going case monitoring and sentinel surveillance surveys yield too few cases to make clear statistical distinctions between groups (table 1). As a result, Bhutan continues to struggle with the definition of its most at risk populations. In Bhutan, as in most places, it is not appropriate to talk about one HIV and AIDS epidemic. Rather, it is likely that there are multiple epidemics occurring among different groups of people. These different groups will have different behaviors that put them at risk of HIV, e.g., sharing needles, multiple partners, higher risk sex. Other behaviors may drive the spread of HIV in the general population, for example, multiple, concurrent, intergenerational or transactional sex.

Table 1: Results of passive sero-surveillance in Bhutan in 2006

Population group	Number of tests done	Number of tests HIV+	Estimated prevalence (%)
ANC attendees	**4,831**	1	0.02
STI patients	868	0	0
TB patients	188	0	0
Armed forces	2,616	3	0.11
Migrant workers	586	0	0
Sex workers	1	0	0
Total surveyed	11,775	6	0.05

Existing evidence suggests that cases are more broadly spread across society and the profile of the at-risk groups may include groups such as educated elites, civil servants, mobile workers and men in the army. It is important to take advantage of this early phase of the epidemic to understand what behaviors stand to drive epidemic spread in Bhutan and to allow more efficient and effective targeting of resources. It is also important to document direct makers of sexual transmission among the general population, to alert on the risk of HIV transmission, by the strengthening of Sexually Transmitted Infections (STI) surveillance. Rates of STI are high in Bhutan but the true magnitude of the problem is incompletely documented.

1.2 Target populations

The National Strategic Plan primarily focus on prevention targeted at the general population with additional focus on population groups considered most at risk:

- Youths (both boys and girls in and out-of-schools)
- Sex workers (SW) and their clients
- Men who have sex with men (MSM)
- Uniformed personnel
- Mobile and migrants workers
- Substance abusers
- Prisoners
- Women and men working in the tourism industry.

Reaching those populations requires to strengthen community-based interventions. That will improve the understanding of the driving factors and of the high risk populations in the front line of HIV. It is crucial for the M&E to capture the interventions offered to those populations at community level, in addition to the interventions offered in health services.

1.3 National response

Since 2001, a mulisectoral response has been strengthened in Bhutan. Multi-sectoral Task Forces (MSTF) were established in all twenty Dzongkhags and at Gewog levels. They include representatives of all governmental sectors, elected representatives, NGOs and community based organizations (CBO), including religious leaders, private sector, People Living With HIV/AIDS (PLWHA) and community leaders. Their key responsibilities are:

- Coordinating, implementing and monitoring the approved work plans;
- Supporting and collaborating with local communities and non-government organizations (NGOs) in implementing HIV and AIDS activities in their Dzongkhag;
- Facilitating participation of PLWHA.

The National HIV/AIDS Commission (NHAC) was constituted in 2004 as the coordinating body for the national response. The National STI and HIV and AIDS Prevention and Control Programme (NACP), under the Department of Public Health in the Ministry of Health (MoH) acts as the key coordinator for the HIV and AIDS response under the guidance of the NHAC. The NACP is specifically in charge of the M&E of the multi-sectoral response.

2. Objectives of Monitoring and Evaluation

Monitoring and evaluation of activities provide policy makers, implementers and donors with the information to track the epidemic and to assess the extent to which programmes are being implemented and objectives achieved.

Tracking progress on programme requires Monitoring and Evaluation situated at different levels:

- To monitor results in terms of outcomes and impact on behaviours and on the epidemic
- to monitor input resources and outputs contributing to the programme
- to evaluate all aspects of key areas of the programme

Monitoring and evaluation of the National Programme aims to track what is being done and whether the programme is making a difference. Surveillance, monitoring and evaluation all play a role in improving information to help assess trends in the epidemic(s) and establish links between programme work and resources, and the goals the programme is trying to achieve. A further advantage of M&E is its contribution to co-ordination as monitoring and evaluation promotes discussion and communication between different groups involved in the national response to HIV.

Monitoring and evaluation aims to monitor the progress of HIV programme implementation, to identify problems, to refine, rectify or adapt their strategies, to assess effectiveness, impact, cost-effectiveness and sustainability. Most M&E indicators however simply measure trends over time but are not designed to explain why a situation has or has not changed.

3. General principles of Monitoring and Evaluation

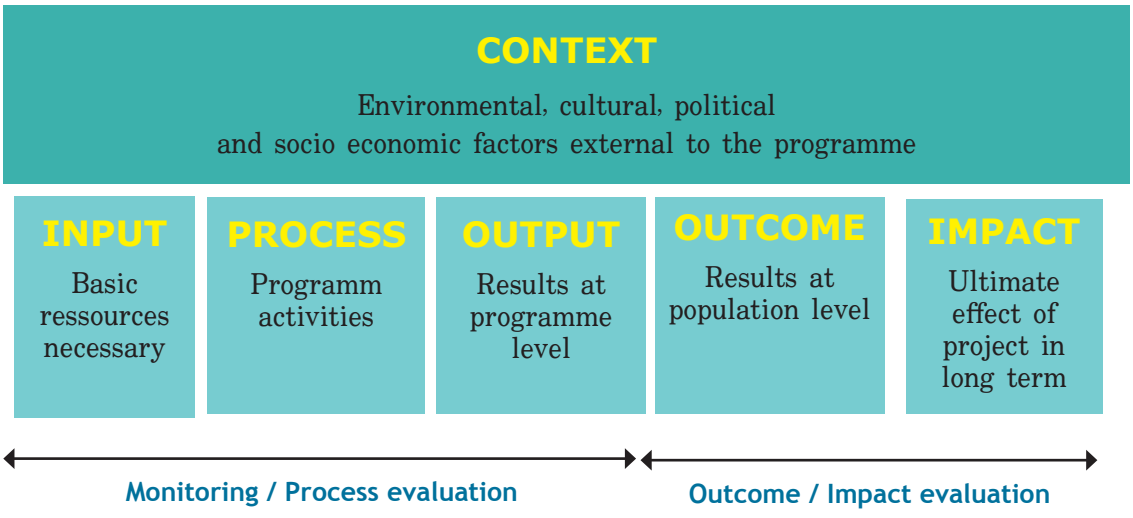
3.1 Definitions

Source: National Programme: a guide to monitoring and evaluation (2000)

- **Monitoring** is the collection and analysis of information on a regular basis. This is usually done internally to assess whether inputs are being used, how well activities are being completed, and whether outputs are being delivered as planned. Key data sources for monitoring are typically internal documents such as tally sheets, record keeping books, monthly/quarterly reports, training records etc.. Monitoring frequently counts the number of people receiving programme services (i.e. number of persons receiving pre-test counselling).
- **Evaluation** involves assessment of the worth or value of a programme or collaboration between multiple programmes over time through more detailed analysis of *outcomes*, and, when possible, their *impact* on the target population. Evaluation has the potential to link observed *outcomes* and *impacts* to programme *process*. This is especially true when multiple agencies and programmes are working together and it is difficult to measure the *impact* of efforts by individual partners; in these cases impact measures may be inferred based on combined programme inputs, processes and outputs. Evaluations are usually conducted by both outsiders and insiders to help stakeholders and decision-makers learn and apply lessons to strengthen interventions.
- **Surveillance** is the routine tracking of disease (disease surveillance) or risk behaviour (behavioural surveillance) using the same data collection system over time. Surveillance helps describe the epidemic and its spread, and can contribute to predicting future trends and targeting needed prevention programmes. In the case of HIV, surveillance typically tracks impact in terms of HIV and sometimes STI prevalence, and outcomes in terms of risk behaviour.

3.2 Type of indicators

Figure: The Monitoring and Evaluation framework



- **Inputs** refer to the financial, material, and human resources invested in the projects and services contributing to the National Programme.
- **Processes** are the types of activities that the programme will undertake, such as training, HIV tests, or drugs for treatment.
- **Outputs** refer to the **deliverables of the programme processes,** such as the number of persons served (i.e. number of clients tested for HIV) or the percent of 15-24 year old who report accessing VCT in last 12 months, or improved knowledge and attitudes among specific target populations.
- **Outcomes** refer to the intermediate effects of the programme which refer to changes in behaviour, such as the increase in the percent of Injecting Drug Users (IDU) who use clean needles, or an increase in the percentage of 15-24 year olds who used a condom at last high risk sex, or increase in percentage of people receiving Anti Retro Viral treatment.
- **Impact** refers ultimately to changes in health status and reduction in the transmission of HIV.

3.3 Overarching principle: The "Three Ones"

- One agreed HIV and AIDS action framework (providing the basis for coordinating the work of all partners) ⇒ **National Strategic Plan**
- One national AIDS coordinating authority (with broad-based multi-sector mandate) ⇒ **NHAC**
- One country-level Monitoring and Evaluation system ⇒ **M&E framework**

Expanding partnerships, resources and support for the response call for strengthening the coordination through the 3 ones. A unique M&E system, the "third one" ensures that:

- Collection of data is based on national needs rather than those of individual donors, thus avoiding vertical and isolated initiatives with the risk of duplication of resources,
- Higher quality, relevant, accurate and timely data is produced to provide evidence for programming,
- Data and resources are used efficiently and effectively,
- Reports to international bodies are submitted under a unified global effort,
- Transparency, coordination and communication among different groups involved in the response to AIDS is increased.

3.4 Selecting core indicators for Bhutan

The core set of indicators for the National Programme includes Impact, Outcome and Process level measures. "The choice of indicators should be driven by the objectives, goals and activities which constitute the national response to HIV and by the local epidemiology and nature of HIV risk behaviours, keeping in mind that it costs time and money to collect and analyse data for each indicator" (UNAIDS, 2000).

They have been selected to ensure that the national programme can report on essential elements of the national response to HIV/AIDS in Bhutan. Indicators used in other major programme initiatives in Bhutan (World Bank, GFATM) and the region were reviewed to ensure consistency and standardisation. Extensive reference to and standardisation with international indicators produced by UNGASS, WHO, UNAIDS has been made; importantly the core indicators include those agreed on by UNGASS.

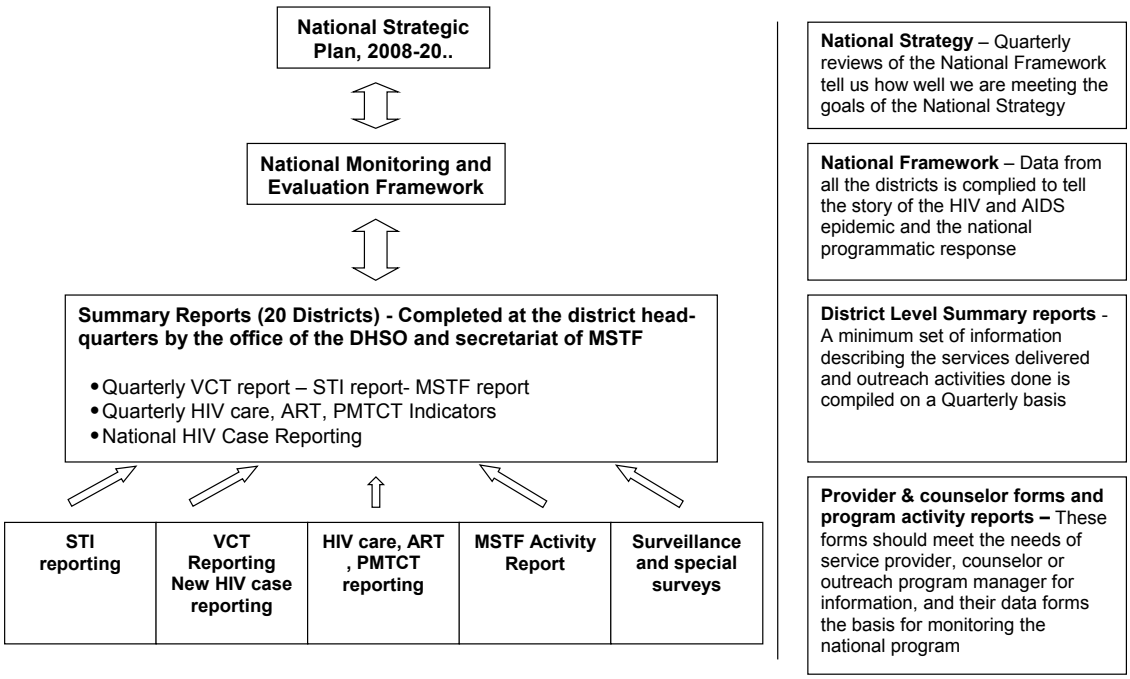
4. Framework for integrated Monitoring and Evaluation of the national response to HIV and AIDS in Bhutan

Obj NSP	Type of indicator	Core indicators	Source Of reporting	Data collection	Data Compilation/ analysis	Frequency	
Overall Goal: Reverse and halt the spread of HIV and AIDS by 2015							
	Impact	Number of women and men infected with HIV (by age esp young people, sex, mode of transmission, districts)	Routine data	Focal person/ DHSO	NACP/MoH	Quarterly	
	Impact	Number of new cases of AIDS reported (age, sex, districts)	Routine data	Focal person/ DHSO	NACP/MoH	Quarterly	
	Impact	Number of young women and men aged 15-24 who are HIV infected	Routine data	Focal person/ DHSO	NACP/MoH	Quarterly	
	Impact	Percentage of women and men aged 15-49 who are HIV infected	Sentinel surveillance		NACP/MoH	Every 2 years	UNGASS
	Outcome	(Number/percent) of adults and children with HIV known to be on treatment 12 months after initiation of antiretroviral therapy (by sex)	ART monitoring data form the sites	Focal person/ DHSO	NACP/MoH	Quarterly	UNGASS
	Impact	Percentage of most-at-risk populations who are HIV infected (STI patients, SWs & clients, Uniformed services)	Sentinel surveillance		NACP/MoH	Annually	UNGASS
	Behaviour						
	Outcome	Percentage of women and men aged 15-49 and 15-24 who have had sexual intercourse with more than one partner in the last 12 months	General Population survey		NACP/MoH	Every 3 years	UNGASS
	Outcome	Percentage of women and men aged 15-49 and 15-24 who had more than one partner in the past 12 months reporting the use of a condom during their last sexual intercourse	General Population survey		NACP/MoH	Every 3 years	UNGASS
	Outcome	Percentage of most-at-risk populations reporting the use of a condom with their most recent non-regular sex partner (SWs & clients, STI patients Uniformed personnel, truckers; sex; age)	Behavioural surveillance		NACP/MoH	Every 2-3 years	UNGASS

	Knowledge						
	Outcome	Percentage of women and men aged 15-49 and young women and men aged 15-24 who both correctly identify ways of preventing sexual transmission of HIV and who reject major misconceptions about transmission	General population survey/ other surveys		NACP/MoH	Every 3 year	UNGASS
	Outcome	Percentage of most-at-risk populations who both correctly identify ways of preventing sexual transmission of HIV and who reject major misconceptions about transmission (SWs & clients, STI patients Uniformed personnel, truckers; sex; age)	Behavioural surveillance		NACP/MoH	Every 3 years	UNGASS
	Prevention (targeted)						
	Process/ Output	Number of condoms distributed for HIV prevention	Routine data	Member secretary MSTFs	NACP/MoH	Quarterly	World Bank
	Outcome	Percent of donated blood units screened for HIV in a quality-assured manner	Routine data	Blood bank register	NACP/MoH	Quarterly	UNGASS
	Outcome	Number and percentage of most-at-risk populations reached with targeted HIV prevention (SWs & clients, STI patients Uniformed personnel, truckers; sex; age)	Routine data Behavioural surveillance	Armed forces; NGOs; other relevant sectors (e.g. MoLHR, MoEA, MoIC, tc.)	Member secretary MSTFs NACP/MoH;	Quarterly	UNGASS
	STI treatment						
	Outcome	Number of people diagnosed and treated for STIs (age, sex)	Routine data	Focal person/ DHO	NACP/MoH	Quarterly;	
	Outcome	Percentage of pregnant women tested for syphilis & prevalance	Routine data	Focal person/ DHO	Reproductive health	Annually	WHO
Strategy 2: Enhancing access to treatment, care and support for people living with HIV and AIDS							
	Counselling and testing						
	Outcome	(Number/ percent) of women and men aged 15-49 and young women and men aged 15-24 who received a HIV test in the last 12 months and who know their result	General population survey Routine VCT monitoring		NACP/MoH	Every 3 years Every quarter	UNGASS
	Outcome	Percentage of most-at-risk populations who received a HIV test in the last 12 months and know their results (SWs & clients, STI patients Uniformed personnel, truckers; sex; age)	Behavioural Surveillance		NACP/MoH	Every 2-3 year	UNGASS

	Prevention of MTCT						
	Outcome	(Number/percent) of HIV-positive pregnant women who received antiretroviral drugs to reduce the risk of mother-to-child transmission	Routine programme reporting	Focal person/ DHO	NACP/MoH	Quarterly	UNGASS
	Treatment and ART						
	Outcome	(Number/percent) of adults and children with advanced HIV infections currently receiving antiretroviral combination therapy (age, sex)	Routine data	Focal person/ DHO	NACP/MoH	Quarterly	UNGASS
	Outcome	Number of estimated HIV positive incident TB cases that received treatment for TB and HIV	Routine data	TB Program/ NACP/ Focal person/DHO	NACP/MoH	Quarterly	UNGASS
Strategy 3: Creating a supportive environment for women and men living with HIV and AIDS **Strategy 4: Creating an enabling environment for successful implementation of the national response to HIV/AIDS and STI**							
	Process/ output	Number of HIV prevention sessions/ campaigns conducted by Multi-sectoral Taskforces	Routine data	Member secretary MSTFs	MSTFs	Quarterly	
	Process/ output	Number/percentage of schools -grade 7 & above providing life skills based HIV/ AIDS education in the last academic year	Routine data	Member secretary MSTFs	MoE/MSTFs	Annually	UNGASS
	Process/ output	(Number/percent) of service delivery points where VCT is available	Routine data	Member secretary MSTFs	NACP/MoH	Quarterly	WHO
	Process/ Output	Number of health care providers trained in the provision of STI management/ VCT/ prevention of MTCT/ ART, according to national guidelines.	Routine data/ training report	NACP	NACP/MoH	Annually	
Cross-cutting: Keeping Bhutan's commitments toward the global response to HIV and AIDS							
	National commitments	National Composite Policy index	Special study		NACP/MoH	Biennial	UNGASS
	National commitments	Domestic and International AIDS spending by categories and financing	Financial report		NACP/MoH	Annual	UNGASS

5. Monitoring and Evaluation system in Bhutan



5.1 Current status of the HIV and AIDS M&E activities in Bhutan

To track the evolution of the HIV/AIDS epidemic, the National STD and HIV/AIDS Control Program, Ministry of Health has maintained a good balance between sentinel surveillance surveys, data from the Bhutan Health Management Information System (BHMIS), and periodic surveys on special topics.

- Surveillance data has been collected on an annual basis since 1988.
- A robust national Health Management Information System (HMIS) is in place but can be upgraded to include additional information on HIV interventions and services.
- Although not yet fully implemented, a vertical STI reporting form has been designed and with some modification it can serve as the basis for more detailed reporting on HIV and AIDS interventions and services,
- The NACP has also made good use of other reporting streams within the health system (for example, data from the Public Health Laboratory and Pharmacy systems currently provide the data for tracking new cases of HIV and people on ART),
- Finally, a series of special surveys have been used to complement information gaps and they have been particularly useful in gaining an understanding of the factors that put people at risk of HIV.

Yet, the national Strategic Information System for HIV is not yet sufficiently established to capture trends in the epidemic. As cases of HIV have increased on a steady basis, there is a need to step-up efforts to monitor prevalence among adults and among members of suspected at-risk populations.

Although there is good activity level reporting at the field level, the NACP does not currently track aggregate measures of program outcomes or impacts. Many donors (e.g., the Global Fund) now prefer this level of project reporting. They also provide a snap shot for program managers to understand how well the program overall is doing. These types of *Core Indicators* are the mainstays of national monitoring and evaluation frameworks.

Wherever possible, HIV and AIDS reporting will be built into the existing reporting health management information system. However, the NACP has already recognized that it may need to introduce some HIV-specific reporting forms to capture the higher level of information required by the program. Several of the newer service delivery areas, for example, voluntary testing and counseling and prevention of mother to child transmission, have yet to been added to the reporting system. Standardized reporting tools need to be employed at different levels of the system to track the delivery of new HIV-related prevention interventions and services.

The reporting system, once developed, will need to be rolled out to the district level and below. Some capacity building activities will be needed to improve the consistency on reporting from the different projects and parts of the country.

Finally, within Bhutan's decentralized health system, attention will also be paid to increasing the utilization of data at all levels. Currently, the NHAP produces more information that it uses, and much of this information is not conveyed to the Dzongkhag or Geog levels. Information needs to *flow up and down the system,* so that decisions at all levels can be guided by evidence. Simple reporting formats and data summaries were developed to facilitate the freer flow of information.

5.2 Strengthening reporting levels and information flow

At service delivery level, all organizations involved in the multisectoral task force have to report on activities conducted to fuel the "one M&E" system. It includes:

- In the health sector:
    - All health facilities to report on STI
    - Health facilities with Testing and Counselling services, to report on VCT and new HIV case reporting
    - Health facilities taking care and support of PLWHA, to report on HIV care, HAART, PMTCT
- Other multisectoral organizations
    - To report on target population, activities conducted and number of persons reached.

In addition to the routine monitoring of activities delivered, the "one M&E" will be fueled by surveys conducted for surveillance (sero and behavioural surveillance) as well as population-based and ad-hoc surveys that might be conducted.

The flow of information needs to ensure centralization and use of all data at Dzongkhag level. The District Health Officer is in charge of the compilation of data in the health

sector, while the MSTF secretariat is responsible for "documentation of MSTF activities". [2]

The information compiled at district level will be thereafter send to the NACP in charge of the multisectoral M&E for the NHAC.

5.3 Developing data-generation, recording and reporting for routine monitoring

For the track of information, a number of supporting forms have been developed for the routine monitoring of activities. These forms are presented in annexes. It includes:

- Quarterly VCT report
- Quarterly new HIV case report
- Quarterly STI report
- Quarterly report of MSTF activities

Quarterly VCT report

The monitoring of VCT activities have become crucial. Every year more than 10,000 HIV tests are performed for purpose of HIV diagnosis in hospitals in Bhutan. This information is not captured and no monitoring of the quality of testing and counselling services is conducted. The routine monitoring of testing and counseling activities is an invaluable source of information to document the HIV epidemic in Bhutan and the improvement of services.

All departments in hospitals proposing HIV testing (such as reproductive health, TB, out-patient and in-patient department...) as well as other services proposing HIV test (such as stand-alone VCT, military services, basic health units with VCT...) have to report on activities of testing and counseling.

Specific guidelines were developed for the VCT monitoring in Bhutan.[3]

Quarterly new HIV case report

Linked with activities of testing and counseling in health services, all new HIV+ cases have to be reported. This information is one of the major component of the surveillance of the HIV epidemic in the country. Anonymous individual information for all new HIV+ case has to be reported to the Dzongkhag and NACP levels.

Quarterly STI report

STI surveillance is an early warning system of the risk of sexual transmission in the country. The strengthening of STI surveillance is a key issue to document in routine the risk of HIV transmission among the general population.

The quarterly report includes STI syndromic case reporting by age-group and gender as well as syphilis screening and results among pregnant women. The report will be fueled both by out-patient and in-patient services for STI syndromic cases and by reproductive health services for syphilis screening among pregnant women.

2 *Manual for the Dzongkhag Multi-sectoral Task Force (MSTF) for STI & HIV/AIDS prevention and control. Department of Public Health. Royal Government of Bhutan.*

Quarterly report of MSTF activities

At local level, it has become crucial to document HIV prevention activities conducted outside health services, at community level. For this purpose a specific form has been developed to document all activities conducted by the various organizations part of the MSTF. This monitoring will improve the understanding of the target populations reached outside health services.

HIV care, HAART and PMTCT indicators

Additionally, providers taking care of PLWHA have to report on the specific indicators related to HIV care and HAART and on PMTCT. For now, support to secure patient's information (data-recording) were developed (HAART card and PMTCT patient's summary), but specific indicators have not been produced apart from the number of persons receiving HAART or PMTCT. Seeing the limited number of patients (18 on HAART, 3 women receiving PMTCT in 2007), direct mechanisms of support from the NACP might be developed to produce indicators.

Table 2. Summary of supporting forms and level of responsibilities for routine monitoring

	Responsible for data-recording at facility level	Responsible for data-reporting at facility level	Responsible for data-compilation and analysis at district level and transmission to NACP
Quarterly VCT report	▪ All health-care providers (doctors, health assistant, nurses) proposing/prescribing HIV test	▪ District Medical Officer in Hospital ▪ Health Assistant in BHU ▪ Focal person in HISC	District Health Officer
Quarterly new HIV positive cases report	▪ All health-care providers (doctors, health assistant, nurses) proposing/prescribing HIV test	▪ District Medical Officer in Hospital ▪ Health Assistant in BHU ▪ Focal person in HISC	District Health Officer
Quarterly STI report	▪ Health care providers in out-patient and in-patient services taking charge of STI patients ▪ Reproductive health staff: syphilis screening in pregnant women	▪ District Medical Officer in Hospital ▪ Health Assistant in BHU ▪ Focal person in HISC	District Health Officer

3 *Recording and Reporting System for Voluntary Counselling and Testing Services in Bhutan. April 2008.*

Quarterly MSTF activity report	Field workers in each organization part of the MSTF	Focal MSTF person in each organization	MSTF secretariat/ coordinator
HIV care and HAART, PMTCT indicators	Health care providers taking charge of PLWHA	Health care providers taking charge of PLWHA with the direct support of NACP (seeing the limited number of patients)	

5.4 Strengthening HIV sero and behavioural surveillance

Since 1988, the STI & HIV/AIDS Control Program has conducted sentinel sero-surveillance studies at its facilities. District, regional and the national referral hospitals conduct passive case finding, i.e., they report on all HIV+ cases identified during a few months each year. Military services were also included. The number of sentinel surveillance sites has increased from 15 in 2004 to 26 in 2006. In 2006, the sentinel surveillance survey covered all 26 hospitals in 20 districts. The sample sizes were also increased to 11,775 blood samples tested in 2006.

However with the increasing activities of testing and counseling in hospitals, the source of reporting for sero-surveillance during a few months has become similar to T&C activities during the rest of the year.

Sero-surveillance needs revision to ensure unlinked anonymous testing of participants as an international ethical principle applied in all countries worldwide.

For now, sero-surveillance focuses mainly on facility-based surveillance (in health facilities) while community-based surveillance needs to be developed to reach target population in Bhutan (such as sex workers and clients, migrants and mobile workers). Sero-surveys at community level will require the informed consent of the participants as an ethical principle.

Behavioural surveillance needs to be planed in the coming years. A pre-assessment surveys has been conducted to identify high risk groups in Bhutan and how to approach them. A limited population based survey was conducted among 3,232 participants.

5.5 Linking with the Health Management Information System

A National HMIS has been in place for many years and it is well established. This system collects information on a monthly basis from each facility at the Basic Health Unit and Hospital Outpatient levels.

One data point on HIV and AIDS is reported: on the monthly activity report, the number of laboratory examinations for HIV is recorded. One data point on STIs is reported: the Monthly Morbidity Report records the occurrence of STIs, excluding HIV (by age and sex). It does not include additional information on the type of STI.

Both HIV M&E system and HMIS will fuel each other and will serve for a comparative source of information to document the completeness of case-reports.

5.6 Supervision and quality-control of information

Cascade supervisions need to be conducted to assess the performance of the M&E system and the quality of information recorded:

- Supervision of NACP at district and facility levels
- Supervision of DHO at facility levels.

The maintenance of recording and reporting tools will be checked in order to assess the quality of information reported and transmitted.

In the initial stage of implementation of the M&E system at facility and district level, mentoring supervision might help a better understanding and organization of the M&E system.

Seeing the limited human capacity for supervision in NACP, mechanisms of integrated supervision should be privileged such as concomitant visits with HMIS, reproductive health, TB etc, short term recruitment might also facilitate the supervision (local consultants).

Double sources of information will help in assessing the quality of information reported:

- For HIV case reporting: source of information from HMIS and from the reference laboratories where a sample is sent systematically for confirmation
- For STI case reporting: source of information from HMIS (total STI) and reproductive health (syphilis screening).

The M&E system in Bhutan will be reviewed regularly, including an external review every 3 years.

5.7 Dissemination of information and retro-information

Dissemination of M&E results is expected to serve the following purposes:

- Share the data and information for better planning of HIV/AIDS interventions and resources,
- Give feedback on the efforts and resources committed to the national response and highlight issues that still require intervention,
- Increase public commitment to the national response to HIV/AIDS.

The NACP and NHAC will produce an annual national M&E report including selected indicators showing achievements of the national response, lessons learnt as well as points to be strengthened. Once finalised, a national workshop with key stakeholders and donors will be called for the endorsement of the annual M&E report. Results will also be disseminated through a specific annual report on sero and behavioural surveillance, fact sheets on HIV/AIDS, electronic media and panel of discussions.

6. Coordination mechanisms for M&E

6.1 Coordination at district level

The M&E of HIV/AIDS activities, including the flow of information from facility/ organization level to NACP, will require integration and decentralisation of coordinating mechanisms within the public health system.

At district level, a special emphasis will be put on the MSTF whose secretariat is often ensured by the District Health Office. Coordination of M&E has to be included in the working plan to be elaborated at district level and has to be part of the agenda of each MSTF meeting with the review of the completeness of the reports and analysis of the information received.

The DHO, member secretary of the MSTF, will implement the technical activities of M&E under the leadership and the authority of the MSTF. The technical capacity should be reinforced by the training of the staff.

6.2 Coordination at central level

The NACP in the MoH under the guidance of NHAC is in charge of the M&E of the multisectoral response. This unit is in charge of the national coordination of the M&E system over the different levels in the MoH and with the partners. The NACP needs to be supported by the NHAC to ensure multi-sectoral coordination of the M&E.

7. Summary of roles and responsibilities

Health facilities	▪ Standardized data collection ▪ Routine quarterly reporting to the DHO ▪ Data-analysis at facility level ▪ VCT, new HIV case, STI, HIV care and HAART, PMTCT ▪ Facility based surveillance
Multi-sector organizations part of MSTF	▪ Standardised data collection ▪ Routine quarterly reporting to the MSTF ▪ Prevention activities conducted for target populations ▪ Support for community based surveillance

MSTF and District Health Office	▪ Mapping of activities and service delivery ▪ Training of staff in health facilities and multisectoral organizations in M&E ▪ Collection and compilation of quarterly reports from the reporting health facilities and multisectoral organizations ▪ Data analysis at district level ▪ Sites supervision, mentoring and support ▪ Quarterly compilation reports to the NACP ▪ Retroinformation to the reporting sites ▪ Coordination at Dzongkhag level
NACP	▪ Advocacy on M&E among policy makers and stakeholders ▪ Guidelines, Standard Operating Procedures and forms for M&E ▪ Spread of guidelines and forms ▪ Training in M&E at all levels ▪ National compilation and analysis of information, dissemination and feed-back of information ▪ Supervision, mentoring and support at all levels ▪ Quality control of information ▪ Internal and external reviews of M&E system ▪ Coordination at national level
NHAC	▪ Support NACP in its mandate for coordination of the national M&E system ▪ Ensure multi-sector organizations adhere and report to the national M&E system ▪ Review information produced and use of data for program planning

8. Annex 1: forms

- New HIV positive case report
- Quarterly VCT report
- Quarterly STI case report
- Quarterly report of MSTF activities

Quarterly National Hiv Case Reporting Form – Reporting form at facility level

Reporting Quarter ..... **Name of Reporting Centre** .....

Please report each of the new HIV+ case for each quarter. *(Each row is for a new case).* Reporting is to be done quarterly and not case-wise. Do not report again an old case already reported (e.g. re-testing for confirmation of an old case)

VCT Regional Hospital District Hospital BHU Others (Specify)

Registration No.	Patient's code*	Age	Gender M/F	Dzongkhag	Geog/ Thromdue	Occupation	Marital status	Date of HIV testing	Reason for T&C	Mode of transmission	Risk assessment	Status of partner	No. of children	No. of children with HIV	Patient's clinical stage	Last CD4 (Date & Result)	Referral for

******The patient's code is allocated by the reference laboratory after confirmation by Elisa*

Dzongkhag Codes:	Marital status:	Reason for T&C:	Risk Assessment	Mode of transmission:	Status of partner:	Referral for:	Clinical stage:
1. Bumthang 2. Chukha 3. Dagana 4. Gasa 5. Haa 6. Lhuntse 7. Mongar 8. Paro 9. P/gatshel 10. Punakha 11. Samtse 12. Sarpang 13. S/jongkhar 14. Thimphu 15. T/gang 16. T/Yangtse 17. Trongsa 18. Tsirang 19. Wangdue 20. Zhemgang	1. Single 2. Married/with partner 3. Divorced 4. Widowed 5. Not applicable	1. Voluntary/self referred 2. STI patient 3. TB patient 4. HIV/AIDS related symptoms 5. Pregnancy/ANC 6. Operation/ Surgery 7. Blood donor screening 8. Contact tracing 9. Others (Specify)	1. Sex Workers 2. Injecting Drug use 3. MSM 4. Client of Sex worker 5. Mother HIV infected 6. History of blood transfusion or organ transplant 7. Partner of PLWHA 8. Uniformed personnel 9. Mobile migrant worker 10. Prisoner 11. Tourism Industry 12. Multiple partners/ unprotected sex 13. Partner with high risk behaviour 14. History of being rape victim 15. Low/no risk 16. Others (specify)	1. Injecting drug use 2. Hetero-sex 3. MSM 4. Blood & blood products 5. Mother to child	1. Positive 2. Negative 3. Unknown 4. Not applicable	1. ART 2. Admitted to hospital 3. Counselling 4. TB/OIs screening 5. Care & support services 6. NGO Care Centre 7 ANC Maternity/ PMTCT 8. CD 4 count	1.Asymptomatic 2Advanced HIV infection 3. AIDS 4 Not assessed

Quarterly VCT Report- Compilation form at DHO level

(to be completed in the DHO, compiling data from the reporting centers and sent to the NACP)

Quarter/year: **Dzongkhag:**

Completeness of the district report

	VCT	District Hospital	BHU	Other services	Total	Completeness(B/Ax100
VCT reports expected					**A**	
VCT reports received					**B**	

PART 1: TOTAL ACTIVITY

	# CLIENTS PRE-TESTED	# CLIENTS HIV TESTED	#CLIENTS HIV POSITIVE*	% HIV POSITIVE (#HIV +/ # tested X 100)	# CLIENTS POST-TESTED
TOTAL					

* Ensure that all HIV+ cases have been reported using the HIV reporting form on the back of the quarterly VCT report

PART 2: ACTIVITY AND RESULTS BY GENDER AND AGE GROUP

	# CLIENTS HIV TESTED			#CLIENTS HIV POSITIVE		
	Male	Female	Total	Male	Female	Total
0-29/365						
1/12-11/12						
1 - 4 yrs						
5-14 yrs						
15-24 yrs						
25- 49 yrs						
50 & above						
Total						

PART 3: DISTRIBUTION BY REASON FOR T&C

	# CLIENTS PRE-TESTED	# CLIENTS HIV TESTED	#CLIENTS HIV POSITIVE	% HIV POSITIVE # HIV+/ # tested X 100	# CLIENTS POST-TESTED
STI patients					
TB patients					
Pregnant women					
Blood donors					
Contact tracing					

PART 4: DISTRIBUTION BY RISK ASSESSMENT

GROUP	# CLIENTS PRE-TESTED	# CLIENTS HIV TESTED	#CLIENTS HIV POSITIVE	% HIV POSITIVE #HIV +/ # tested X 100	# CLIENTS POST-TESTED
Sex workers					
Injecting drug users					
MSM					
Client of sex worker					
Uniformed personnel					
Mobile/migrant workers					

Quarterly STI case report – Compilation form at DHO level

(to be completed in the DHO compiling data from the reporting centers and sent to the NACP)

Quarter/year: **Dzongkhag:**

Completeness of the district report:

	District hospital	BHU	Other services	TOTAL	Completeness (B/Ax100)
STI reports expected				A	
STI reports received				B	

1. Syndromic STI diagnoses

	Males		Females		
Age group	Urethral discharge (UD)	Genital ulcer disease (GUD)	Vaginal discharge (VD)	Genital ulcer disease (GUD)	Lower abdominal pain (LAP/PID)
0-29/365					
1/12-11/12					
1 - 4 yrs					
5-14 yrs					
15-24 yrs					
25- 49 yrs					
50 & above					
Total					

Remarks:

2. ANC syphilis screening

Number of pregnant women with ANC first visit in the quarter

VDRL/RPR		TPHA*		Syphilis
Number of performed	Number of reactive	Number of performed	Number of positive	Number of pregnant women treated.

* Where the test facility is available.

Remarks:

Quarterly report of MSTF activities – Compilation form at MSTF level

(To be completed by the district MSTF according to the information received by the different organisations and sent to the NACP)

Quarter/year: Dzongkhag:

MSTF reporting person :

Number of organizations part of MSTF (A) :

Number of organizations reporting during the quarter (B) :

Completeness (B/Ax100) :

	Activities	Who are the participants/ audience and how many reached?	Output	remarks
A	1. Meeting (s)			
	2. Training (s)			
	3. Advocacy campaign(s)			
B	1. Condom Distribution			
	Deachong boxes existing		Deachong boxes installed new	
	2. Number of Condoms distributed			
C	High priority groups* reached as a result of meetings, trainings and advocacy campaigns			

* Sex Workers, Clients of Sex workers, Injecting drug users, Man having sex with men, Youths in school, Youths out-of school, Uniformed personnel, Mobile/migrants workers, Prisoners, Tourism industry workers, and other population (Specify)

9. Annex 2: Indicator definitions

Number of women and men infected with HIV

PURPOSE To document the evolution of the number of people diagnosed with HIV in Bhutan in order to better plan the need for services in prevention, care, treatment and support.

DATA COLLECTION

- FREQUENCY:every quarter
- MEASUREMENT TOOL: New HIV Case Reporting Form
- METHOD OF MEASUREMENT

Case definition: A case of HIV infection is defined as an individual with HIV infection irrespective of clinical stage (including severe or stage 4 disease) confirmed by laboratory criteria according to national definition and requirement (WHO 2006). In Bhutan, the laboratory criteria for HIV confirmation is based on 2 different HIV rapid tests positive at facility level confirmed by a positive Elisa in the reference laboratory.

Each quarter, all health facilities providing Testing and Counselling will complete a "New HIV Case Reporting Form" linked with the "VCT Quarterly Monitoring Form". This information will be compiled at DHO and NACP levels. Anonymous individual information will be reported for each new HIV positive case.

This indicator will be analysed by gender, age group (youths), mode of transmission, district.

INTERPRETATION

The number of new HIV positive cases is the part visible of the epidemic in the country. It needs to be compared to the estimated number of people living with HIV in the country. It is related to the progression of the epidemic but also to the improved availability and accessibility of Testing and Counselling services.

More information are available in the VCT monitoring guidelines-Bhutan.

Number of new cases of AIDS reported

PURPOSE To document the medical burden related to the HIV epidemic and to allocate specific resources to offer care and treatment for the persons in need

DATA COLLECTION

- FREQUENCY:every quarter
- MEASUREMENT TOOL: New AIDS case reporting
- METHOD OF MEASUREMENT

Case definition: WHO clinical stage 4 and/or CD4-count < 200 cells/mm3

AIDS might occurs at any time in the life-time of a PLWHA. It can be identified at time of HIV diagnosis, but also during subsequent follow-up for the persons asymptomatic at time of HIV diagnosis.

INTERPRETATION

The number of new cases of AIDS reported is the part visible of the medical burden of the epidemic. It needs to be compared to the estimated number of PLWHA at AIDS stage in the country to document if the health services are dealing and identifying correctly the PLWHA in need of care and treatment. Usually the vast majority of patients with AIDS symptoms are accessing health services for care even if they are not aware of their HIV status.

Number of young women and men aged 15-24 who are HIV infected

PURPOSE : To document the evolution of new HIV case reported among the youths in the general population.

DATA COLLECTION

This indicator is part of indicator number 1 'number of women and men infected with HIV' and will be collected accordingly.

In low level epidemic it is very difficult and not recommended to conduct sero-surveillance among the younger groups in the general population. Due to the low HIV prevalence, the sample size to achieve conclusive results will be enormous and consequently such survey will be time and resource consuming detrimental to other priorities in surveillance.

Percentage of women and men aged 15–49 who are HIV infected

PURPOSE : To assess progress towards reducing HIV infection

DATA COLLECTION

- FREQUENCY:every 2 years
- MEASUREMENT TOOL: sero-surveillance surveys among pregnant women - WHO guidelines for HIV sentinel surveillance
- METHOD OF MEASUREMENT : This indicator is calculated using proxy data from pregnant women attending antenatal clinics in HIV sentinel surveillance sites in the capital city, other urban areas and rural areas.

Numerator: Number of antenatal clinic attendees (aged 15-49) tested whose HIV test results are positive

Denominator: Number of antenatal clinic attendees (15-49) tested for their HIV infection status

INTERPRETATION

This indicator is a proxy of the HIV prevalence among the general adult population to reflect change over time using the same methods of measurement.

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

PURPOSE : To assess progress in increasing survival among infected adults and children by maintaining them on ART

DATA COLLECTION

- FREQUENCY As patients start ART, monthly cohort data should be collected continuously for these patients. Data for monthly cohorts that have completed at least 12 months of treatment should then be aggregated and reported on a quarterly basis
- MEASUREMENT TOOL Programme monitoring tools; ART cohort/group analysis forms
- METHOD OF MEASUREMENT

Numerator: Number of adults and children who are still alive and on ART at 12 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.

This indicator should be disaggregated by sex and age (<15, 15+).

A 12-month outcome is defined as the outcome (i.e. whether the patient is still alive and on antiretroviral therapy, dead or lost to follow up) at 12 months after starting. For example, patients who started antiretroviral therapy during the 12-month period from 1 January to 31 December 2006 will have reached their 12-month outcomes for the reporting period of 1 January to 31 December 2007.

Explanation of Numerator: The numerator requires that adult and child patients must be alive and on antiretroviral therapy at 12 months after their initiation of treatment.

For a comprehensive understanding of survival, the following data must be collected:

- Number of adults and children in the antiretroviral therapy start-up groups initiating antiretroviral therapy at least 12 months prior to the end of the reporting period;
- Number of adults and children still alive and on antiretroviral therapy at 12 months after initiating 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 2005, if at any point during the period May 2005 to May 2006 these patients die, are lost to follow-up (and do not return), or stop treatment (and do not restart), then at month 12 (May 2006), they are not on antiretroviral therapy, and not included in the numerator.

Conversely, a patient who started antiretroviral therapy in May 2005 and who missed an appointment in June 2005, but is recorded as on ART in May 2006 (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 2005 is recorded as being alive and on ART after 12 months, regardless of what happens from May 2005 to May 2006.

Explanation of Denominator: The denominator is the total number of adults and children in the antiretroviral therapy start-up groups who initiated antiretroviral therapy at any point during the 12 months prior to the beginning of the reporting period, regardless of their 12-month outcome. For example, for the reporting period 1 January to 31 December 2007, this will include all patients who started antiretroviral therapy during the 12-month period from 1 January to 31 December 2006. This includes all patients, both those on antiretroviral therapy as well as those who are dead, have stopped treatment or are lost to follow-up at month 12.

INTERPRETATION

At the facility level, the number of adults and children on antiretroviral therapy at 12 months includes patients who have transferred in at any point from initiation of treatment to the end of the 12-month period and excludes patients who have transferred out during this same period to refl ect the net current cohort at each facility. In other words, at the facility level, patients who have transferred out will not be counted either in the numerator or the denominator. Similarly, patients who have transferred in will be counted in both the numerator and denominator. At the national level, the number of transferred-in patients should match the number of transferred-out patients. Therefore, the net current cohort (the patients whose outcomes the facility is currently responsible for recording—the number of patients in the start-up group plus any transfers in, minus any transfers out) at 12 months should equal the number in the start-up cohort group 12 months prior. Using this denominator may underestimate true "survival", since a proportion of those lost to follow-up are alive. The number of people alive and on antiretroviral therapy (i.e. retention on ART) in a treatment cohort is captured here. Priority reporting is for aggregate survival reporting. If comprehensive cohort patient registries are available then it is encouraged for countries to track survival at 24, 36, and 48 months. This will enable comparison over time of survival on antiretroviral therapy. As it stands, it is possible to identify whether survival at 12 months increases or decreases over time. However, it is not possible to attribute cause to these changes. For example, if survival at 12 months increases over time, this may refl ect an improvement

in care and treatment practices or earlier initiation of antiretroviral therapy. Therefore, collection and reporting of survival over longer durations of treatment outcomes may provide a better picture of the long-term success of antiretroviral therapy.

Percentage of most-at-risk populations who are HIV-infected

PURPOSE : To assess progress on reducing HIV prevalence among most-at-risk populations

DATA COLLECTION

- FREQUENCY Annual
- MEASUREMENT TOOL: sero-surveillance surveys among MARP - UNAIDS/WHO Second Generation Surveillance Guidelines; Family Health International guidelines on sampling in population groups
- METHOD OF MEASUREMENT This indicator is calculated using data from HIV tests conducted among members of most-at-risk population groups. It includes for Bhutan, STI patients, Sex workers and clients, uniformed services and mobile groups.

Numerator: Number of members of the most-at-risk population who test positivefor HIV.

Denominator: Number of members of the most-at-risk population tested for HIV.

Prevalence estimates should be disaggregated by sex and age (<25/25+).

To avoid biases in trends over time, this indicator should be reported over the same reporting sites

In theory, assessing progress in reducing the occurrence of new infections is best done through monitoring changes in incidence over time. However, in practice, prevalence data rather than incidence data are available. In analyzing prevalence data of most-at-risk-populations for the assessment of prevention programme impact, it is desirable not to restrict analysis to young people but to report on those persons who are newly initiated to behaviours that put them at risk for infection (e.g. by restricting the analysis to people who have initiated injecting drug use within the last year or participated in sex work for less than one year, etc.) This type of restricted analysis will also have the advantage of not being affected by the effect of antiretroviral treatment in increasing survival and thereby increasing prevalence. In the Country Progress Report, it is imperative to indicate whether this type of analysis is used to allow for meaningful global analysis.

INTERPRETATION

Due to difficulties in accessing most-at-risk populations, biases in serosurveillance data are likely to be far more significant than in data from a more general population, such as women attending antenatal clinics. If there are concerns about the data, these concerns should be reflected in the interpretation. An understanding of how the sampled population(s) relate to any larger population(s) sharing similar risk behaviours is critical to the interpretation of this indicator. The period during which people belong to a most-at-risk population is more closely associated with the risk of acquiring HIV than age.

Therefore, it is desirable not to restrict analysis to young people but to report on other age groups as well.

Trends in HIV prevalence among most-at-risk populations in the same reporting sites will provide a useful indication of HIV-prevention programme performance in those areas. However, it will not be representative of thesituation in the country as a whole.

FURTHER INFORMATION

For further information, please consult the following website:

- http://www.unaids.org/en/HIV_data/Methodology/default.asp

Percentage of women and men aged 15–49 and 15-24 who have had sexual intercourse with more than one partner in the last 12 months

PURPOSE : To assess progress in reducing the percentage of people who have higher-risk sex

DATA COLLECTION

- FREQUENCY 3 years
- MEASUREMENT TOOL Population-based surveys (Demographic Health Survey)
- METHOD OF MEASUREMENT Respondents are asked whether or not they have ever had sexual intercourse and, if yes, they are asked: In the last 12 months, how many different people have you had sexual intercourse with?

Numerator : Number of respondents aged 15-49 who have had sexual intercourse with more than one partner in the last 12 months

Denominator : Number of all respondents aged 15-49

The indicator should be presented as separate percentages for males and females and should be disaggregated by the age groups 15-19, 20-24 and 25-49 years.

INTERPRETATION

This indicator gives a picture of levels of higher-risk sex. If people have only one sexual partner, the change will be captured by changes in this indicator. However, if people simply decrease the number of sexual partners they have, the indicator will not refl ect a change, even though potentially this may have a signifi cant impact on the epidemic spread of HIV and may be counted a programme success. Additional indicators may need to be selected to capture the reduction in multiple sexual partners in general.

Percentage of women and men aged 15-49 and 15-24 who had more than one partner in the past 12 months reporting the use of a condom during their last sexual intercourse

PURPOSE : To assess progress towards preventing exposure to HIV throughunprotected sex with non-regular partners

DATA COLLECTION

- FREQUENCY: 3 years
- MEASUREMENT TOOL : Population-based surveys (Demographic Health Survey)
- METHOD OF MEASUREMENT : Respondents are asked whether or not they have ever had sexual intercourse and, if yes, they are asked:

1. In the last 12 months, how many different people have you had sexual intercourse with?

If more than one, the respondent is asked:

2. Did you or your partner use a condom the last time you had sexual intercourse?

Numerator: Number of respondents (aged 15-49) who reported having had more than one sexual partner in the last 12 months who also reported that a condom was used the last time they had sex Denominator: Number of respondents (15-49) who reported having had more than one sexual partner in the last 12 months The indicator should be presented as separate percentages for males and females, and should be disaggregated by the age groups 15-19, 20-24 and 25-49 years.

INTERPRETATION

This indicator shows the extent to which condoms are used by people who are likely to have higher-risk sex (i.e. change partners regularly). However, the broader significance of any given indicator value will depend upon the extent to which people engage in such relationships. Thus, levels and trends should be interpreted carefully using the data obtained on the percentages of people that have had more than one sexual partner within the last year.

The maximum protective effect of condoms is achieved when their use is consistent rather than occasional.

The current indicator does not provide the level of consistent condom use. However, the alternative method of asking whether condoms were always/sometimes/never used in sexual encounters with non regular partners in a specified period is subject to recall bias. Furthermore, the trend in condom use during the most recent sex act will generally reflect the trend in consistent condom use.

Percentage of most at risk populations reporting the use of a condom with their most recent non-regular partner

PURPOSE : To assess progress in preventing exposure to HIV among MARP through unprotected sex with non regular partners. This indicator should be collected for sex workers, clients of sex workers, STI patients, uniformed personnel, truckers.

DATA COLLECTION

- FREQUENCY : Every 2-3 years
- MEASUREMENT TOOL : Special behavioural surveys among MARPs, including the

Family Health International Behaviour Surveillance Survey

- METHOD OF MEASUREMENT : Respondents are asked the following question: Did you use a condom with your most recent non regular partner (client if sex worker) in the last 12 months?

Numerator: Number of respondents who reported that a condom was used with their last non regular partner (client if sex worker) in the last 12 months

Denominator: Number of respondents who reported having a non regular partner in the last 12 months

Data for this indicator should be disaggregated by sex and age (<25; 25+).

Whenever possible, data for sex workers should be collected through civil society organizations that have worked closely with this population in the field.

Access to survey respondents as well as the data collected from them must remain confidential.

INTERPRETATION

Condoms are most effective when their use is consistent, rather than occasional. The current indicator will provide an overestimate of the level of consistent condom use. However, the alternative method of asking whether condoms are always/sometimes/never used in sexual encounters in a specified period is subject to recall bias. Furthermore, the trend in condom use in the most recent sexual act will generally reflect the trend in consistent condom use.

Surveying MARP can be challenging. Consequently, data obtained may not be based on a representative sample of the national, most-at-risk population being surveyed. If there are concerns that the data are not based on a representative sample, these concerns should be reflected in the interpretation of the survey data. Where different sources of data exist, the best available estimate should be used. Information on the sample size, the quality and reliability of the data, and any related issues should be included in the report submitted with this indicator.

FURTHER INFORMATION

For further information, please consult the following references:

- UNAIDS (2006). A Framework for Monitoring and Evaluating HIV Prevention Programmes for Most-At-Risk Populations.
- UNAIDS (2006). Practical Guidelines for Intensifying HIV Prevention: Towards Universal Access.

Percentage of young women and men aged 15-49 and 15–24 who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission

PURPOSE : To assess progress towards universal knowledge of the essential facts about HIV transmission

DATA COLLECTION

- FREQUENCY : every 3 years
- MEASUREMENT TOOL : Population-based surveys (Demographic Health Survey)
- METHOD OF MEASUREMENT : This indicator is constructed from responses to the following set of prompted questions:

1. Can the risk of HIV transmission be reduced by having sex with only one uninfected partner who has no other partners?
2. Can a person reduce the risk of getting HIV by using a condom every time they have sex?
3. Can a healthy-looking person have HIV?
4. Can a person get HIV from mosquito bites?
5. Can a person get HIV by sharing food with someone who is infected?

Numerator : Number of respondents aged 15-49 years who gave the correct answer to all five questions

Denominator : Number of all respondents aged 15-49

The first three questions should not be altered. Questions 4 and 5 ask about local misconceptions and may be replaced by the most common misconceptions. Examples include: "Can a person get HIV by hugging or shaking hands with a person who is infected?" and "Can a person get HIV through supernatural means?" Those who have never heard of HIV and AIDS should be excluded from the numerator but included in the denominator. An answer of "don't know" should be recorded as an incorrect answer.

The indicator should be presented as separate percentages for males and females and should be disaggregated by the age groups 15-19 and 20-24 years.

Scores for each of the individual questions (based on the same denominator) are required as well as the score for the composite indicator.

INTERPRETATION

The belief that a healthy-looking person cannot be infected with HIV is a common misconception that can result in unprotected sexual intercourse with infected partners. Rejecting major misconceptions about modes of HIV transmission is as important as correct knowledge of true modes of transmission. For example, belief that HIV is transmitted through mosquito bites can weaken motivation to adopt safer sexual behaviour, while belief that HIV can be transmitted through sharing food reinforces the

stigma faced by people living with HIV. This indicator is particularly useful in countries where knowledge about HIV and AIDS is poor because it permits easy measurement of incremental improvements over time. However, it is also important in other countries as it can be used to ensure that pre-existing high levels of knowledge are maintained.

Percentage of most-at-risk populations who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV transmission

PURPOSE : To assess progress in building knowledge of the essential facts about HIV transmission among most-at-risk populations; it should be calculated among SW, clients of SW, STI patients, Uniformed personnel and truckers.

DATA COLLECTION

- FREQUENCY Every 3 years
- MEASUREMENT TOOL : Special behavioural surveys among MARP such as the Family Health International Behavioural Surveillance Survey for most-at-risk populations
- METHOD OF MEASUREMENT:Respondents are asked the following five questions:

1. Can having sex with only one faithful, uninfected partner reduce the risk of HIV transmission?
2. Can using condoms reduce the risk of HIV transmission?
3. Can a healthy-looking person have HIV?
4. Can a person get HIV from mosquito bites?
5. Can a person get HIV by sharing a meal with someone who is infected?

Numerator : Number of most-at-risk population respondents who gave the correct answers to all five questions

Denominator: Number of most-at-risk population respondents who gave answers, including "don't know", to all five questions

Indicator scores are required for all respondents and should be disaggregated by sex and age (<25; 25+).

The first three questions should not be altered. Questions 4 and 5 may be replaced by the most common misconceptions in the country. Respondents who have never heard of HIV and AIDS should be excluded from the numerator but included in the denominator.

Scores for each of the individual questions—based on the same denominator—are required in addition to the score for the composite indicator.

Whenever possible, data for most-at-risk populations should be collected through civil society organizations that have worked closely with this population in the field. Access to survey respondents as well as the data collected from them must remain confidential.

INTERPRETATION

The belief that a healthy-looking person cannot be infected with HIV is a common misconception that can result in unprotected sexual intercourse with infected partners. Correct knowledge about false beliefs of possible modes of HIV transmission is as important as correct knowledge of true modes of transmission. For example, the belief that HIV is transmitted through mosquito bites can weaken motivation to adopt safer sexual behaviour, while the belief that HIV can be transmitted through sharing food reinforces the stigma faced by people living with AIDS. This indicator is particularly useful in countries where knowledge about HIV and AIDS is poor because it allows for easy measurement of incremental improvements over time. However, it is also important in other countries because it can be used to ensure that pre-existing high levels of knowledge are maintained. Surveying most-at-risk populations can be challenging. Consequently, data obtained may not be based on a representative sample of the national, most-at-risk population being surveyed. If there are concerns that the data are not based on a representative sample, these concerns should be reflected in the interpretation of the survey data. Where different sources of data exist, the best available estimate should be used. Information on the sample size, the quality and reliability of the data, and any related issues should be included in the report submitted with this indicator.

FURTHER INFORMATION

For further information, please consult the following references:

- UNAIDS (2006). A Framework for Monitoring and Evaluating HIV Prevention Programmes for Most-At-
- Risk Populations.
- UNAIDS (2006). Practical Guidelines for Intensifying HIV Prevention: Towards Universal Access.
- WHO (2006). Technical Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users.

Number of condoms distributed for HIV prevention

PURPOSE : Proxy indicator to document progress in the involvement of local multisectoral organizations in delivering prevention services and to document access to condoms

DATA COLLECTION

FREQUENCY : every quarter

MEASUREMENT TOOL : MSTF quarterly report

METHOD OF MEASUREMENT : Each organization part of the MSTF will report on the number of condoms distributed per target population in the quarter.

INTERPRETATION

This indicator is a proxy to document involvement of multisectoral organizations as well as improved access to condoms with targeted strategies.

Percentage of donated blood units screened for HIV in a quality-assured manner

PURPOSE : To assess progress in ensuring a safe blood supply

DATA COLLECTION

- FREQUENCY : quarterly
- MEASUREMENT TOOL FRAME : Tool (Framework for Assessment, Monitoring and Evaluationof blood transfusion services): a rapid assessment tool used by the WHO Global Database on Blood Safety
- METHOD OF MEASUREMENT : This information should be available from the National Blood Transfusion Service

The following information is required to measure this indicator:

1. What was the total number of blood units that were donated in the country?

For each blood centre and blood screening laboratory that screens donated blood for HIV:

2. How many units of blood were donated in each blood centre/blood screening laboratory?
3. How many donated units were screened in the blood centre/blood screening laboratory?
4. Does the blood centre/blood screening laboratory follow documented standard operating procedures for HIV screening?
5. Does the blood centre/blood screening laboratory participate in an External Quality Assessment Scheme for HIV screening?

From this information, the indicator can be calculated.

Numerator : Number of donated blood units screened for HIV in blood centres/ blood screening laboratories that have both: (1) followed documented standard operating procedures and (2) participated in an external quality assurance scheme

Denominator : Total number of blood units donated

In this context, donation refers to any blood collected for the purposes of medical use. This includes all possible types of providers of blood, regardless of whether they receive remuneration or not. Examples of different categories of blood donors include:

- Voluntary non-remunerated blood donor: an altruistic donor who gives blood freely and voluntarily without receiving money or any other form of payment.
- Family/replacement blood donor: a donor who gives blood when it is required by

a member of the patient's family or community. This may involve a hidden paid donation system in which the donor is paid by the patient's family.

- Paid donor: a donor who gives blood for money or other form of payment.
- Autologous donor: a patient who donates his/her blood to be stored and reinfused, if needed, during surgery.

INTERPRETATION

If the blood screening laboratory follows documented and standardized procedures for the screening of blood, this implies a certain level of uniformity, reliability and consistency of performance by staff trained to use the standard operating procedures. If a blood screening laboratory participates in an External Quality Assurance Scheme, this implies that the quality of HIV screening performed is being assessed at regular intervals. It is important to view the percentage of screened blood units in relation to these two basic components of quality as both are required to ensure the quality of procedures.

Countries provide data to the WHO Global Database on Blood Safety on this indicator annually.

FURTHER INFORMATION

For further information, please consult the following websites:

- www.who.int/bloodsafety
- www.who.int/diagnostics_laboratory
- www.who.int/worldblooddonorday

Number of people diagnosed and treated for STI

PURPOSE : To document trends in STI (other than HIV) in the country.

DATA COLLECTION

- FREQUENCY:every quarter
- MEASUREMENT TOOL: STI reporting form
- METHOD OF MEASUREMENT

Each health facility will report on a quarterly basis on STI syndromic cases diagnosed and treated.

INTERPRETATION

This indicator is a marker of the risk of sexual transmission among the general population in the country as well as of the quality of STI services.

Percent of pregnant women tested for syphilis and prevalence

PURPOSE : To document trends in STI (other than HIV) in the country.

DATA COLLECTION

- FREQUENCY : every quarter
- MEASUREMENT TOOL : STI reporting form
- METHOD OF MEASUREMENT

Each health facility will report on a quarterly basis on number and proportion of pregnant women screened for syphilis, results of VDRL and TPHA and number of pregnant women treated for syphilis.

INTERPRETATION

This indicator is a marker of the risk of sexual transmission among the general population in the country as well as of the quality of STI services.

Number and percentage of most-at-risk populations reached with targeted HIV prevention

PURPOSE : To assess progress in implementing HIV prevention programmes for most-at-risk populations. This indicator needs to be calculated for sex workers and clients, STI patients, Uniformed personnel, truckers.

DATA COLLECTION

- FREQUENCY: quarterly
- MEASUREMENT TOOL Behavioural surveillance or other special surveys
- METHOD OF MEASUREMENT Organisations will report on a quarterly basis on the number of persons reached. Additionally they will report the number of persons informed about VCT sites and given a condom and for IDU given sterile needles and syringes

This indicator will also be assessed during behavioural surveillance. Respondents are asked the following questions:

1. Do you know where you can go if you wish to receive an HIV test?
2. In the last twelve months, have you been given condoms? (e.g. through an outreach service, drop-in centre or sexual health clinic) Injecting drug users (IDUs) should be asked the following additional question:
3. In the last twelve months, have you been given sterile needles and syringes? (e.g. by an outreach worker, a peer educator or from a needle exchange programme)

Numerator : Number of most-at-risk population respondents who replied "yes" to both (all three for IDUs) questions

Denominator : Total number of respondents surveyed

Scores for each of the individual questions—based on the same denominator—are required in addition to the score for the composite indicator.

Data collected for this indicator should be reported separately for each most-at-risk

population and disaggregated by sex and age (<25/25+). Whenever possible, data for most-at-risk populations should be collected through civil society organizations that have worked closely with this population in the field. Access to survey respondents as well as the data collected from them must remain confidential.

INTERPRETATION

Accessing and/or surveying most-at-risk populations can be challenging. Consequently, data obtained may not be based on a representative sample of the national, most-at-risk population being surveyed. If there are concerns that the data are not based on a representative sample, these concerns should be reflected in the interpretation of the survey data. Where different sources of data exist, the best available estimate should be used. Information on the sample size, the quality and reliability of the data, and any related issues should be included in the report submitted with this indicator.

The inclusion of these indicators for reporting purposes should not be interpreted to mean that these services alone are sufficient for HIV prevention programmes for these populations. The set of key interventions described above should be part of a comprehensive HIV prevention programme, which also includes elements such as provision of HIV prevention messages (e.g. through outreach programmes and peer education), and opioid substitution therapy for injecting drug users.

Since the Global Progress Report in 2006, it has been recommended that the issue of quality and intensity of reported services among most-at-risk populations be addressed more explicitly in terms of criteria for the measurement of the components of provided services. Taking into account the complexity of this element of measurement, particularly within the context of most-at-risk populations, the development of such criteria requires an intensive process of information gathering, synthesis and recommendations formulation. This was difficult to address between the reporting processes of 2005 and 2007. However, the process has been initiated and is expected to have recommendations for the next reporting round. In the meantime, it is recommended that the guidelines mentioned below be referred to as reference documents that can facilitate interpretation of the collected data from a quality and intensity perspective.

FURTHER INFORMATION

For further information, please consult the following references:

- UNAIDS (2006). A Framework for Monitoring and Evaluating HIV Prevention Programmes for Most-At-Risk Populations.
- UNAIDS (2006). Practical Guidelines for Intensifying HIV Prevention: Towards Universal Access.
- WHO (2006). Technical Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users.
- Number and percentage of women and men aged 15-49 and 15-24 who received an HIV test in the last 12 months and who know their results

PURPOSE : To assess progress in implementing HIV testing and counselling

DATA COLLECTION

- FREQUENCY : Every 3 years by survey, every quarter by routine VCT monitoring
- MEASUREMENT TOOL: : this indicator will be collected during Population-based surveys and in routine by VCT monitoring
- METHOD OF MEASUREMENT : during survey. Respondents are asked:

1. I don't want to know the results, but have you been tested for HIV in the last 12 months?
2. If yes: I don't want to know the results, but did you get the results of that test?

Numerator : Number of respondents aged 15-49 who have been tested for HIV during the last 12 months and who know their results

Denominator : Number of all respondents aged 15-49

The indicator must be presented as percentages for males and females, and should be disaggregated by the age groups 15-19, 20-24 and 25-49.

The denominator includes respondents who have never heard of HIV or AIDS.

INTERPRETATION

In order to protect themselves and to prevent infecting others, it is important for individuals to know their HIV status. Knowledge of one's status is also a critical factor in the decision to seek treatment. The introductory statement "I don't want to know the results, but..." allows for better reporting and reduces the risk of underreporting of HIV testing among people who do not wish to disclose their serostatus.

FURTHER INFORMATION

For further information, please consult the following website:

• http://www.measuredhs.com/aboutsurveys/ais.cfm

Percentage of most-at-risk populations who received an HIV test in the last 12 months and who know their results

PURPOSE : To assess progress in accessing services and implementing HIV testing and counselling among most-at-risk populations. This indicator need to be calculated for Sex workers and clients, STI patients, uniformed personnel and truckers

DATA COLLECTION

- FREQUENCY Every 2-3 years
- MEASUREMENT TOOL Behavioural surveillance or other special surveys
- METHOD OF MEASUREMENT Respondents are asked the following questions:

1. Have you been tested for HIV in the last 12 months? If yes:
2. I don't want to know the results, but did you receive the results of that test?

Numerator : Number of most-at-risk population respondents who have been tested for HIV during the last 12 months and who know the results

Denominator : Number of most-at-risk population included in the sample

Data for this indicator should be disaggregated by sex and age (<25/25+).

Whenever possible, data for most-at-risk populations should be collected through civil society organizations that have worked closely with this population in the field. Access to survey respondents as well as the data collected from them must remain confidential.

INTERPRETATION

Accessing and/or surveying most-at-risk populations can be challenging. Consequently, data obtained may not be based on a representative sample of the national, most-at-risk population being surveyed. If there are concerns that the data are not based on a representative sample, these concerns should be reflected in the interpretation of the survey data. Where different sources of data exist, the best available estimate should be used. Information on the sample size, the quality and reliability of the data, and any related issues should be included in the report submitted with this indicator. Tracking most-at-risk populations over time to measure progress may be difficult due to mobility and the hard-to-reach nature of these populations with many groups being hidden populations. Thus, information about the nature of the sample should be reported in the narrative to facilitate interpretation and analysis over time

FURTHER INFORMATION

For further information, please consult the following references:

- UNAIDS (2006). A Framework for Monitoring and Evaluating HIV Prevention Programmes for Most-At-Risk Populations.
- UNAIDS (2006). Practical Guidelines for Intensifying HIV Prevention: Towards Universal Access.
- WHO (2006). Technical Guide for Countries to Set Targets for Universal Access to HIV Prevention, Treatment and Care for Injecting Drug Users.

Number and percentage of HIV-infected pregnant women who received antiretrovirals to reduce the risk of mother-to-child transmission

PURPOSE : To assess progress in preventing vertical transmission of HIV

DATA COLLECTION

- FREQUENCY Data should be collected continuously at the facility level. Data should
- be aggregated quarterly.
- MEASUREMENT TOOL For the numerator: programme monitoring tools. For the denominator: antenatal clinic surveillance or estimation model.
- METHOD OF MEASUREMENT The number of HIV-infected pregnant women who

received antiretrovirals (ARVs) to reduce the risk of mother-to-child transmission during the last 12 months is obtained from programme monitoring records compiled from patient records and registers.

Numerator: Number of HIV-infected pregnant women who received antiretrovirals during the last 12 months to reduce mother-to-child transmission

Denominator: Estimated number of HIV-infected pregnant women in the last 12 months

Explanation of numerator: There are four general antiretroviral treatment options that HIVinfected women can receive for the prevention of mother-to-child transmission (PMTCT):

1. Single-dose Nevirapine

2. Prophylactic regimens using a combination of two ARVs

3. Prophylactic regimens using a combination of three ARVs

4. ART for HIV-positive pregnant women eligible for treatment

HIV-infected women receiving any of the four options meet the definition for the numerator. Countries should report as the numerator the total number of HIV-infected pregnant women who were provided with any of the antiretroviral treatment regimes in options one to four.

In option number four, HIV-infected pregnant women who are eligible for antiretroviral treatment and receive a treatment regimen will also benefit from the prophylactic effect for prevention of mother to-

child transmission and thus are included in the numerator.

Antiretroviral drugs can be provided to HIV-infected women during pregnancy, at labour and shortly after delivery, and provision can take place at a number of sites.

Explanation of Denominator : The denominator is generated by estimating the number of HIVinfected women who were pregnant in the last 12 months. This is based on surveillance data from antenatal clinics.

Two methods are possible for generating the estimate for the denominator:

1. Estimates generated by a projection model5 such as Spectrum;6 or

2. Multiplying:

   (a) the total number of women who gave birth in the last 12 months, which can be obtained from the Central Statistics Offi ce estimates of births, by

   (b) the most recent national estimate of HIV prevalence in pregnant women, which can be derived from HIV sentinel surveillance antenatal clinic estimates.

INTERPRETATION

Countries are encouraged to track and report on the actual or estimated percent distribution of the various regimens provided so that the impact of antiretroviral drugs on mother-to-child-transmission can be modelled based on the efficacy of corresponding regimens.

In 2006, international guidelines were updated to recommend more efficacious regimens for prevention of mother-to-child transmission, and countries may be at different phases in adopting the newer recommendations. 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.

This indicator permits monitoring trends in antiretroviral drug provision that addresses prevention of mother-to-child transmission. However, since countries provide different regimens of antiretroviral drugs for prevention of mother-to-child transmission, cross-country comparisons of aggregate estimates must be interpreted with caution and with reference to the regimens provided.

In addition to antiretroviral drugs for the mother, ARV regimens to reduce mother-to-child transmission should be accompanied by an appropriate regimen for the infant, and thus where possible, countries should track and report on whether the infant dose has been provided.

National estimates of HIV-infected pregnant women should be derived by adjusting surveillance data from antenatal clinic sentinel sites and other sources, taking into consideration characteristics such as rural/ urban patterns of HIV prevalence that may affect the representation of surveillance sites.

FURTHER INFORMATION

The prevention of mother-to-child transmission is a rapidly evolving programmatic area. Methods for monitoring coverage of this service are therefore also evolving. To access the most current information available please consult the following website:

- http://www.who.int/hiv/pub/guidelines/pmtct/en/index.html

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

PURPOSE : To assess progress towards providing antiretroviral combination therapy to all people with advanced HIV infection

DATA COLLECTION

- FREQUENCY Data should be collected continuously at the facility level. Data should be aggregated quarterly. The most recent quarterly data should be used for annual reporting.
- MEASUREMENT TOOL For the numerator: facility ART registers and ART cohort analysis report forms, or programme monitoring tools. For the denominator: estimation models.
- METHOD OF MEASUREMENT

Numerator : Number of adults and children with advanced HIV infection who are currently receiving antiretroviral therapy in accordance with the nationally approved treatment protocol (or WHO/UNAIDS standards) at the end of the reporting period

Denominator : Estimated number of adults and children with advanced HIV infection

This indicator should be disaggregated by sex and age (<15, 15+) and percentages given for 2006 and 2007 to track annual trends in coverage.

Explanation of Numerator : The numerator can be generated by counting the number of adults and children who received antiretroviral therapy at the end of the reporting period. The numerator should equal the number of adults and children with advanced HIV infection who ever started antiretroviral treatment minus those patients who are not currently on treatment prior to the end of the reporting period. Patients not currently on treatment at the end of the reporting period, in other words, those who are excluded from the numerator, are patients who died, stopped treatment or are lost to follow-up.

Some patients pick up several months of antiretroviral drugs at one visit, which could include antiretroviral therapy received for the last months of the reporting period, but not be recorded as visits for the last months in the patient register. Efforts should be made to account for these patients, as they need to be included in the numerator.

Antiretroviral therapy taken only for the purpose of prevention of other-to-child transmission and post-exposure prophylaxis are not ncluded in this indicator. HIV-infected pregnant women who are ligible for and on antiretroviral drugs for their own treatment are ncluded in this indicator.

The number of adults and children with advanced HIV infection ho are currently receiving antiretroviral combination therapy can be btained through data collected from drug supply management systems or facility-based antiretroviral treatment registers. These are then tallied nd transferred to cross-sectional monthly or quarterly reports which can then be aggregated for national totals. Patients receiving antiretroviral therapy in the private sector and public sector should be included in the numerator where data are available.

Explanation of Denominator : The denominator is generated by estimating the number of peoplewith advanced HIV infection requiring (in need of/eligible for) antiretroviral therapy.

The denominator estimates are most often based on the latest data available from sentinel surveillance which can then follow UNAIDS/ WHO Reference Group on Estimates, Modelling and Projections methodology.3 Need or eligibility for antiretroviral therapy should follow the WHO definitions for the diagnosis of advanced HIV (including AIDS) for adults and children.

INTERPRETATION

This indicator permits monitoring trends in coverage but does not attempt to distinguish between different forms of antiretroviral therapy or to measure the cost, quality or effectiveness of treatment provided. These will each vary within and between countries and are liable to change over time.

The proportion of people needing antiretroviral therapy varies with the stage of the HIV epidemic and the cumulative coverage and effectiveness of antiretroviral combination therapy among adults and children.

The degree of utilization of ART will depend on factors such as cost relative to local incomes, service delivery infrastructure and quality, availability and uptake of voluntary counselling and testing services, and perceptions of effectiveness and possible side effects of treatment.

Number of estimated HIV-positive incident TB cases that received treatment for TB and HIV

PURPOSE : To assess progress in detecting and treating TB in people living with HIV

DATA COLLECTION

- FREQUENCY : Data should be collected continuously at the facility level. Data should be aggregated quarterly, and reported annually. The most recent year for which data and estimates are available should be reported here.
- MEASUREMENT TOOL : Facility ART registers and reports; programme monitoring tools and estimates
- METHOD OF MEASUREMENT : Programme data and estimates of incident TB cases in people living with HIV

Numerator: Number of adults with advanced HIV infection who are currently receiving antiretroviral therapy in accordance with the nationally approved treatment protocol (or WHO/UNAIDS standards) and who were started on TB treatment (in accordance with national TB programme guidelines) within the reporting year

Denominator: Estimated number of incident TB cases in people living with HIV

Country-specific annual estimates of the number of incident TB cases in people living with HIV are calculated by WHO and are available at: http://www.who.int/tb/country/en

Data for this indicator should be disaggregated by sex.

INTERPRETATION

Adequate detection and treatment of TB will prolong the lives of people living with HIV and reduce the community burden of TB. WHO provides annual estimates of the burden of TB among people living with HIV, based on the best available country estimates of HIV prevalence and TB incidence. All incident TB cases among people living with HIV should be started on TB treatment and, depending on country specifi c eligibility criteria. All or most people living with HIV who have TB should be on antiretroviral therapy, depending on local eligibility criteria. TB treatment should only be started in accordance with national TB programme guidelines.

This indicator provides a measure of the extent to which collaboration between the national TB and HIV programmes is ensuring that people with HIV and TB disease are able to access appropriate treatment for both diseases. However, this indicator will also be affected by low uptake of HIV testing, poor access to HIV care services and antiretroviral treatment, and poor access to TB diagnosis and treatment. Separate indicators exist for each of these factors and should be referred to when interpreting the results of this indicator.

It is important that those providing HIV care and antiretroviral treatment record TB diagnosis and treatment, as this information has important implications for antiretroviral treatment eligibility and choice of regimen. It is therefore recommended that the date of starting TB treatment is recorded in the antiretroviral treatment register.

If possible, the number of patients started on TB treatment among those in HIV care but not yet on antiretroviral treatment should also be reported. This would capture additional cases of TB that are detected and treated among people living with HIV.

FURTHER INFORMATION

For further information, please consult the following reference and website:

- World Health Organization (2007). Global Tuberculosis Control: Surveillance, Planning, Financing. WHO Report 2007. (WHO/HTM/TB/2007.376) Geneva: World Health Organization.
- http://www.who.int/tb/country/en

Number of HIV prevention sessions/campaigns conducted by Multi-Sectoral Task Forces

PURPOSE : To document involvement and activities conducted by the multi-sectoral organizations in HIV control.

DATA COLLECTION

- FREQUENCY:every quarter
- MEASUREMENT TOOL: MSTF report
- METHOD OF MEASUREMENT

Each organization involved in the MSTF will report on a quarterly basis on the activities conducted. Prevention sessions/campaigns will include all outreach and group sensitization activities.

INTERPRETATION

This indicator is a proxy to document involvement of multisectoral organizations as well as improved activities of sensitization and prevention for the targeted populations.

Number and percent of service delivery points where VCT is available

PURPOSE : To document progress in the availability of VCT services

DATA COLLECTION

- FREQUENCY:every quarter
- MEASUREMENT TOOL: DHO report and VCT report
- METHOD OF MEASUREMENT

Each health facility providing VCT need to report using the VCT quarterly report form. The DHO is in charge to compile the reports and assess the completeness.

Numerator : number of health facilities providing VCT (submitting or not a report)

Denominator : total number of health facilities in the country.

This indicator will be analysed according to the referral level (primary to tertiary).

INTERPRETATION

This indicator document the availability of VCT services. It does not provide information on the accessibility and on the quality of services.

Number of health-care providers trained in the provision of STI management/ VCT/ prevention of MTCT/ART according to national guidelines

PURPOSE : To document progress in capacity building for health workers.

DATA COLLECTION

- FREQUENCY:Annualy
- MEASUREMENT TOOL: Training reports
- METHOD OF MEASUREMENT

Information centralized in MoH- NACP and compared to the total health care providers according to categories.

INTERPRETATION

Training of health-care providers is part of the capacity building to deliver services and also support creating an enabling environment for HIV prevention, care and support in health services.

Number and Percentage of schools grade 7 and above providing life skills-based HIV education in the last academic year.

PURPOSE : To assess progress towards implementation of life skills-based HIV education in all schools

DATA COLLECTION

- FREQUENCY Annually
- MEASUREMENT TOOL routine data from MoE
- METHOD OF MEASUREMENT Principals/heads of a nationally-representative sample of schools (to include both private and public schools) are briefed on the meaning of life skills-based HIV education and then are asked the following question: Within the last academic year, did your school provide at least 30 hours of life skills training to each grade?

Numerator : Number of schools grade 7 and above that provided life skills-based HIV education in the last academic year

Denominator : Number of schools grade 7 and above in Bhutan

INTERPRETATION

It is important that life skills-based HIV education is initiated in the early grades of primary school and then continued throughout schooling with contents and methods being adapted to the age and experience of the students.

The indicator provides useful information on trends in the coverage of life skills-based HIV education within schools. However, the substantial variations in the levels of school enrolment must be taken into account when interpreting (or making cross-country comparisons of) this indicator. Consequently, primary and secondary school enrolment rates for the most recent academic year should be included in the supporting information provided for this indicator.

Complementary strategies that address the needs of out-of-school youth will be particularly important in countries where school enrolment rates are low. The indicator is a measure of coverage. The quality of education provided may differ by country and over time.

FURTHER INFORMATION

For further information, please consult the following websites:

- http://www.unicef.org/lifeskills/index_hiv_aids.html
- http://www.unicef.org/aids/index_documents.html

National Composite Policy Index

PURPOSE : To assess progress in the development and implementation of national level HIV and AIDS policies and strategies

DATA COLLECTION

- FREQUENCY Every two years
- MEASUREMENT TOOL National Composite Policy Index (NCPI) questionnaire
- (see Appendix 7 – guidelines on construction of core indicators, UNGASS 2008)
- METHOD OF MEASUREMENT The composite index covers the following broad areas of policy, strategy and programme implementation:

Part A

1. Strategic plan
2. Political support
3. Prevention
4. Treatment, care and support
5. Monitoring and evaluation

Part B

1. Human rights
2. Civil society involvement
3. Prevention
4. Treatment, care and support

INTERPRETATION

It is important to analyse the data for each of the NCPI sections and include a write-up in the Country Progress Report in terms of progress made in (a) policy and strategy development and (b) implementation of policies and strategies, in order to tackle the country's HIV epidemic. Comments on the agreements or discrepancies between overlapping questions in Parts A and B should also be included, as well as a trend analysis on the key NCPI data since 2003, where available2.

Domestic and international AIDS spending by categories and financing sources

PURPOSE : To collect accurate and consistent data on how funds are spent at the national level and where those funds are sourced

DATA COLLECTION

- FREQUENCY annual
- MEASUREMENT TOOLS Primary tool/method: National AIDS Spending Assessment (NASA) Alternative tools/methods:

1. National Health Accounts - AIDS sub-accounts. The NASA guidelines include a section mapping the codes of the NHA and NASA for AIDS health expenditures and for selected activities performed outside the health system. Thus, there should not be any difference in the AIDS health spending measured by NASA or by the NHA sub-accounts. However, some activities performed outside the health system might not be included in National Health Accounts.
2. Resource Flows (RF) Survey. There has been an alignment process and countries that have been selected in the sample of this survey and have responded to the questionnaires may enter the information in the funding matrix at the aggregated level by main activities. Some activities performed outside the health system might not be included in this RF Survey. In addition, some population-related actions should be excluded from the total for AIDS. The outputs from any of these measurement tools are to be used to complete the National Funding Matrix, which is to be submitted as part of the Country Progress Report

- METHOD OF MEASUREMENT Actual expenditures classified by eight AIDS Spending Categories and by financing source, including public expenditure from its own sources (i.e. government revenues such as taxes) and from international sources:

  1. Prevention;
  2. Care and treatment;

3. Orphans and vulnerable children1;

4. Programme management and administration strengthening;

5. Incentives for human resources;

6. Social protection and social services (excluding orphans and vulnerable children);

7. Enabling environment and community development;

8. Research (excluding operations research included under programme management).

Three main groups of financing sources:

1. Domestic public;

2. International;

3. Domestic private (optional for UNGASS reporting).

INTERPRETATION

The financial data entered in the National Funding Matrix must be actual expenditures, not budgets or commitments. They must also include AIDS expenditures that were made as part of broader systems of service provision. For example, the diagnosis and treatment of opportunistic infections would require a special costing estimate to track the specific resources allocated to AIDS-related diagnosis and treatment.

Similarly, prevention activities in schools may benefit from a detailed estimation to calculate actual expenditureson AIDS activities. The AIDS expenditures might occur outside the health system given the nature of expanded responses to AIDS.

Historically, there has been very limited information available on how AIDS fi nancial resources are spent at the national level and where countries source that funding. Completing the National Funding Matrix will provide a more detailed picture of the situation at the country level, which is useful for both national and global decision-making.

FURTHER INFORMATION

For further information, please consult the following references and websites:

- Partners for Health Reform Plus/USAID (2004). Methodological Guidelines for Conducting a National
- Health Accounts Sub-analysis for HIV/AIDS. This publication can be found at:
- http://www.phrplus.org/Pubs/Tech044_fi n.pdf
- UNAIDS (2007). Notebook to Produce National AIDS Spending Assessment. This publication is available at: www.unaids.org/en/Coordination/FocusAreas/track-monitor-evaluate.asp
- UNAIDS (2007). NASA-NHA Crosswalk. This publication is available at

- www.unaids.org/en/Coordination/FocusAreas/track-monitor-evaluate.asp
- UNFPA/UNAIDS/NIDI. Details on Resource Flows Surveys, survey instruments, countries sampled and more details on this tool are available at: www.resourcefl ows.org
- World Bank/WHO/USAID (2003). Guide to Producing National Health Accounts. This publication and other tools for National Health Accounts and AIDS sub-accounts can be found at:
- www.who.int/nha

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