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# MONITORING AND EVALUATION TOOLKIT

## HIV/AIDS, TUBERCULOSIS AND MALARIA

**Annexes:**  
**Selected indicators for HIV/AIDS,  
tuberculosis and malaria**

June 2004

## **Annexes: selected indicators for HIV/AIDS, tuberculosis and malaria**

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**ANNEX A:**  
**Description of HIV/AIDS Indicators**





**Note:** The indicators presented in this annex are a selection from a larger, more comprehensive list of available indicators in each disease area. Readers are encouraged to refer to the full list of indicator resources listed under “Guidelines” for each HIV/AIDS, TB, and malaria in order to obtain a comprehensive overview of ALL core and additional indicators available for their use.

This indicator should be presented as a percentage separately for men and women disaggregated by age in the following groups: 10-14 15-19, 20-24 and 10-24 (eight categories). In addition, this particular indicator should also be presented for the 15-24 age group, as the Millennium Development Goals and the UNGASS HIV Goals are specified for this age group in particular.

The indicator can also be disaggregated by question to show gaps in knowledge and prevalence of misconceptions.

**Platform:** Nationally representative general population survey

**Frequency:** Biennial

## REFERENCES

- WHO-UNAIDS (2004) Guide to Monitoring and Evaluating National HIV/AIDS Prevention Programmes for Young People. Geneva. [http://www.who.int/hiv/pub/epidemiologu/me\\_prev\\_yp/en](http://www.who.int/hiv/pub/epidemiologu/me_prev_yp/en)

## PREVENTION INDICATOR (HIV-PI) 1:

### BCC

### Knowledge of HIV prevention among young people

Percentage of young people who both correctly identify ways of preventing the sexual transmission of HIV and who reject major misconceptions about HIV

#### RATIONALE

This indicator combines the measures of knowledge of HIV transmission and prevention with the prevalence of most common misconceptions about HIV.

#### DEFINITION OF INDICATOR

*Numerator:* Number of respondents who gave correct answers to all five questions relating to transmission of HIV and misconceptions about HIV

*Denominator:* All young people

*Note:* Analysis and reporting in percentage broken down by males and females according to urban/rural residence.

#### MEASUREMENT

Construction of Core Indicators, are used to construct this indicator:

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

Items 4 and 5 may be replaced with the two most common local (national) misconceptions about HIV transmission or prevention. For example, “Can HIV in an infected man be cured if he has sex with a virgin girl?”

Items 1 and 2 measure the correct knowledge for preventing HIV transmission. Item 3 measures a common misconception that healthy-looking people do not have HIV infection. This is a widespread misconception among young people, and it can result in unprotected sex with an infected partner. Items 4 and 5 refer to two other misconceptions about HIV transmission.

Together the indicator provides programme managers with a measure of the overall knowledge that young people have of avoiding HIV. Previous knowledge indicators have included abstinence as a “correct” method of prevention used in this indicator. Abstinence is an extremely important prevention option for young people.

Research in many settings shows that already sexually active people rarely use abstinence as a primary HIV-prevention method, however, young people in particular may be practicing “secondary abstinence” - that is, a prolonged voluntary period of sexual inactivity following sexual initiation. Negative responses on this item may therefore result from people believing that abstinence is not feasible, rather than from belief that abstinence does not provide effective protection. In surveys among adolescents, however, questions about abstinence continue to be important. Programmes focusing on delaying age at first sex among adolescents (ages 10–19) may choose to add a knowledge indicator that includes correct responses to a question about abstinence as a prevention method in the numerator. A suggested question on abstinence might be: “Can the risk of HIV transmission be reduced by abstaining from sexual intercourse?”



## PREVENTION INDICATOR (HIV-PI) 2:

### YOUTH EDUCATION Provision of life-skills-based HIV/AIDS education in schools

Percentage of schools with at least one teacher who has been trained in participatory life-skills based HIV/AIDS education and who taught it during the last academic year.

#### RATIONALE

This indicator is a measure of the progress in implementing life-skills-based HIV/AIDS education in schools. It is a measure of coverage by school – that is, estimating the proportion of schools that report having such programmes. It is not a measure of the quality of such programmes. For this indicator to be most meaningful, it should be combined with measures of quality.

#### DEFINITION OF INDICATOR

*Numerator:* Number of schools with at least one teacher trained in, and regularly teaching, life-skills-based HIV/AIDS education

*Denominator:* Number of schools

*Note:* The target population for this indicator are primary and secondary schools. It is recommended that age be disaggregated into the following ranges: 15-19, 20-24.

Principals/heads of a nationally-representative sample of schools (to include both private and public schools, and primary and secondary schools) are briefed on the meaning of life-skills-based HIV/AIDS education and are then asked the following questions:

1. Does your school have at least one qualified teacher who has been trained in participatory life skills-based HIV/AIDS education in the last five years?
2. If the answer to question 1 is “yes”: Did this person teach life-skills-based HIV/AIDS education on a regular basis in your school *throughout* the last academic year? (“*throughout*” meaning at least 5–15 hours of life-skills-based HIV/AIDS education programming per year per grade of pupil)

A qualified teacher is one that has participated in, and successfully completed, a training course focusing on the skills required to conduct participatory learning experiences that aim to develop knowledge, positive attitudes and skills (e.g., interpersonal communication, negotiation, decision-making and critical-thinking skills and coping strategies) that assist young people in maintaining safe lifestyles.

The criteria of *teaching on a regular basis* is grounded in research findings that show that high-quality programmes can produce good outcomes with 5–15 hours of life-skills-based HIV/AIDS education programming per year per grade of pupil.

The time dimension of *the last academic year* will be, in each country, defined according to the educational calendar (usually 9-10 months within one calendar year, designed to allow students to complete one educational level, or grade).

If the sample was selected to represent different strata, the results can be disaggregated by school type (i.e., female and male, large and small, urban and rural, private or public, and primary or secondary). Where a school is both primary and secondary, information should be collected and reported separately for each level.

In addition, primary and secondary school attendance rates for the most recent academic year available should be stated.



Resources permitting, the following additional four questions can also be included (in the case of the answer to question 1 above being “yes”):

3. How many teachers at your school have received training in participatory life-skills-based HIV/AIDS education in the last five years?
4. How many of these teachers taught life-skills-based HIV/AIDS education programme in your school during the last academic year?
5. How many classes and students in each grade in your school received life-skills-based HIV/AIDS education last year?
6. How long was the programme/course for each grade in hours?

With information on the overall school-age population and on the above questions, it is possible to estimate the proportion of all young people, as well as the proportion of school-going young people, who actually receive life-skills-based HIV/AIDS education..

For a guide to *quality* aspects of a life-skills-based HIV/AIDS education, refer to UNICEF website:  
<http://www.unicef.org/lifeskills/>

**Platform:** School-based survey

**Frequency:** Biennial

## REFERENCES

- WHO-UNAIDS (2004) Guide to Monitoring and Evaluating National HIV/AIDS Prevention Programmes for Young People. Geneva. [http://www.who.int/hiv/pub/epidemiologu/me\\_prev\\_yp/en](http://www.who.int/hiv/pub/epidemiologu/me_prev_yp/en)

## PREVENTION INDICATOR (HIV-PI) 3:

### CONDOM DISTRIBUTION Retail outlets and service delivery points with condoms in stock

The proportion of randomly selected retail outlets and service delivery points that have condoms in stock at the time of a survey, of all retail outlets and service delivery points selected for survey.

#### RATIONALE

This indicator reflects the success of attempts to broaden the distribution of condoms so that they are more widely available to people at locations and times when people are likely to need them. It measures actual distribution of condoms at designated points at any one point in time.

#### DEFINITION OF INDICATOR

*Numerator:* Number of retail outlets and service delivery points that have condoms in stock at the time of a survey

*Denominator:* Total number of retail outlets and service delivery points that have been selected for the survey

*Note:* Sites in both urban and rural areas should be selected

#### MEASUREMENT

A number of sites of different types (i.e. pharmacies, clinics, bars and clubs) are randomly selected for a retail survey from a standard checklist of venues where condoms should be accessible, including bars and night clubs, different classes of retail shops, STI clinics and other service provision points. While the indicator gives a single summary figure, the data can also be disaggregated by outlet type.

**Platform:** Retail surveys (PSI protocol to evaluate social marketing programmes, WHO/GPA prevention indicator 3)

**Frequency:** quarterly

#### REFERENCES

- UNAIDS/MEASURE (2000) National AIDS Programs: A guide to monitoring and evaluation. Geneva: UNAIDS. <http://www.cpc.unc.edu/measure/guide/guide.html>

## PREVENTION INDICATOR (HIV-PI) 4:

### PROGRAMMES FOR SPECIFIC GROUPS Injection Drug Users (IDUs) reached with prevention services

Percentage of injecting drug users who are reached with HIV/AIDS prevention services.

#### RATIONALE

Providing services such as outreach, needle and syringe exchange programmes and drug dependence treatment, including substitution therapy, to injecting drug users is essential, especially in countries with a significant or growing drug-related HIV epidemic. The purpose of this indicator is to estimate to what extent HIV/AIDS prevention services are provided to injecting drug users.

#### DEFINITION OF INDICATOR

*Numerator:* Number of regular injecting drug users, who were, in the past month, reached with (outreach) prevention services plus the number of injecting drug users in drug dependence treatment, either longer-term drug-free or substitution therapy

*Denominator:* Estimated total number of injecting drug users

*Note:* Disaggregation by age and sex is recommended. For young people, this disaggregation would ideally be: 15-19 and 20-24.

#### MEASUREMENT

The selection of relevant information to calculate the indicator is a consultative process between all stakeholders in the field of HIV/AIDS prevention among injecting drug users. It is necessary, therefore, to discuss information collection and plan for future data-collection in a technical working group specifically dedicated to HIV/AIDS and injecting drug use. If there is no such working group, it is strongly recommended to establish one, which could function, for example, under the UN Theme Group on HIV/AIDS. Also, the working group must agree on the size of the numerator and the denominator. Often it will discover that essential information is lacking, or that existing information is unreliable. In such cases, the working group should develop mechanisms and standards for monitoring and data collection for the future.

To determine the numerator, it is necessary to review data of all the country's government and non-governmental treatment and outreach programmes and projects. This usually requires the establishment of an inventory of all ongoing governmental and non-governmental projects and programmes that provide face-to-face services (either information and counselling only, or information, counselling plus clean needles/syringes, or drug dependence therapies such as methadone treatment and abstinence-based programmes); it requires also that data from these programmes and projects are being collated. If a country has no inventory of ongoing programmes and projects, it is strongly recommended that a database be rapidly established, using, for example, the UNAIDS Country Response Information System, often referred to as CRIS or other methods.

Data from all relevant services are combined to calculate the numerator for this indicator; however, when reporting this indicator on a national basis, the types of services available (and the types included in the numerator) should be specified.

It may be problematic to ask for an age breakdown that results in inquiries about possibly illegal activities. A general age bracket of under 25 is recommended, therefore, as a core indicator, and an additional breakdown of under 18 is suggested as optional where appropriate.

A number of methods may be used to estimate of the actual size of a specific population vulnerable to HIV infection, in this case the number of injecting drug users in a country. These methods are designed to produce estimates of the size of populations that are hidden or hard to reach.



**Platform:** Programme monitoring (Service statistics from outreach projects and programmes, and treatment facilities for the numerator)

**Frequency:** Biennial

## REFERENCES

- UNAIDS (2002) Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on Construction of Core Indicators. Geneva: UNAIDS. [http://www.unaids.org/UNGASS/docs/JC718-CoreIndic\\_en.pdf](http://www.unaids.org/UNGASS/docs/JC718-CoreIndic_en.pdf)
- WHO-UNAIDS (2004) Guide to Monitoring and Evaluating National HIV/AIDS Prevention Programmes for Young People. Geneva. [http://www.who.int/hiv/pub/epidemiologu/me\\_prev\\_yp/en](http://www.who.int/hiv/pub/epidemiologu/me_prev_yp/en)

## PREVENTION INDICATOR (HIV-PI) 5:

### PROGRAMMES FOR SPECIFIC GROUPS IDUs: safe injecting and sexual practices

Percentage of IDUs who have adopted behaviours that reduce transmission of HIV, i.e. who both avoid sharing injecting equipment and use condoms

#### RATIONALE

Safe injecting and sexual practices among injecting drug users (IDUs) are essential, even in countries where other modes of HIV transmission predominate, because: (i) the risk of HIV transmission among IDUs using contaminated injecting equipment is extremely high; and (ii) IDUs can provide a reservoir of infection from which HIV spreads (e.g., through sexual transmission) to the wider population.

#### DEFINITION OF INDICATOR

*Numerator:* Number of respondents who report having never shared injecting equipment during the last month and who also reported that a condom was used the last time they had sex

*Denominator:* Number of respondents who report injecting drugs in the last month and having had sexual intercourse in the last month

*Note:* Analysis and reporting disaggregated by age: those less than 25 and those over 25, is recommended

#### MEASUREMENT

Survey respondents are asked the following sequence of questions:

1. Have you injected drugs at any time in the last month?
2. If the answer to question 1 is “yes”: Have you shared injecting equipment at any time in the last month?
3. Have you had sexual intercourse in the last month?
4. If the answers to questions 1 and 3 are both “yes”: Did you (or your partner) use a condom when you last had sex?

**Platform:** Time-location cluster sample survey or targeted snowball sample survey (see behavioural surveillance survey (BSS) manual)

**Frequency:** biennial

#### REFERENCES

- UNAIDS (2002) Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on Construction of Core Indicators. Geneva: UNAIDS. [http://www.unaids.org/UNGASS/docs/JC718-CoreIndic\\_en.pdf](http://www.unaids.org/UNGASS/docs/JC718-CoreIndic_en.pdf)
- FHI (2000) Behavioral Surveillance Surveys (BSS): guidelines for the repeated behavioral surveys in Populations at risk of HIV

## PREVENTION INDICATOR (HIV-PI) 6:

### PROGRAMMES FOR SPECIFIC GROUPS Young people's condom use with non-regular partners

Percentage of young people who had higher risk sex in the last year who used a condom at last higher risk sex

#### RATIONALE

This indicator is an UNGASS HIV/AIDS indicator, as well as a Millennium Development Goal indicator. It shows the extent to which condoms are used by young people who engage in nonregular sexual relationships.

When interpreting trends in this indicator, it should be noted that changes might reflect variations in the numbers of persons having high-risk sex and not necessarily variation in condom use during high risk sex. Thus, this indicator should be analysed carefully considering the changes in proportion of young people having high risk sex (sex with a non-cohabiting partner) to understand the programmatic implications.

#### DEFINITION OF INDICATOR

*Numerator:* The number of respondents aged 15-24 years who had sex with a non-cohabiting partner in the last 12 months and used a condom the last time they had sex with such a partner

*Denominator:* Respondents aged 15-24 years who had sex with a non-cohabiting partner in the last 12 months

*Note:* The target population for this indicator is 15-24 year olds. Analysis and reporting by gender and age is required. Age ranges should be: 15-19 and 20-24.

#### MEASUREMENT

Respondents are first asked if they have ever had sex. Among those who have, questions are asked about his/her last three partners. Information on the type of partner (such as spouse, live in partner, boyfriend/girlfriend, acquaintance, commercial sex worker) and whether a condom was used at last sex is asked for each of the last three partners in the last 12 months.

This indicator should be presented as a percentage, separately for males and females, in three age groups: 15-19, 20-24 and 15-24. For reporting progress towards UNGASS goals, the results for the 15-24 age-group should be reported separately for urban and rural residents.

**Platform:** Nationally representative general population survey

**Frequency:** preferably biennial; at a minimum every 4-5 years

#### REFERENCES

- WHO-UNAIDS (2004) Guide to Monitoring and Evaluating National HIV/AIDS Prevention Programmes for Young People. Geneva. [http://www.who.int/hiv/pub/epidemiologu/me\\_prev\\_yp/en](http://www.who.int/hiv/pub/epidemiologu/me_prev_yp/en)
- UNAIDS (2002) Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on Construction of Core Indicators. Geneva: UNAIDS. [http://www.unaids.org/UNGASS/docs/JC718-CoreIndic\\_en.pdf](http://www.unaids.org/UNGASS/docs/JC718-CoreIndic_en.pdf)

## PREVENTION INDICATOR (HIV-PI) 7:

### COUNSELLING AND TESTING Districts with testing and counselling services

The percent of districts with at least one operational counselling and testing site.

#### RATIONALE

This indicator is important to measure the coverage of counselling and testing services within a country by looking at the number of districts in which this service is available to the general public.

#### DEFINITION OF INDICATOR

*Numerator:* Number of districts with at least one operational counselling and testing site.

*Denominator:* Total number of districts

*Note:* Analysis and reporting by district is recommended

#### MEASUREMENT

The numerator will include different types of nongovernmental organization or government facilities, depending on the level of involvement of these sectors in providing counselling and testing services.

This information can be obtained from the Ministry of Health.

Data on the district population and HIV prevalence is useful to compare how the availability of services matches the need.

**Platform:** Health Systems records, Ministry of health

**Frequency:** Annual

#### REFERENCES

- UNAIDS/MEASURE (2000) National AIDS Programs: A guide to monitoring and evaluation. Geneva: UNAIDS. <http://www.cpc.unc.edu/measure/guide/guide.html>
- UNAIDS (2004) National AIDS programmes. A guide to monitoring and evaluating HIV/AIDS care and support. Geneva: UNAIDS (in preparation).

## PREVENTION INDICATOR (HIV-PI) 8:

### COUNSELLING AND TESTING People requesting counseling and testing

The percentage of the general population receiving an HIV test, the results, and post-test counselling, in the last 12 months

#### RATIONALE

HIV testing and counselling are important entry points for prevention and care needs. It is therefore important to measure the number of people who access these services, as an indicator of the number of people who could potentially benefit from prevention and care.

This indicator is designed to show how many people have been tested and received post-test counselling services.

For the program manager, this indicator would be a cascade that would be able to identify the following:

1. Number of individuals who received pre-test counselling and/or pre-test information sufficient to ensure informed consent
2. Percent of those tested who received pre-test counseling and actually tested
3. Percent of those tested who received their results
4. Percent of those tested who received post-test counselling

#### DEFINITION OF INDICATOR

*Numerator:* The number of people who have received HIV test results and post-test counselling in the last 12 months.

*Denominator:* Number of people surveyed or total population, depending on method of data collection

*Note:* Analysis and reporting by component and gender is recommended. It is suggested that data also be collected on those requesting an HIV test, receiving the test and receiving their results *in the last 12 months*. It is also recommended that data be disaggregated for those under 25 as follows: 15-19 and 20-24.

#### MEASUREMENT

The following methodologies are recommended:

1. Household survey

By asking respondents whether they have ever been tested and then asking whether they have been tested in the last 12 months, this indicator can be captured in a nationally-representative manner.

2. Health Management Information Systems (HMIS)

Ideally, information for this indicator can be collected by reviewing data collected at the local level(s) and available through the HMIS at the national level.

3. Health Facility Survey

Where HMIS are not fully operational, the use of health facility surveys with a testing and counselling component in all relevant units/departments may be necessary.



It is necessary to stratify the indicator by how these services are delivered. Specifically, by integrated (i.e. testing for diagnostic purposes) and vertical (i.e. stand alone VCT) service delivery.

The denominator, total population, can be obtained from the latest census data.

**Platform:** UNAIDS general population survey; DHS AIDS module; FHI adult BSS; youth BSS

**Frequency:** Annually

## REFERENCES

- UNAIDS/MEASURE (2000) National AIDS Programs: A guide to monitoring and evaluation. Geneva: UNAIDS. <http://www.cpc.unc.edu/measure/guide/guide.html>
- UNAIDS (2004) National AIDS programmes. A guide to monitoring and evaluating HIV/AIDS care and support. Geneva: UNAIDS (*in preparation*).

## PREVENTION INDICATOR (HIV-PI) 9:

### PREVENTION OF MOTHER TO CHILD TRANSMISSION Health facilities offering minimum package of PMTCT

The percentage of public, missionary, and workplace venues (family planning and primary health care clinics, ANC/MCH, and maternity hospitals) offering the minimum package of services to prevent HIV infection in infants and young children in the past 12 months.

#### RATIONALE

This indicator provides critical information on the national availability of prevention and care efforts for women and infants. It is useful to programme planners in determining where services may be needed, or where facilities are providing the full spectrum of services to prevent HIV infection in women and infants.

#### DEFINITION OF INDICATOR

*Numerator:* Number of public, missionary, and workplace venues (family planning and primary health care clinics, ANC/MCH, and maternity hospitals) offering the minimum package of services to prevent HIV infection in infants and young children in the past 12 months.

*Denominator:* All public, missionary, and workplace venues (family planning and primary health care clinics, ANC/MCH, and maternity hospitals)

*Note:* Analysis and reporting by type of service is recommended

#### MEASUREMENT

The information required for this indicator can be collected through a variety of different methods, and depends on resource availability as well as the amount of detail sought. It focuses on the minimum package of services which is defined by the type of clinical setting (see reference below). One option is to send a questionnaire to all public, missionary and workplace health facilities offering family planning and primary health care clinics, ANC/MCH, and maternity services. Another way to collect the relevant information is by adapting other instruments that already exist.

**Platform:** Health facility surveys

**Frequency:** 2-3 years

#### REFERENCES

- WHO (2004) National guide to monitoring and evaluating programmes for the prevention of HIV in infants and young children. Geneva: WHO (in preparation).

## PREVENTION INDICATOR (HIV-PI) 10:

### PREVENTION OF MOTHER TO CHILD TRANSMISSION HIV-infected pregnant women receiving a complete course of antiretroviral prophylaxis to reduce the risk of MTCT

Percentage of HIV positive pregnant women receiving a complete course of ARV prophylaxis to reduce MTCT in accordance with nationally approved treatment protocol (or WHO/UNAIDS standards) in last 12 months.

#### RATIONALE

This indicator assesses the progress in preventing mother to child HIV transmission through the provision of ARV prophylaxis.

#### DEFINITION OF INDICATOR

*Numerator:* Number of HIV positive pregnant women receiving a complete course of ARV prophylaxis to reduce the likelihood of MTCT in accordance with nationally approved treatment protocol (or WHO/UNAIDS standards) in last 12 months.

*Denominator:* Estimated number of HIV-infected pregnant women giving birth in last 12 months.

*Note:* Break down by type of service is recommended

#### MEASUREMENT

The number of HIV-infected pregnant women provided with antiretroviral prophylaxis to reduce the risk of MTCT in the last 12 months is obtained from programme monitoring records. Only those women who completed the full course should be included. The number of HIV-infected pregnant women to whom antiretroviral prophylaxis to reduce the risk of MTCT *could potentially have been given* is estimated by multiplying the total number of women who gave birth in the last 12 months (Central Statistics Office estimates of births) by the most recent national estimate of HIV prevalence in pregnant women (HIV sentinel surveillance antenatal clinic estimates).

**Platform:** Programme monitoring records  
Central Statistics Office estimates of births

**Frequency:** 2-3 years

#### REFERENCES

- UNAIDS (2002) Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on Construction of Core Indicators. Geneva: UNAIDS. [http://www.unaids.org/UNGASS/docs/JC718-CoreIndic\\_en.pdf](http://www.unaids.org/UNGASS/docs/JC718-CoreIndic_en.pdf)

## PREVENTION INDICATOR (HIV-PI) 11:

### STI DIAGNOSIS AND TREATMENT STI comprehensive case management

Percentage of patients with STIs at health care facilities who are appropriately diagnosed, treated and counselled.

#### RATIONALE

The availability and utilization of services to treat and contain the spread of STIs can reduce the rate of HIV transmission within a population. One of the corner stones of STI control is comprehensive case management of patients with symptomatic STIs. This composite indicator reflects the competence of health service providers to appropriately provide these services, and the quality of services provided.

#### DEFINITION OF INDICATOR

*Numerator:* Number of STI patients for whom the correct procedures were followed on: (i) history taking; (ii) examination; (iii) diagnosis and treatment; and (iv) effective counselling on partner notification, condom use and HIV testing

*Denominator:* Number of STI patients for whom provider-client interactions were observed

*Note:* Disaggregation by gender and for patients under and over 25 years of age is recommended. Ideally, ages under 25 would be disaggregated as follows: 15-19 and 20-24.

Scores for each component of the indicator (i.e., history taking, examination, diagnosis and treatment, and counselling) must be reported as well as the overall indicator score

#### MEASUREMENT

Data are collected in observations of provider-client interaction at a sample of health care facilities offering STI services. Providers are assessed on history taking, examination, proper diagnosis and treatment of patients, and effective counselling including counselling on partner notification, condom use and HIV testing. "Appropriate" diagnosis and treatment and counselling procedures in any given country, are those specified in national STI service guidelines.

**Platform:** Health facility survey – based on WHO/UNAIDS revised guidelines on evaluating STI services and/or MEASURE service provision assessment (SPA)

**Frequency:** biennial

#### REFERENCES

- UNAIDS (2002) Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on Construction of Core Indicators. Geneva: UNAIDS. [http://www.unaids.org/UNGASS/docs/JC718-CoreIndic\\_en.pdf](http://www.unaids.org/UNGASS/docs/JC718-CoreIndic_en.pdf)

## PREVENTION INDICATOR (HIV-PI) 12:

### BLOOD SAFETY AND UNIVERSAL PRECAUTIONS Districts with access to donor recruitment and blood transfusion

Percent of districts or regions with access to blood transfusion services which do not pay blood donors, and do not recruit donors from among relatives of the patient.

#### RATIONALE

Many countries working to improve access to safe blood have established blood transfusion services including blood banks at the regional or district level, and are working systematically to enhance the recruitment of voluntary donors, and to reduce or eliminate reliance on blood donations from relatives and paid donors. This indicator assesses to what extent this has been implemented at the level dictated by national policy.

#### DEFINITION OF INDICATOR

*Numerator:* Number of districts or regions with access to blood transfusion services which do not pay blood donors, and do not recruit donors from among relatives of the patient

*Denominator:* Total number of districts or regions

#### MEASUREMENT

A district or region is considered to score positively on this indicator if at least 95% of blood transfused is supplied by a regional or provincial blood transfusion service that screens donors for risk behaviours and excludes donations from relatives and paid donors.

**Platform:** MEASURE Evaluation Draft Blood Safety Protocol

**Frequency:** quarterly

#### REFERENCES

- UNAIDS/MEASURE (2000) National AIDS Programs: A guide to monitoring and evaluation. Geneva: UNAIDS. <http://www.cpc.unc.edu/measure/guide/guide.html>

## PREVENTION INDICATOR (HIV-PI) 13:

### BLOOD SAFETY AND UNIVERSAL PRECAUTIONS Transfused blood units screened for HIV

The percentage of blood units transfused in the last 12 months that have been adequately screened for HIV according to national or WHO guidelines.

#### RATIONALE

Blood safety programmes aim to ensure that the overwhelming majority (ideally 100 percent) of blood units are screened for HIV, and those that are included in the national blood supply are indeed uninfected. This indicator gives an idea of the overall percentage of blood units that have been screened to high enough standards that they can confidently be declared free of HIV.

#### DEFINITION OF INDICATOR

*Numerator:* Number of blood units screened for HIV in the previous 12 months, and among those, the number screened up to WHO or national standards

*Denominator:* Total number of blood units transfused in the previous 12 months

*Note:* Break down by components of the indicator is recommended

#### MEASUREMENT

The number of units transfused and the number screened for HIV should be available from health information systems. Quality of screening may be determined from a special study that re-tests a sample of blood previously screened, or from an assessment of the conditions under which screening occurred. In situations where this approach is not feasible, data on the percentage of facilities with good screening and transfusion records and no stockouts of test kits may be used to estimate adequately screened blood for this indicator.

**Platform:** MEASURE Evaluation Draft Blood Safety Protocol

**Frequency:** every 2-3 years

#### REFERENCES

- UNAIDS/MEASURE (2000) National AIDS Programs: A guide to monitoring and evaluation. Geneva: UNAIDS. <http://www.cpc.unc.edu/measure/guide/guide.html>

## TREATMENT INDICATOR (HIV-TI) 1:

### ANTIRETROVIRAL TREATMENT AND MONITORING People with advanced HIV infection receiving antiretroviral combination therapy

Percentage of people with advanced HIV infection receiving antiretroviral combination therapy

#### RATIONALE

As the HIV pandemic matures, increasing numbers of people are reaching advanced stages of HIV infection. Antiretroviral combination therapy has been shown to reduce mortality amongst those infected and efforts are being made to make it more affordable even within less developed countries. Antiretroviral combination therapy should be provided in conjunction with broader care and support services including counselling for family caregiver.

#### DEFINITION OF INDICATOR

*Numerator:* Number of people with advanced HIV infection who receive antiretroviral combination treatment according to the nationally approved treatment protocol (or WHO/UNAIDS standards)

*Denominator:* Number of people with advanced HIV infection

*Note:* This indicator should be disaggregated by public/private services

#### MEASUREMENT

The numerator of this indicator consists of the number of people receiving treatment at start of year plus the number of people who commenced treatment in the last 12 months minus the number of people for whom treatment was terminated in the last 12 months (including those who died). The number of people with advanced HIV infection is assumed to be 15% of the total number of people currently infected (for the purposes of this indicator). The latter is estimated using the most recent national sentinel surveillance data. The start and end dates of the period for which the number of people given antiretroviral therapy is given should be stated. Overlaps between reporting periods should be avoided wherever possible.

**Platform:** Programme monitoring

**Frequency:** Biennial

#### REFERENCES

- UNAIDS (2002) Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on Construction of Core Indicators. Geneva: UNAIDS. [http://www.unaids.org/UNGASS/docs/JC718-CoreIndic\\_en.pdf](http://www.unaids.org/UNGASS/docs/JC718-CoreIndic_en.pdf)

## TREATMENT INDICATOR (HIV-TI) 2:

### ANTIRETROVIRAL TREATMENT AND MONITORING Health facilities capable of providing advanced interventions for prevention and medical treatment for HIV infected persons

Percentage of facilities with the capacity and conditions to provide advanced level HIV care and support services, including provision of ART

#### RATIONALE

This indicator measures the capacity of services specific to people living with HIV/AIDS. It is assumed that the systems and items measured in this indicator require substantial input and personnel training beyond what is routine for most health systems.

#### DEFINITION OF INDICATOR

*Numerator:*

1. Number of facilities with some components describing a list of advanced level services (see below for the list of services)
2. Number of facilities with all components for all services

*Denominator:*

1. Total number of health facilities surveyed
2. Total number of facilities where identified services are offered or relevant

*Note:* The specific components for each service should be presented individually

#### MEASUREMENT

The capacity to provide advanced level HIV/AIDS care includes: systems and items to support management of opportunistic infections and provision of palliative care for advanced care of clients with HIV/AIDS; systems and items to support advanced services for HIV/AIDS care; systems and items to support ART services; conditions to provide advanced inpatient care for clients with HIV/AIDS; conditions to support home care services; and post-exposure prophylaxis.

**Platform:** Health facility surveys

**Frequency:** every 2-4 years

#### REFERENCES

- UNAIDS (2004) National AIDS programs. A guide to monitoring and evaluating HIV/AIDS care and support. Geneva: UNAIDS (in preparation)

## TREATMENT INDICATOR (HIV-TI) 3:

### PROPHYLAXIS AND TREATMENT FOR OPPORTUNISTIC INFECTIONS Health facilities with capacity to deliver basic level counseling and medical services for HIV/AIDS

Percentage of health facilities with the capacity and conditions to provide basic level HIV testing and HIV/AIDS clinical management

#### RATIONALE

Many facilities that provide general curative care also provide services related to HIV/AIDS and are caring for HIV-infected clients. It is, therefore, essential to evaluate the status of existing capacity.

#### DEFINITION OF INDICATOR

*Numerator:*

1. Number of facilities with some components describing a list of basic services (see below for the list of services)
2. Number of facilities with all components for all services

*Denominator:*

1. Total number of health facilities surveyed
2. Total number of facilities where identified services are offered or relevant

*Note:* The specific components for each service should be presented individually

#### MEASUREMENT

The capacity to provide basic HIV counselling and medical services includes: a system for testing and providing results for HIV/AIDS; systems and qualified staff for pre- and post-test counselling; specific medical services relevant to HIV/AIDS including resources and supplies for providing these services; elements for prevention of nosocomial infections; trained staff and resources for providing basic interventions for prevention and medical treatment for HIV-infected persons.

**Platform:** Health facility surveys

**Frequency:** every 2-4 years

#### REFERENCES

- UNAIDS (2004) National AIDS programmes. A guide to monitoring and evaluating HIV/AIDS care and support. Geneva: UNAIDS (in preparation)

## CARE AND SUPPORT (HIV-CS) 1:

### SUPPORT FOR ORPHANS Orphans and other children made vulnerable by HIV/AIDS whose households received free basic external support

Percentage of orphans and vulnerable children whose households received, free of user charges, basic external support in caring for the child.

#### RATIONALE

This indicator measures support coming from a source other than friends, family or neighbours (unless they are working for a community-based group or organization) given free of user charges to households with orphans and vulnerable children.

#### DEFINITION OF INDICATOR

*Numerator:* Number of orphans and vulnerable children residing in households that received at least one of the following services:

- medical care support within the past 12 months;
- emotional support within the past 3 months;
- school-related assistance within the past 12 months;
- other social support, including material support, within the past 3 months; and

*Denominator:* Total number of orphans and vulnerable children

*Note:* Data should be analysed and reported by age (0–5, 6–9, 10–14 and 15–17 years) and gender when sample size allows. Depending on the epidemiological situation and available resources, programme managers may decide to aggregate age data into larger ranges (0–9, 10–14 and 15–17 years).

#### MEASUREMENT

As part of a household survey, household rosters can be used to identify all eligible orphans and vulnerable children (under 18 years of age). For each household with orphans and vulnerable children, a series of questions is asked about the types and **frequency** of support received and the primary source of the help. This indicator focuses on support to households with OVC, not to individual OVCs. This survey tool may also be used in low-prevalence settings or targeted populations with similar but adapted methods.

**Platform:** Household surveys

**Frequency:** every 2-4 years

#### REFERENCES

- UNAIDS/UNICEF (2004). Guide to monitoring and evaluation of the national response for children orphaned and made vulnerable by HIV/AIDS. (in preparation)
- UNAIDS (2004) National AIDS programmes. A guide to monitoring and evaluating HIV/AIDS care and support. Geneva: UNAIDS (in preparation)

## CARE AND SUPPORT (HIV-CS) 2:

### SUPPORT FOR ORPHANS Orphan's school attendance

Ration of school attendance among orphans to that among non-orphans

#### RATIONALE

HIV/AIDS is claiming lives of ever-growing numbers of adults just when they are forming families and bringing up children. As a result, orphan prevalence is rising steadily in many countries, while fewer relatives within the prime adult ages mean that orphaned children face an increasingly uncertain future. Orphanhood is frequently accompanied by prejudice and increased poverty- factors that can further jeopardize children's chances of completing school education and may lead to the adoption of survival strategies that increase vulnerability to HIV. It is important, therefore, to monitor the extent to which AIDS support programmes succeed in securing the educational opportunities of orphaned children.

#### DEFINITION OF INDICATOR

*Orphan's school attendance (1):*

*Numerator:* Number of children who have lost both parents and are still in school

*Denominator:* Number of children who have lost both parents

*Non-orphan's school attendance (2):*

*Numerator:* Number of children, (10-14 years old) both of whose parents are still alive, who live with at least one parent and who are still in school

*Denominator:* Number of children (10-14 years old) whose parents are both still alive and who live with at least one parent

*Calculate the ration of (1) to (2)*

*Note:* Indicator scores are required for all children aged 10-14 years and for boys and girls, separately. Where possible, the indicator should also be calculated by single year of age. The minimum number of orphaned 10-14 year-old children needed to calculate this indicator is 50.

#### MEASUREMENT

Population-based surveys such as DHS, UNICEF MICS, or other representative survey

**Platform:** N/A

**Frequency:** preferred biennial, but at the minimum every 4-5 years.

#### REFERENCES

- UNAIDS (2002) Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on Construction of Core Indicators. Geneva: UNAIDS. [http://www.unaids.org/UNGASS/docs/JC718-CoreIndic\\_en.pdf](http://www.unaids.org/UNGASS/docs/JC718-CoreIndic_en.pdf)

## SUPPORTIVE ENVIRONMENT (HIV-SE) 1:

### WORKPLACE

#### Companies with HIV/AIDS workplace policies and programmes

Percentage of large enterprises/companies which have HIV/AIDS workplace policies and programmes.

#### RATIONALE

The workplace is often a highly convenient and conducive setting for HIV control activities and workplace-based interventions have been proven to be effective. The indicator is useful even in countries where HIV prevalence is low because early action in educating workers on HIV prevention is essential if the serious economic and social consequences of HIV/AIDS are to be avoided.

#### DEFINITION OF INDICATOR

*Numerator:* Number of employers with HIV/AIDS policies and regulations that meet all\* criteria

*Denominator:* Number of employers surveyed

*Note:* Analysis and reporting by private/public sectors and combined is recommended

#### MEASUREMENT

Private sector employers are selected on the basis of the size of the labour force. Public sector employers should be the ministries of transport, labour, tourism, education and health. Employers are asked to state whether they are currently implementing personnel policies and procedures that cover a minimum of specified aspects (\*see reference for details). Copies of written personnel policies and regulations should be obtained and assessed wherever possible.

**Platform:** Survey of the 30 largest employers – 25 private sector; 5 public sector

**Frequency:** Biennial

#### REFERENCES

- UNAIDS (2002) Monitoring the Declaration of Commitment on HIV/AIDS: Guidelines on Construction of Core Indicators. Geneva: UNAIDS. [http://www.unaids.org/UNGASS/docs/JC718-CoreIndic\\_en.pdf](http://www.unaids.org/UNGASS/docs/JC718-CoreIndic_en.pdf)

## SUPPORTIVE ENVIRONMENT (HIV-SE) 2:

### Adult support of youth education on condom use

Percentage of adults who support young people being educated about using a condom to prevent HIV/AIDS

#### RATIONALE

Adult perceptions of HIV prevention programmes for young people are crucial to programme success, given the key role that adults play in shaping attitudes and perceptions of adolescents. If parents and adults in the community disapprove of a programme, their lack of support often influences the attitude and behaviour of young people. The importance of adult perceptions and support is demonstrated in a recent study in Zambia, which found that trends in adolescents' use of reproductive health services were strongly associated with adult acceptance of the provision of such services to youth rather than with attributes of the services themselves.

#### DEFINITION OF INDICATOR

*Numerator:* Number of adults who agree that young people aged 12-14 years should be taught about using condoms to prevent HIV/AIDS\*

\* NOTE: The DHS version of this indicator limited the question to children aged 12 to 14, and for this reason countries may want to keep this limit. Also, this age group is likely to represent, in most settings, young people before their sexual debut, which is a crucial time to begin education on sexuality. The specific age group could be adjusted to the local situation, however, according to the median age of first sex.

*Denominator:* All adults (aged 18 and higher)

*Note:* Analysis and reporting by private/public sectors and combined is recommended

#### MEASUREMENT

This indicator is based on existing questions addressed in the DHS. It assesses the general level of support among adults for programmes of adolescent-focused information and skills. In a household survey, adults are asked whether young people should be taught about the use of condoms to prevent HIV/AIDS.

The most important group are, ostensibly, parents of adolescents, and depending on the survey, it might be possible to disaggregate the data to provide data specifically for this group. However, adult opinions in general are influential on the programmes and services provided for young people and therefore knowing about "general" adult attitudes is informative. If even more detailed information is desired on the support (or its lack) by "type" of influential adult, the same information can be measured from interviews with selected key informants. Such interviews can yield deeper understanding of the level of adult support for, or resistance to, HIV prevention programmes for young people, and reveal differences between support for programmes for older and younger adolescents.

**Platform:** Nationally representative general population survey

**Frequency:** Annual

#### REFERENCES

- WHO-UNAIDS (2004) Guide to Monitoring and Evaluating National HIV/AIDS Prevention Programmes for Young People. Geneva. [http://www.who.int/hiv/pub/epidemiologu/me\\_prev\\_yp/en](http://www.who.int/hiv/pub/epidemiologu/me_prev_yp/en)

**ANNEX B:**  
**Description of TB Indicators**

**Note:** The indicators presented in this annex are a selection from a larger, more comprehensive list of available indicators in each disease area. Readers are encouraged to refer to the full list of indicator resources listed under “Guidelines” for each HIV/AIDS, TB, and malaria in order to obtain a comprehensive overview of ALL core and additional indicators available for their use.

## PREVENTION INDICATOR (TB-PI) 1:

### IDENTIFICATION OF INFECTIOUS CASES New smear positive TB cases detected under DOTS

Proportion of new smear-positive TB cases detected among the total estimated number of new smear-positive TB cases per year.

#### RATIONALE

This indicator measures the DOTS programme's ability to detect and identify smear-positive cases. If a country has low case detection, it may reflect incomplete reporting, limited coverage or utilization of facilities that provide DOTS, or insufficient referral of TB suspects for diagnosis. Low case detection may indicate that supplemental approaches to detecting new cases may be required. For example, the country may explore implementing DOTS in the private and NGO sectors as well as other areas where cases would be likely to present themselves. It is possible for the calculated detection rate to exceed 100 percent due to intense case finding in an area that has a backlog of chronic cases, over-reporting, over-diagnosis and the under-estimation of incidence. A case detection rate of 70% or greater is the national or global target.

#### DEFINITION OF INDICATOR

*Numerator:* Annual number of new smear-positive TB cases detected

*Denominator:* Total annual number of estimated new smear-positive TB cases (incidence)

#### MEASUREMENT

**Measurement of this indicator is done at national level only, on an annual basis.**

The numerator is the number of smear-positive cases reported to the national TB control programme (reports ultimately come from TB Registers in each operational unit). The denominator is the estimated number of new smear-positive cases annually countrywide, an estimation made by WHO. (These estimations are reported every year by WHO in the annual "Global Tuberculosis Control" report.)

**Platform:** Quarterly reports,; WHO estimated incidence for countries

**Frequency:** Annually

**Level:** National

#### REFERENCES

- WHO. Compendium for monitoring TB control activities (in preparation)
- WHO. Global Tuberculosis Control Report 2004 (WHO/HTN/TB/2004.331, <http://www.who.int/gtb>)

## TREATMENT INDICATOR (TB-TI) 1:

### TIMELY DETECTION AND TREATMENT OF CASES Population covered by DOTS

Percentage of the population living in administrative areas that are defined as DOTS areas.

#### RATIONALE

This indicator is a simple easily collected measure of the availability of DOTS within a country, that is useful particularly in the early stages of DOTS implementation. It only measures availability of DOTS services within a given administrative area; it does not measure access or equality of access to those services.

#### DEFINITION OF INDICATOR

*Numerator:* Population living in administrative areas that are defined as DOTS areas, as per national guidelines

*Denominator:* Total population of all administrative areas

#### MEASUREMENT

This indicator can be calculated quarterly or annually. Ideally, a national TB control programme will have recorded the year/quarter when each administrative unit (e.g., district) officially became a “DOTS” unit, as per national guidelines, and will also have available (from the appropriate Ministry) the populations living in these administrative units.

**Platform:** NTP records; census data.

**Frequency:** This indicator should be measured on an annual basis.

**Target:** The target is to make DOTS available to 100% of the population.

#### REFERENCES

- WHO. Global Tuberculosis Control Report 2004.  
<http://www.who.int/gtb/publications/globrep/index.html>

## TREATMENT INDICATOR (TB-TI) 2:

### TIMELY DETECTION AND TREATMENT OF CASES Smear- positive TB cases registered under DOTS who are successfully treated

Percent of new smear positive pulmonary TB cases that are successfully treated.

#### RATIONALE

Evaluation of successful treatment outcomes of new pulmonary smear-positive patients is used to determine the quality and effectiveness of DOTS implementation at all levels.

#### DEFINITION OF INDICATOR

*Numerator:* Number of new smear positive pulmonary TB cases registered under DOTS in a specified period that subsequently were successfully treated (sum of WHO outcome categories 'cured' plus 'treatment completed').

*Denominator:* Total number of new smear positive pulmonary TB cases registered under DOTS in the same period

#### MEASUREMENT

Each sputum smear positive TB case is assigned a treatment outcome, which is recorded in the TB Register. Outcomes for all cases are reported by registration period (usually a quarter) one year after initial registration.

**Platform:** TB Register; quarterly reports of treatment outcomes (TB-08)

**Frequency:** quarterly and annual basis

**Target:** A treatment success rate of 85 percent or greater is the global target.

#### REFERENCES

- WHO. Compendium for monitoring TB control activities (in preparation)

## TREATMENT INDICATOR (TB-TI) 3:

### CONTROL OF DRUG RESISTANCE New smear-positive cases registered under DOTS that fail treatment

Percent of new smear positive pulmonary TB cases that fail treatment.

#### RATIONALE

In addition to monitoring treatment success it is important to examine the undesirable outcomes of TB treatment specifically treatment failure. Treatment failure rate is available to all programmes and it can be a useful indicator of multidrug resistance when a high proportion of cases have a follow up sputum at or near the end of treatment.

#### DEFINITION OF INDICATOR

*Numerator:* Number of new smear positive pulmonary TB cases registered in a specified period that meet the WHO definition of treatment failure (smear positive after 5 months or longer of TB treatment) when their outcome is reported.

*Denominator:* Total number of new smear positive pulmonary TB cases registered in the same period

#### MEASUREMENT

At the end of the treatment course, each sputum smear positive TB case is assigned a treatment outcome, which is recorded in the TB Register.

**Platform:** Quarterly reports of treatment outcomes (TB-08)

**Frequency:** quarterly and annual basis

#### REFERENCES

- WHO. Compendium for monitoring TB control activities (in preparation)

**ANNEX C:**  
**Description of TB/HIV Indicators**

**Note:** The indicators presented in this annex are a selection from a larger, more comprehensive list of available indicators in each disease area. Readers are encouraged to refer to the full list of indicator resources listed under “Guidelines” for each HIV/AIDS, TB, and malaria in order to obtain a comprehensive overview of ALL core and additional indicators available for their use.

## PREVENTION INDICATOR (TB/HIV-PI) 1:

### Prevention of TB among PLWHA HIV seroprevalence among TB patients

Number of all newly registered TB patients who are HIV positive, expressed as a proportion of all newly registered TB patients.

#### RATIONALE

Surveillance of HIV prevalence among TB patients will give information about the epidemics of both TB and HIV. In particular it gives an indication of the degree of overlap in the epidemics in any given setting and when compared with the HIV prevalence in the general population will give an indication of the contribution that HIV is making to the TB epidemic in any given setting. If data from routine HIV testing within the TB service are used see TB Treatment indicator T11.

#### DEFINITION OF INDICATOR

*Numerator:* Total number of newly registered TB patients who are HIV positive, over a given time period

*Denominator:* Total number of newly registered TB patients (registered over the same given time period) who were tested for HIV and included in the surveillance system.

**MEASUREMENT<sup>1</sup>:** Selecting the appropriate strategy for HIV surveillance among TB patients will depend mainly on the existing surveillance system and the underlying HIV epidemic state in a country. There are three main methods for surveillance of HIV among TB patients:

**Routine HIV testing** data can form the basis of a reliable surveillance system at all levels of HIV epidemic (low-level, concentrated, generalised<sup>2</sup>), provided that high coverage is achieved (more than 80% of all TB patients giving consent and being tested). These routine data can be calibrated by periodic (special) or sentinel surveys. **Sentinel surveillance** collects information in a regular and consistent way from a predetermined number of persons from specific sites and population groups that are of particular interest or are representative of a larger population. The difficulty with sentinel surveillance is in determining how representative they are of the population from which they are taken and also how representative they are of the general population of TB patients. Sentinel surveillance systems are usually based on unlinked anonymous testing methods, often using blood specimens that have been collected for other purposes and stripped of all identifying markers. Periodic **special surveys** have a specific role where the prevalence of HIV among TB patients has not been previously estimated and are an essential part of the initial assessment of the situation. Surveys using representative sampling methods and appropriate sample sizes can provide accurate estimates of the burden of HIV in TB patients. This information may alert TB programmes to a potential HIV problem and enable action to be taken, which may include the institution of more systematic surveillance.

Ideally surveillance of HIV prevalence should include all newly registered TB patients, diagnosed according to international standards<sup>3</sup>. However, if periodic special surveys or sentinel methods are used and resources are limited, countries may choose to include only adult smear-positive pulmonary patients i.e. those with a definitive diagnosis of TB. Countries with scarce resources where the HIV epidemic state is either low or concentrated may also choose to only include a smaller subgroup of TB patients e.g. adults aged 15 to 59 years.



<sup>1</sup> Further detail on HIV surveillance in TB patients can be found in the WHO Revised guidelines for the surveillance of HIV among people with TB (in preparation)

<sup>2</sup> Classified according to the WHO definitions **Low level HIV epidemic:** HIV prevalence has not consistently exceeded 5% in any defined sub-population at risk of HIV. **Concentrated:** HIV prevalence consistently over 5% in at least one defined sub-population but HIV prevalence below 1% in pregnant women in urban areas **Generalised:** HIV prevalence consistently above 1% in pregnant women in urban areas. World Health Organization /UNAIDS. *Guidelines for second generation HIV surveillance*. Geneva: World Health Organization and the Joint United Nations Programme on HIV/AIDS; 2000. WHO document WHO/CDS/CSR/EDC/2000.5 & UNAIDS/00.03E.

<sup>3</sup> World Health Organization. *WHO Treatment of tuberculosis guidelines for National programmes*, 2003. WHO document WHO/CDS/TB

Relapse cases should be excluded from surveillance systems, because of the risk of surveying the same patient twice, unless they are identified as such and the results are analysed separately. However, relapse cases may be included and need not be identified as such, if surveillance is based on survey methods and these surveys are undertaken over a short period of time, ideally less than 2 -3 months.

All countries with a **generalised HIV epidemic state** should aim to ensure that HIV counselling and testing are offered and actively promoted to all TB patients, in conjunction with ART where possible, and this routine data used as the basis for surveillance, if >80% of TB patients are tested. These routine data can be calibrated by periodic special or sentinel surveys. In the absence of universal access to HIV testing and counselling for all TB patients, then special surveys or sentinel surveys are suitable alternatives. In countries with a **concentrated epidemic state** HIV counselling and testing for all TB patients should form the basis for the surveillance. If this system is not yet in place, then periodic (special) surveys or sentinel surveys are suitable alternatives. In countries with a **low level HIV epidemic state** where HIV testing is not routinely offered to TB patients, special surveys or sentinel surveys can be conducted at 2-3 yearly intervals.

At present there is insufficient evidence to recommend the use of sputum testing for HIV as a valid alternative to serological tests for HIV surveillance.

**Platform:** Routine data from HIV counselling and testing of TB patients collected continuously in a modified TB register or separate TB/HIV register, sentinel surveillance or special surveys.

**Frequency:** In the absence of a national recording and reporting system where data are continuously collected and reported quarterly, data should be collected every 2-3 years. In countries where HIV prevalence level in TB patients is low (<5%) and which have a stable and low HIV epidemic state and TB burden in the general population, periodic surveys may be repeated at 5 yearly intervals. In resource poor countries, where the HIV and TB burden in the general population may be concentrated or generalised, but where the institution of more systematic methods of surveillance is not possible, special surveys should be undertaken at least every 3- 5 years.

## REFERENCES

- WHO. Guidelines for HIV surveillance in tuberculosis patients (WHO/HTM/TB/2004.339, WHO/HIV/2004.06, UNAIDS/04.30E)
- World Health Organization (2004). Guide to monitoring and evaluation for collaborative TB/HIV activities (WHO/HTM/TB/2004.342)

## PREVENTION INDICATOR (TB/HIV-PI) 2:

### PREVENTION OF TB AMONG PLWHA Treatment of latent TB infection for PLWHA

Number of newly diagnosed HIV positive clients who are given treatment of latent TB infection (TB preventive therapy) expressed as a proportion of the total number of newly diagnosed HIV positive people.

#### RATIONALE

This indicator is used to ensure that eligible HIV positive individuals are given treatment of latent TB infection and thus reduce the incidence of TB in PLWHA.

#### DEFINITION OF INDICATOR

*Numerator:* Total number of newly diagnosed HIV positive clients in whom active TB has been excluded who start (given at least one dose) treatment of latent TB infection.

*Denominator:* Total number of newly diagnosed HIV positive clients.

#### MEASUREMENT

The data needed for this indicator can be collected in all situations where counselling and testing for HIV is conducted e.g. VCT centres, PMTCT sites, inpatient medical services or at HIV care services, depending on where TB preventive therapy (TBPT) is to be administered. In all these situations HIV positive clients should be screened for TB, as suggested in indicator B1.1. Those clients found NOT to have evidence of active TB will be offered according to nationally determined guidelines. All those accepting IPT and receiving at least the first dose of treatment should be recorded. This information could be recorded in an extra column in the HIV care register. To accurately predict drug requirements for supply management more detailed information will need to be collected. For this purpose a TBPT register is required where client attendance to collect further drug supplies (usually monthly) is recorded. From this facilities would be able to report the number of new cases, continuing cases and completed cases on a quarterly basis. If such information is collected routinely then the indicator of choice would be 'the number of HIV-positive clients completing treatment of latent TB infection, as a proportion of the total number of HIV positive clients started on treatment of latent TB infection'. From pilot testing sites it is apparent that between 10-50% of clients who test HIV-positive can be expected to start TBPT, some will not meet the eligibility criteria, some will decline and some will drop out during the screening process. The proportion likely to start TBPT depends on the screen used (e.g. using tuberculin skin test as a screening tool reduces the number that are eligible), and also on the type of VCT facility. If a VCT facility sees mostly hospital or clinical referrals then a greater proportion would be expected to be sick and not eligible for Treatment of latent TB infection. Higher proportions would be expected from sites linked to PMTCT or stand-alone VCT centres. Most programmes would aim for between 30 and 50% depending on the types of HIV testing and counselling facilities available.

**Platform:** Modified HIV testing register, HIV care register or TBPT register.

**Frequency:** The data would be collected continuously and reported and analysed quarterly.

#### REFERENCES

- World Health Organization (2004). Guide to monitoring and evaluation for collaborative TB/HIV activities (WHO/HTM/TB/2004.342)

<sup>1</sup> TB preventive therapy (TBPT) is given to individuals with latent infection with *Mycobacterium tuberculosis* in order to prevent progression to active disease. Several drug regimens are effective in treating latent TB infection; however isoniazid preventive therapy (IPT) has been shown to be safer and more effective than other regimens and is currently the only regimen recommended in *Policy statement on preventive therapy against tuberculosis in people living with HIV: report of a meeting held in Geneva 18-20 February 1998*. Geneva, World Health Organisation, WHO/TB/98.225; UNAIDS/98.34.

## TREATMENT INDICATOR (TB/HIV-TI) 1:

### HIV/TB Intensified TB case finding among PLWHA

Number of PLWHA, attending HIV testing and counselling or HIV treatment and care settings, who were screened for TB symptoms expressed as a proportion of all PLWHA attending HIV testing and counselling or HIV treatment and care settings.

#### RATIONALE

This is a process indicator for an activity intended to reduce the impact of TB among PLWHA. It will demonstrate the level of implementation of the recommendation that PLWHA are screened for TB at diagnosis and at all follow up visits.

#### DEFINITION OF INDICATOR

*Numerator:* Number of PLWHA seen at HIV testing and counselling or HIV treatment and care settings who were screened for TB symptoms, over a given time period

*Denominator:* Total number of PLWHA seen at HIV testing and counselling or HIV treatment and care settings, over the same given time period.

This can be reported as a total or separately by facility type for each situation where HIV care and support is provided or HIV counselling and testing is conducted e.g. number of HIV positive clients newly diagnosed at VCT centre or number of HIV positive clients who attend for annual check up who are screened for TB symptoms.

#### MEASUREMENT

Data should be collected routinely at all HIV testing and counselling facilities (e.g. VCT centres, PMTCT providers, medical inpatient wards, private sector) and any situation where regular HIV care and support are provided (e.g. ART clinics, HIV care clinics, PLWHA support groups).

A suggested method of conducting the screening would be to ask HIV positive clients whether they are currently on TB treatment. If not, they are then asked about the key symptoms of TB disease (e.g. cough, fever, night sweats, recent weight loss, lymphadenopathy). A simple checklist could be used and any positive response would indicate that the individual may be a TB suspect. TB control programme protocols should define the criteria for identifying a TB suspect. If on questioning they are defined as a TB suspect (as per national protocols) treatment of latent TB infection should not be given and they should be investigated for TB (or referred to TB service for investigation) and treated appropriately.

**Platform:** Modified HIV testing and counselling register or HIV treatment and care register.

**Frequency:** Data would be collected continuously and reported and analysed quarterly.

#### REFERENCES

- World Health Organization (2004). Guide to monitoring and evaluation for collaborative TB/HIV activities (WHO/HTM/TB/2004.3^42)
- Interim Policy on Collaborative TB/HIV Activities. WHO/HTM/HIV/2004.1 and WHO/HTM/TB/2004.330

## TREATMENT INDICATOR (TB/HIV-TI) 2:

### HIV/TB Counselling and testing for TB patients

Number of registered TB patients who are tested for HIV, after giving consent, as a proportion of the total number of registered TB cases

#### RATIONALE

To assess the uptake of HIV testing by TB patients.

#### DEFINITION OF INDICATOR

*Numerator:* Total number of TB patients, registered over a given time period, who are tested for HIV (after giving consent) during their TB treatment.

*Denominator:* Total number of TB patients, registered over the same given time period.

#### MEASUREMENT

Ideally all TB patients should be offered an HIV test and it is preferable that this occurs within the context of the TB service provider, in which case the HIV test can be recorded in the patient record and a modified TB register and reported quarterly with the outcome data. However in some settings HIV counselling and testing will be carried out in a different part of the same facility or even at a distant site. Under these circumstances, a referral system will need to be established such that the TB programme records when a TB patient is referred for an HIV test, and is notified when a TB patient attends for counselling and whether or not they are tested for HIV. Such information should be collected at the TB facility level and recorded in the facility or district TB register. Patient confidentiality must be maintained. It is preferable that TB patients are tested at the start of TB treatment so that they can benefit from appropriate care throughout their TB treatment. However, some patients are reluctant to undertake an HIV test until later in their TB treatment, once they feel stronger. A recording and reporting system should be able to capture these late tests otherwise the total number of TB patients knowing their HIV status will be underreported. Although this indicator is similar to HIV/TB-PI1 which measure HIV prevalence through surveillance, this indicator measures the services' ability to encourage HIV testing in TB patients under programme conditions. If a high proportion of TB patients are tested (>80%) then this provides a sufficiently robust estimate of the true HIV prevalence among TB patients that can be used for surveillance purposes.

**Platform:** Modified TB register, separate TB/HIV register or modified HIV counselling and testing register with quarterly analysis and reports. A referral mechanism and reporting of results between TB and HIV testing and counselling services will be needed if HIV testing is performed at a separate site to the TB clinic.

**Frequency:** Data recorded continuously and reported and analysed quarterly at the time of reporting outcome of TB treatment. Reporting at the end of TB treatment allows for HIV testing occurring and results being recorded at any time during TB treatment.

**Target:** All TB patients should be offered an HIV test and ideally a high proportion (>80%) should actually have an HIV test.

**Target:** All TB patients who are tested for HIV should receive their results through post test counseling.

#### REFERENCES

- World Health Organization (2004). Guide to monitoring and evaluation for collaborative TB/HIV activities (WHO/HTM/TB/2004.342)
- "Interim Policy on Collaborative TB/HIV Activities. WHO/HTM/HIV/2004.1 and WHO/HTM/TB/2004.330

## TREATMENT INDICATOR (TB/HIV-TI) 3:

### HIV/TB Provision of CDT to TB patients

Number of HIV positive TB patients who receive (given at least one dose) CPT during their TB treatment as a proportion of the total number of HIV positive TB patients.

#### RATIONALE

To monitor commitment and capacity of programmes to provide CPT to HIV positive TB patients. It is important for programmes to know the proportion of HIV positive TB patients that receive this potentially life-saving therapy.

#### DEFINITION OF INDICATOR

*Numerator:* Number of HIV positive TB patients, registered over a given time period, who receive (given at least one dose) CPT during their TB treatment

*Denominator:* Total number of HIV positive TB patients registered over the same given time period

#### MEASUREMENT

All HIV positive TB patients should be given CPT during their TB treatment and lifelong thereafter<sup>4</sup> unless contraindicated or they receive ART and their CD4 cell count rises above 500/mm<sub>3</sub>. TB patients may have been identified as HIV positive and commenced on CPT prior to being diagnosed with TB; they should continue CPT throughout TB treatment and be included in the denominator. To gain maximum benefit TB patients should commence CPT as soon as possible after HIV infection is diagnosed in a TB patient, as mortality is highest early in the course of TB treatment. However, TB patients may not have access to HIV testing immediately after diagnosis of TB or may not wish to be tested until later in their TB treatment. To be able to include all HIV positive TB patients who start CPT during TB treatment it will be necessary to assess and report this at the end of TB treatment. This can be achieved using a modified TB register or separate TB/HIV register in which to record HIV status and CPT. This data can then be reported along with the quarterly cohort outcome data. The use in the definition of the clarifying statement – given at least one dose – is to capture all patients who have been assessed and started on treatment, it does not imply that one dose of CPT is sufficient. If CPT is not provided by the TB programme but through HIV care or other services, a mechanism should be established to ensure that information about commencing CPT is passed on to and recorded by the NTP, again in a modified TB register or separate TB/HIV register.

**Platform:** Modified TB register, a separate TB/HIV register, or a system to transfer data to TB programme if CPT provided outside the TB service.

**Frequency:** The data should be collected continuously and reported and analysed quarterly at the end of TB treatment along with the outcome of TB treatment.

#### REFERENCES

- Provisional WHO/UNAIDS Secretariat recommendations on the use of cotrimoxazole prophylaxis in adults and children living with HIV/AIDS in Africa ([www.unaids.org/publications/documents/care/general/recommendations-eng.pdf](http://www.unaids.org/publications/documents/care/general/recommendations-eng.pdf))
- World Health Organization (2004). Guide to monitoring and evaluation for collaborative TB/HIV activities (WHO/HTM/TB/2004.342)
- “Interim Policy on Collaborative TB/HIV Activities. WHO/HTM/HIV/2004.1 and WHO/HTM/TB/2004.330

<sup>4</sup> Provisional WHO/UNAIDS secretariat recommendations on the use of co-trimoxazole prophylaxis in adults and children living with HIV/AIDS in Africa. Geneva, Joint United Nations Programme on HIV/AIDS and WHO. [http://www.unaids.org/en/other/functionalities/ViewDocument.aspx?href=http://gva-doc-owl/WEBcontent/Documents/pub/Publications/IRC-pub04/recommendation\\_en%26%2346.pdf](http://www.unaids.org/en/other/functionalities/ViewDocument.aspx?href=http://gva-doc-owl/WEBcontent/Documents/pub/Publications/IRC-pub04/recommendation_en%26%2346.pdf) (accessed 24/05/04).

## TREATMENT INDICATOR (TB/HIV-TI) 4:

### HIV/TB Provision of ART for TB patients

Number of HIV positive registered TB patients who receive (are started on or continue previously initiated ART), during or at the end of TB treatment, as a proportion of all HIV positive registered TB patients

#### RATIONALE

Outcome indicator to measure commitment and capacity of TB service to ensure that HIV positive TB patients are able to access ART.

#### DEFINITION OF INDICATOR

*Numerator:* All HIV positive TB patients, registered over a given time period, who receive ART (are started on or continue previously initiated ART)

*Denominator:* All HIV positive TB patients registered over the same given time period

#### MEASUREMENT

Data collection methods will depend on who provides ART for TB patients. In settings where TB patients are assessed for eligibility and commenced on ART by TB programme staff, data for this indicator can be captured in a modified TB register or separate TB/HIV register. The data should be reported at the completion of TB treatment in order to include all TB patients started on ART at any time over the course of their TB treatment. In settings where TB patients are referred to HIV or other care services to be assessed and commenced on ART, a system must be established to ensure that the TB programme is informed of the outcome of the referral i.e. whether or not TB patients are commenced on ART or not, and that this information is recorded in a modified TB register or TB/HIV register. Not only is this important for programme management it is also important for individual patient care. TB staff members need to be aware if a TB patient is commenced on ART so that they can manage drug reactions and interactions appropriately. TB patients may be commenced on ART at any time during their TB treatment. Commencement of ART may be delayed due to delay in HIV testing or to reduce the risk of drug interactions occurring in the intensive phase. The data collection methods should be able to capture ART treatment starting at any time during TB treatment.

**Platform:** Modified TB register, modified HIV care register or separate TB/HIV register with referral system (where appropriate).

**Frequency:** The data would be collected continuously and reported with the quarterly cohort outcome data.

#### REFERENCES

- World Health Organization (2004). Guide to monitoring and evaluation for collaborative TB/HIV activities (WHO/HTM/TB/2004.342)
- "Interim Policy on Collaborative TB/HIV Activities. WHO/HTM/HIV/2004.1 and WHO/HTM/TB/2004.330



**ANNEX D:**  
**Description of Malaria Indicators**

**Note:** The indicators presented in this annex are a selection from a larger, more comprehensive list of available indicators in each disease area. Readers are encouraged to refer to the full list of indicator resources listed under “Guidelines” for each HIV/AIDS, TB, and malaria in order to obtain a comprehensive overview of ALL core and additional indicators available for their use.

## PREVENTION INDICATOR (Malaria-PI) 1:

### INSECTICIDE TREATED NETS (ITNs) Households owning ITNs

Proportion of households with at least one insecticide-treated net.

#### RATIONALE

ITNs have been shown to be associated with reductions in all-cause child mortality, malaria-related morbidity, and low birth weight, within malaria endemic areas of sub-Saharan Africa. There is also some evidence of a 'community effect' where promptly treated ITNs are associated with reductions in all-cause child mortality and malaria-related morbidity among unprotected children within close proximity to households with ITNs. In addition, there is evidence of a correlation between ownership and usage of nets. This indicator captures household ITN possession among the general population at the national level.

#### DEFINITION OF INDICATOR

*Numerator:* Number of households surveyed with at least one mosquito net, which has been treated with approved insecticide within the last 6 months

*Denominator:* Total number of households surveyed

*Note:* Analysis and reporting by province and according to urban/rural setting is recommended

#### MEASUREMENT

This indicator requires data collected at the household level from nationally-representative sample surveys. The limited number of questions required to ascertain the data for this indicator can be easily added to any nationally-representative sample survey of households. It is important that these data be collected on a household questionnaire, rather than from an individual, as individuals may not be representative of household possession. It is also important that surveys be conducted with sufficient design and sample size to allow comparisons between provinces and urban/rural strata at the household level.

The numerator for this indicator is obtained from asking household respondent if there is any mosquito net in the house that can be used to avoid being bitten while sleeping, and whether it has been treated in the last 6 months. The denominator is simply measured by the total number of surveyed households.

*Suggested questions:* 1.1, 1.3 and 1.4 from malaria add on household questions in Guidelines for core indicators for assessing malaria intervention coverage from household surveys.

**Platform:** DHS (USAID/MACRO), MICS (UNICEF), MIS, 'Rider' on other nationally representative surveys

**Frequency:** every 2-3 years

#### REFERENCES

- Roll Back Malaria/MEASURE. Guidelines for core indicators for assessing malaria intervention coverage from household surveys. 2004. (*In preparation*).
- Roll Back Malaria. Malaria Indicator Survey (MIS). (*In preparation*)
- UNICEF MICS: <http://www.unicef.org/reseval/micsr.html>
- MEASURE Demographic and Health Surveys: <http://www.measuredhs.com/>

## PREVENTION INDICATOR (Malaria-PI) 2:

### INSECTICIDE TREATED NETS (ITNs) Children under five using ITNs

Proportion of children <5 years old who slept under an ITN the previous night.

#### RATIONALE

The use of ITNs within areas of intense transmission are of particular importance as their effect on reducing all-cause mortality and malaria-related morbidity is concentrated among young children. For these reasons coverage of children with ITNs is a key component of the technical strategy for transmission prevention and vector control advocated by RBM. This indicator captures the level of ITN use by children <5 years of age at the national-level.

#### DEFINITION OF INDICATOR

*Numerator:* Number of children under five years old who slept under a mosquito net the previous night, which has been treated with approved insecticide within the last 6 months

*Denominator:* Total number of children under five years old who slept in surveyed households the previous night

*Note:* Analysis and reporting by province and according to urban/rural setting is recommended

#### MEASUREMENT

This indicator requires data collected from nationally-representative household sample surveys. The limited number of questions required to ascertain the data for this indicator can be easily added to any nationally-representative sample survey. However, it is important that the survey contain a household listing that captures all children under five years old within each surveyed household. Such surveys should be conducted with sufficient design and sample size to allow comparisons between provinces and urban/rural strata at the individual level.

- The data for the denominator is obtained during the household listing procedure when every child under five who slept in the house the previous night is identified. The data for the numerator is then obtained from a listing of children in the house who slept under a mosquito net the previous night, in combination with information on whether the net had been treated with insecticide within the last 6 months

*Suggested questions:* 1.1 and 1.3-1.6 from malaria add on household questions in Guidelines for core indicators for assessing malaria intervention coverage from household surveys

**Platform:** DHS (USAID/MACRO), MICS (UNICEF), MIS, 'Rider' on other nationally representative surveys

**Frequency:** every 2-3 years

#### REFERENCES

- Roll Back Malaria/MEASURE. Guidelines for core indicators for assessing malaria intervention coverage from household surveys. 2004. (*In preparation*).
- Roll Back Malaria. Malaria Indicator Survey (MIS). (*In preparation*).
- UNICEF MICS: <http://www.unicef.org/reseval/micsr.html>
- MEASURE Demographic and Health Surveys: <http://www.measuredhs.com/>

## PREVENTION INDICATOR (Malaria-PI) 3:

### MALARIA IN PREGNANCY Pregnant women using ITNs

Proportion of pregnant women who slept under an ITN the previous night.

#### RATIONALE

ITN use by pregnant women has been shown to be associated with reductions in malaria-related maternal morbidity, as well as improved birth outcomes, including the reduction of low birth weight babies. For these reasons coverage of pregnant women with ITNs is a key component of the technical strategy for control and prevention of malaria in pregnancy advocated by RBM. This indicator captures the level of ITN use by pregnant women at the national-level.

#### DEFINITION OF INDICATOR

*Numerator:* Number of pregnant women who slept under a mosquito net the previous night, which has been treated with approved insecticide within the last 6 months

*Denominator:* Total number of pregnant women who reside within surveyed households

*Note:* Analysis and reporting by province and according to urban/rural setting is recommended

#### MEASUREMENT

This indicator requires data collected from nationally-representative household sample surveys. The limited number of questions required to ascertain the data for this indicator can be easily added to any nationally-representative sample survey. However, due to small number of currently pregnant women at any given time, a survey designed to collect these data should have an overall sample of  $\geq 5000$  women (in order to be comparable with MICS and DHS). If questions are to be added on as a 'rider' to a survey, it is important that the survey contain a household listing that captures all women of reproductive age within each surveyed household. Such surveys should be conducted with sufficient design and sample size to allow comparisons between provinces and urban/rural strata at the individual level.

The data for the denominator is obtained from a series of questions asked of all women of reproductive age in the household about their current pregnancy status. The data for the numerator is then obtained from a listing of these women that slept under a mosquito net the previous night, in combination with information on whether the net had been treated with insecticide within the last 6 months.

*Suggested questions:* 1.1, 1.3-1.6, and 2.1 from malaria add on household questions in Guidelines for core indicators for assessing malaria intervention coverage from household surveys

**Platform:** DHS (USAID/MACRO), MICS (UNICEF), MIS, 'Rider' on other nationally representative surveys

**Frequency:** every 2-3 years

#### REFERENCES

- Roll Back Malaria/MEASURE. Guidelines for core indicators for assessing malaria intervention coverage from household surveys. 2004. (*In preparation*).
- Roll Back Malaria. Malaria Indicator Survey (MIS). (*In preparation*).
- UNICEF MICS: <http://www.unicef.org/reseval/micsr.html>
- MEASURE Demographic and Health Surveys: <http://www.measuredhs.com/>

## PREVENTION INDICATOR (Malaria-PI) 4:

### MALARIA IN PREGNANCY Pregnant women receiving Intermittent Preventive Therapy (IPT)

Proportion of pregnant women who receive IPT as prophylaxis for malaria.

#### RATIONALE

IPT of sulphadoxine-pyrimethamine (SP) given to pregnant women has been shown to reduce the risk of maternal anemia, placental parasitemia, and low birth-weight. IPT in pregnancy is therefore a key component of the technical strategy for control and prevention of malaria in pregnancy advocated by RBM. This indicator captures the national-level use of IPT to prevent malaria among pregnant women.

#### DEFINITION OF INDICATOR

*Numerator:* Number of women who took an antimalarial drug treatment to prevent malaria during their last pregnancy that led to a live birth within the last 2 years

*Denominator:* Total number of women surveyed who delivered a live baby within the last 2 years

*Note:* Analysis and reporting by province and according to urban/rural setting is recommended

#### MEASUREMENT

This indicator requires data collected from nationally-representative household sample surveys. The limited number of questions required to ascertain the data for this indicator can be easily added to any nationally-representative sample survey. If questions are to be added on as a 'rider' to a survey, it is important that the survey contain a household listing that captures all women of reproductive age within each surveyed household as well as a female questionnaire to collect data on previous births and antenatal care. Additionally, due to the limited number of women who delivered a live baby within the previous 2 years, care should be taken to ensure such surveys are conducted with sufficient sample size and design to allow comparisons between provinces and urban/rural strata at the individual level.

Data from the female questionnaires for all women who delivered a live baby within the last 2 years within surveyed household is used to calculate the denominator. The numerator is derived from the number of women who mention taking an antimalarial for prevention (NOT treatment) during pregnancy from among all women who have given birth in the last 2 years.

It is important to differentiate between a treatment dose for prevention (as prescribed for IPT) and actual treatment of an existing malaria infection. Although it is extremely difficult to differentiate in the context of a survey interview, the latter is curative care, and does not count as standard IPT procedure. Similarly, women taking weekly chloroquine prophylaxis are not considered to be covered by IPT.

Suggested questions: 2.2-2.7 from malaria add on household questions in Guidelines for core indicators for assessing malaria intervention coverage from household surveys

**Platform:** DHS (USAID/MACRO), MICS (UNICEF), MIS, 'Rider' on other nationally representative surveys

**Frequency:** every 2-3 years

#### REFERENCES

- Roll Back Malaria/MEASURE. Guidelines for core indicators for assessing malaria intervention coverage from household surveys. 2004. (In preparation).
- Roll Back Malaria. Malaria Indicator Survey (MIS). (In preparation).
- UNICEF MICS: <http://www.unicef.org/reseval/micsr.html>
- MEASURE Demographic and Health Surveys: <http://www.measuredhs.com/>

## PREVENTION INDICATOR (Malaria-PI) 5:

### PREDICTION AND CONTAINMENT OF EPIDEMICS Malaria epidemics detected and properly controlled

Proportion of epidemics detected within 2 weeks of onset and properly controlled.

#### RATIONALE

With an increasing occurrence of epidemics in both low-risk areas and areas of moderate transmission of malaria, the institution of special responses to epidemics on top of the regular malaria control activities is imperative. The impact of epidemics can be greatly reduced if they are timely detected or, even better, predicted, and prevention started. This indicator captures the national response to epidemics.

#### DEFINITION OF INDICATOR

*Numerator:* Number of epidemics detected in a specific geographical area (country, district) within two weeks during the last 12 months and for which appropriate control measures\* have been initiated

*Denominator:* Number of malaria epidemics recorded during the last 12 months within a specific geographical area

\* Action based on preparedness plan of action, according to global WHO guidelines, where applicable

#### MEASUREMENT

The Management survey forms are designed for collating general policy and implementation guidelines with emphasis on management issues. They should be administered to the National Programme Officers and District Health Managers. There are several scenarios that can be adopted to facilitate easy collection of the information. The survey forms must not be sent out as questionnaires. The interview teams are expected to ask additional questions, clarifying issues during the interview.

**Platform:** Management Survey

**Frequency:** 2-3 years

#### REFERENCES

- Hook C. Field Guide for Malaria Epidemic Assessment and Reporting. DRAFT for Field Testing. World Health Organization. 2003, Available online: [http://rbm.who.int/cmc\\_upload/0/000/016/569/FTest.pdf](http://rbm.who.int/cmc_upload/0/000/016/569/FTest.pdf)
- Roll Back Malaria. Framework for Monitoring Progress and Evaluating Outcomes and Impact. 2000. Geneva. [http://rbm.who.int/cmc\\_upload/0/000/012/168/m\\_e\\_en.pdf](http://rbm.who.int/cmc_upload/0/000/012/168/m_e_en.pdf)
- WHO. Roll Back Malaria Initiative in the African Region. Monitoring and Evaluation Guidelines. Harare, WHO Regional Office, 2000.

## TREATMENT INDICATOR (Malaria-TI) 1:

### PROMPT EFFECTIVE TREATMENT Children under five years of age with access to prompt, effective treatment

Proportion children under five with fever in last 2 weeks who received antimalarial treatment according to national policy within 24 hours from onset of fever.

#### RATIONALE

The majority of deaths from severe malaria in childhood are caused by the delayed administration of effective anti-malarial treatment. Prompt access to effective malaria treatment among children is therefore a key component of the technical strategy for control and prevention of malaria in pregnancy advocated by RBM. This indicator captures the national-level access to prompt and effective treatment for malaria.

#### DEFINITION OF INDICATOR

*Numerator:* Number of children <5 years old who had a fever in previous 2 weeks who received antimalarial treatment according to national policy <24 hours from onset of fever.

*Denominator:* Total number of children <5 years old who had a fever in previous 2 weeks

*Note:* Analysis and reporting by province and according to urban/rural setting is recommended

#### MEASUREMENT

In order to collect data on this indicator, the survey must be nationally representative and collect data on children <5 years old. The child-level data are obtained during the household listing procedure when every child <5 who slept in the house the previous night is identified. Questions are asked about whether the child has had a fever in the past two weeks, and if and where s/he was given antimalarial treatment. At a minimum, the following data will also need to be collected to assist with interpretation and control for potential confounding:

- Age of listed children in years
- Confirmation of type of malaria retreatment given to child
- Socioeconomic variables at the household and community levels routinely collected by DHS and MICS

**Platform:** DHS (USAID/MACRO), MICS (UNICEF), MIS, 'Rider' on other nationally representative surveys

**Frequency:** 2-3 years

#### REFERENCES

- Roll Back Malaria/MEASURE. Guidelines for core indicators for assessing malaria intervention coverage from household surveys. 2004. (In preparation).
- Roll Back Malaria. Malaria Indicator Survey (MIS). (In preparation).
- UNICEF MICS: <http://www.unicef.org/reseval/micsr.html>
- MEASURE Demographic and Health Surveys: <http://www.measuredhs.com>

## TREATMENT INDICATOR (Malaria-TI) 2:

### PROMPT EFFECTIVE TREATMENT Health facilities with no reported stock outs of antimalarial drugs

Percentage of health facilities with no stock outs of nationally recommended antimalarial drugs continuously for one week during the last 3 months

#### RATIONALE

The continuous supply of antimalarial drugs is key to prompt effective treatment at health facilities. This indicator captures the availability of nationally recommended antimalarial drugs in health facilities.

#### DEFINITION OF INDICATOR

*Numerator:* Number of health facilities with nationally recommended antimalarial drugs on the day of survey and with no stock outs in the last 3 months

*Denominator:* Total number of Health facilities surveyed

*Note:* Analysis and reporting by province and according to urban/rural setting is recommended

#### MEASUREMENT

The health facility survey forms are administered to the head of each section of the health facilities identified for the survey. They are expected to include the District hospital, and at least two other Health centres/posts serving selected communities in the district. Examination of in-patient records and an assessment of the appropriateness of treatment of severe malaria cases admitted to the District Hospital as well as observation of health care providers providing services to clients should be part of data collection.

**Platform:** Health Facility Survey

**Frequency:** yearly

#### REFERENCES

- Roll Back Malaria. Framework for Monitoring Progress and Evaluating Outcomes and Impact. 2000. Geneva. [http://rbm.who.int/cmc\\_upload/0/000/012/168/m\\_e\\_en.pdf](http://rbm.who.int/cmc_upload/0/000/012/168/m_e_en.pdf)
- WHO. Roll Back Malaria Initiative in the African Region. Monitoring and Evaluation Guidelines. Harare, WHO Regional Office, 2000.

## TREATMENT INDICATOR (Malaria-TI) 3:

### PROMPT EFFECTIVE TREATMENT Patients with severe malaria receiving correct treatment

Percentage of children under five admitted with severe malaria and correctly treated at health facilities.

#### RATIONALE

Severe malaria usually occurs as a result of a delay in treating uncomplicated malaria. Sometimes, especially in children, severe malaria may develop very rapidly. Because of the often fatal outcome, the correct management is key to saving lives. This indicator captures the ability of health facilities to correctly manage severe malaria.

#### DEFINITION OF INDICATOR

*Numerator:* Number of children under five and other target groups admitted with severe malaria and correctly given antimalarials and supportive treatment according to national policy

*Denominator:* Total number of children under five and other target groups admitted with severe malaria surveyed at health facilities

#### MEASUREMENT

The health facility survey forms are administered to the head of each section of the health facilities identified for the survey. They are expected to include the District hospital, and at least two other Health centres/posts serving selected communities in the district. Examination of in-patient records and an assessment of the appropriateness of treatment of severe malaria cases admitted to the District Hospital as well as observation of health care providers providing services to clients should be part of data collection.

**Platform:** 1) Part of routine supervision of NMCP; 2) Health facility survey (Form 7)

**Frequency:** 1) yearly; 2) every 2-3 years

#### REFERENCES

- Roll Back Malaria. *Framework for Monitoring Progress and Evaluating Outcomes and Impact*. 2000. Geneva. [http://rbm.who.int/cmc\\_upload/0/000/012/168/m\\_e\\_en.pdf](http://rbm.who.int/cmc_upload/0/000/012/168/m_e_en.pdf)
- WHO. Roll Back Malaria Initiative in the African Region. Monitoring and Evaluation Guidelines. Harare, WHO Regional Office, 2000.