NATIONAL AIDS PROGRAMME MANAGEMENT

MODULE 1
SITUATION ANALYSIS

World Health Organization
Regional Office for South-East Asia

National AIDS Programme Management

A Training Course

Module 1

Situation analysis

World Health Organization
Regional Office for South-East Asia

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Module 1: Situation analysis

Module 1

Situation analysis

LEARNING OBJECTIVES

After completing this module, participants will be able:

1. To describe the epidemiological features of HIV epidemics in Asia.
2. To summarize how to monitor prevalence and trends, analyse geographic patterns and estimate population sizes.
3. To describe the use of second-generation surveillance in guiding the response to HIV.
4. To review and summarize available data and information on HIV risk and vulnerability at the national/subnational level.

INTRODUCTION

The two overriding goals of national AIDS programmes are to reduce the transmission of HIV and to care for and mitigate the impact of HIV on those already infected. Achieving these goals requires an understanding of the extent of prevalence of HIV infection and also where it is spreading.

For example, to interrupt transmission, effective interventions must reach those geographic areas and populations where HIV is spreading most rapidly. Similarly, organizing services for HIV care, support and treatment requires an understanding of where people living with HIV/AIDS (PLHA) can be found. There may be considerable overlap in initiatives for prevention, care and treatment of HIV in terms of geographic and population focus. There may also be important differences because of the long lag time between HIV infection and AIDS.

AIDS programme managers are expected to utilize a great deal of information from a gamut of sources including:

- data from biological and behavioural surveillance;
- information from voluntary counselling and testing (VCT) centres, laboratories and other testing centres;

- data and information from sexually transmitted infection (STI) clinics;
- case reporting data from the health services;
- patient tracking data from care, support and treatment services;
- situation assessments, mapping studies and rapid assessments among target populations;
- population size estimation studies;
- social, cultural and behavioural research; and
- operational research.

Sometimes the challenge of tracking multiple sources of data – and analysing and applying such information to improve programmes – may seem daunting. Also, as AIDS programmes become more complex, it is increasingly challenging for programme managers to keep abreast of the many technical advances in HIV strategic information. Most national programmes now have technical advisory committees to oversee HIV and STI surveillance and research. The programme manager's role here is to oversee the technical advisory committee, manage the overall programme of strategic information, and apply analysed findings appropriately to improve the programmes.

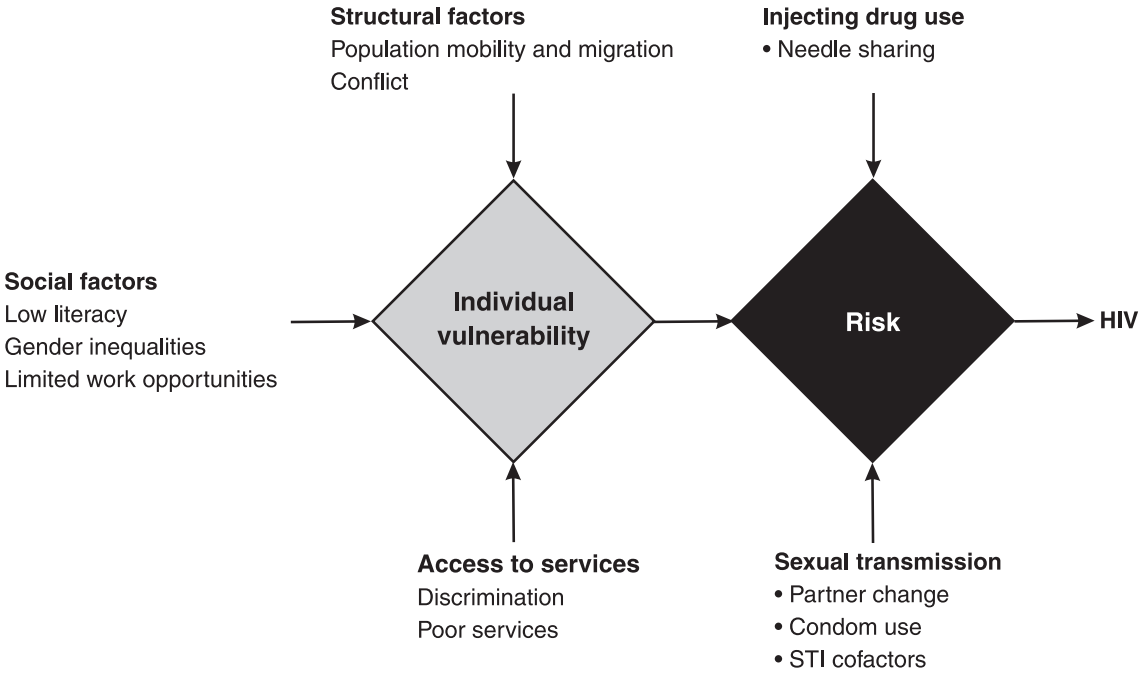
To do this, programme managers need to be familiar with the basic elements of surveillance, monitoring, evaluation and research that comprise the strategic information corpus. This module starts with a focus on key information relevant to the two main objectives of AIDS programmes. Later modules will look at targets and indicators (Module 6), systems for programme management (Modules 7 and 8) and an overall framework for strategic information (Module 9).

OBJECTIVE 1: To describe the epidemiological features of HIV epidemics in Asia

EXERCISE A

(Individual work followed by individual feedback)

Study the figure below, which summarizes some key factors of vulnerability and risk that contribute to HIV transmission.



These conditions of vulnerability and risk are not distributed equally across populations. To maximize the effectiveness of programmes, managers need to make strategic decisions about whom to target, what approaches to take, what services to provide in which settings, what resources are required, and how these should be distributed.

In many countries, for example, HIV epidemics are first reported in large cities, border towns or other locations where the elements of vulnerability and risk are very high. High population mobility tends to increase this vulnerability and also facilitates dissemination of HIV to new areas. Programme managers need to understand these geographic patterns to appropriately allocate prevention resources to areas where they will have the maximum impact on transmission.

Not everyone, however, is at equal risk even in areas of high HIV prevalence.

Answer the following questions:

1. In which areas of risk and vulnerability can the programme that you manage most effectively intervene to reduce HIV transmission?

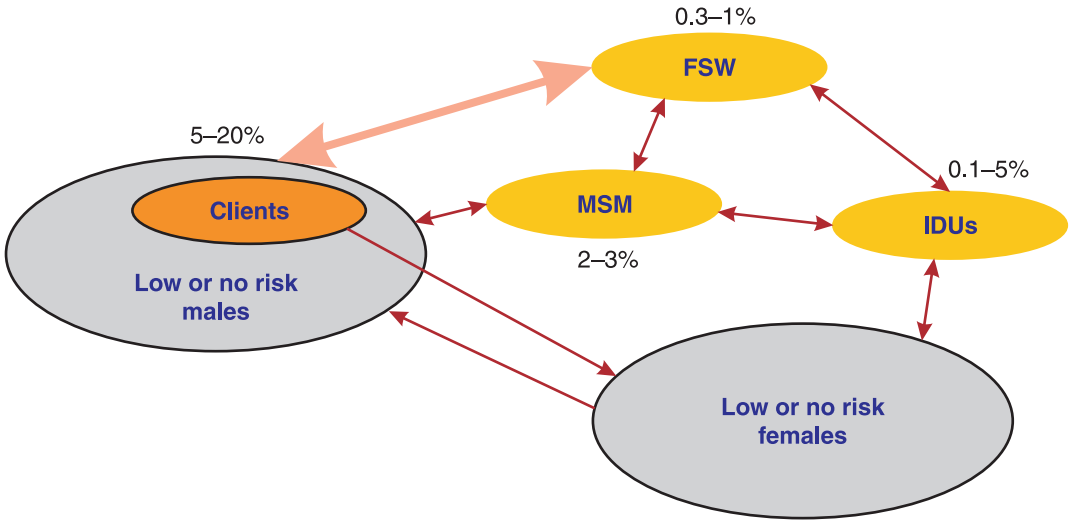
2. In which areas of vulnerability and risk can the programme that you manage work with other partners or sectors to improve conditions?

Inform your facilitator when you have finished the exercise.

EXERCISE B

(Individual work followed by country group discussion)

Study the figure on page 9 and discuss the questions that follow. In the figure, arrows represent potential HIV/STI transmission between high-risk groups – female sex workers (FSW), men who have sex with men (MSM) and injecting drug users (IDUs) – and bridging populations (male clients). Typical population size estimates for the Region are: FSW (0.3–1%), IDUs (0.1–5%), MSM (2–3%) and male clients (5–20%).



Source: A² —Analysis and Advocacy for Action (Thai Red Cross, East West Center)

Consider the information given above and answer the following questions:

1. It has been said that HIV epidemics in Asia frequently start with injecting drug use and then spread further into communities through sex work. Do you agree? Explain how HIV can spread between population groups as suggested in the figure above and how this is related to your country.

2. Do the estimated population sizes and network connections presented in the above diagram accurately describe the situation in your country? Where would you look for the information to answer this question?

Inform your facilitator when you are ready for country group discussions.

Next, we will look more closely at how to identify and interpret information that addresses such questions. It is important to understand not only who is getting infected but also why, and to know whether patterns of risk and vulnerability are changing over time. It is also important to comprehend the barriers that may prevent PLHA from accessing services and support, the changing patterns of use of these services and the outcomes at the individual and community level – of care, support and treatment. Managers also need to know whether or not their interventions are making any difference. Some of these information needs will be addressed in subsequent modules.

OBJECTIVE 2: To summarize how to monitor prevalence and trends, analyse geographic patterns and estimate population sizes

Programme managers clearly need some basic information to guide an effective response; but with dozens of indicators and multiple sources of data, it is essential to know which ones are the most important.

It is obviously necessary to monitor HIV infection itself and most countries have some systems in place to report cases (case reporting) and estimate prevalence (HIV surveillance). This alone would not be enough to guide programmes since HIV sentinel surveillance and case reporting only count people who are already infected. Surveillance should also help in identifying areas where people are at risk for HIV, preferably before HIV starts spreading.

This is where surveillance of risk behaviour and STI can be useful. Behavioural surveillance monitors key populations believed to be at risk because of behaviours that are known to facilitate transmission. STI surveillance provides an early warning system for potential HIV transmission as well as relatively short-term outcome data that can help evaluate the prevention response. By tracking rates and patterns of other STIs, programme managers can identify places and populations where HIV is most likely to spread, and where such programmes may need strengthening.

Three main areas thus form the basic building blocks for analysing HIV epidemics and planning an effective response. These are:

- HIV sentinel surveillance
- Behavioural surveillance
- STI surveillance

For Asian epidemics where transmission of HIV infection is largely linked to sex work, injecting drug use and sex between men, information on patterns and trends in these subpopulations is most important. Methods for collecting, analysing and using such information to improve programmes are described in guidelines and related materials on *second-generation surveillance*.

OBJECTIVE 3: To describe the use of second-generation surveillance in guiding the response to HIV

Second-generation surveillance permits programme managers to summarize the state of their epidemics in basic epidemiological terms of "person", "place" and "time".

- Affected populations such as sex workers, MSM, IDUs, men at high risk;
- Geographic distribution at subnational and local levels; and
- Trends over time to detect change.

HIV, STI, and related behaviours provide complementary information that helps programme managers determine where to focus resources.

The basic steps of data analysis include:

- Examining the data by site
- Examining the data by subpopulation
- Graphing the data to examine trends
- Mapping the data to analyse geographic patterns

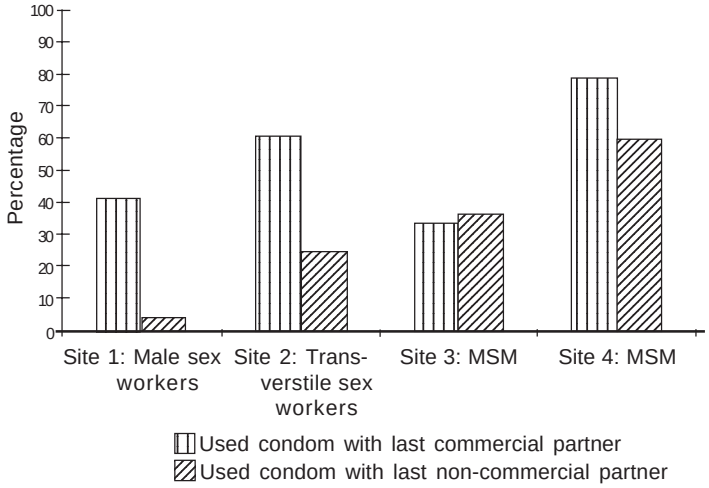
In the next exercise, you will practise using some real second-generation surveillance data from the Region to describe epidemics and discuss the implications for programmes.

EXERCISE C

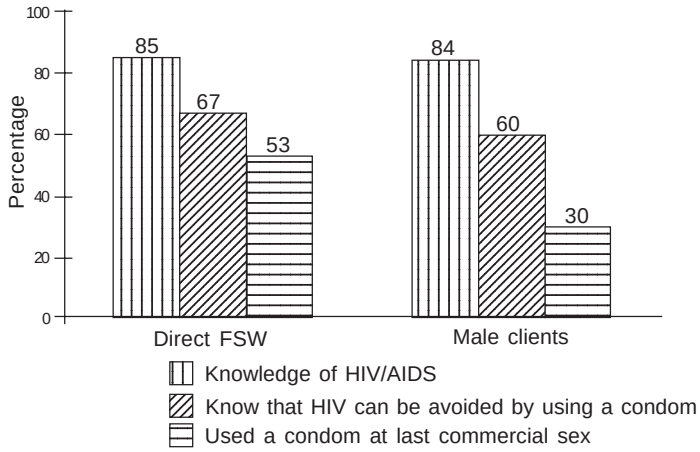
(Individual work followed by country group discussion)

Summarize the information presented in the graphs on pages 13–14 and discuss their implications for HIV programmes.

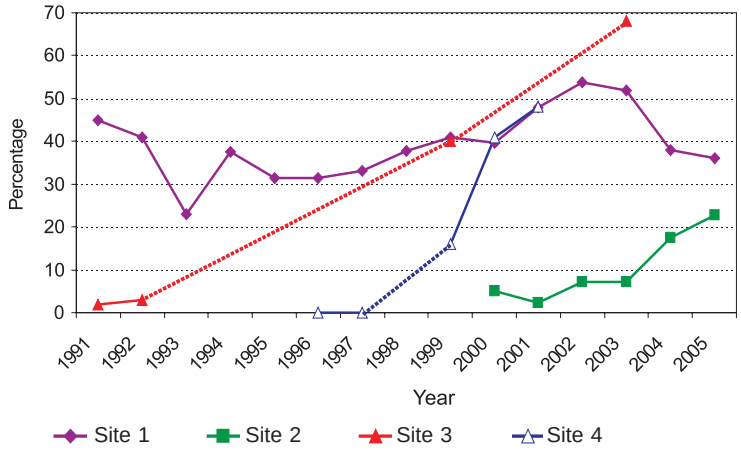
(1) **Proportion of men using condoms in last sex with another man, by type of partner, 1999–2000**



(2) **Knowledge and practice about HIV prevention among sex workers and their male clients, 2003**

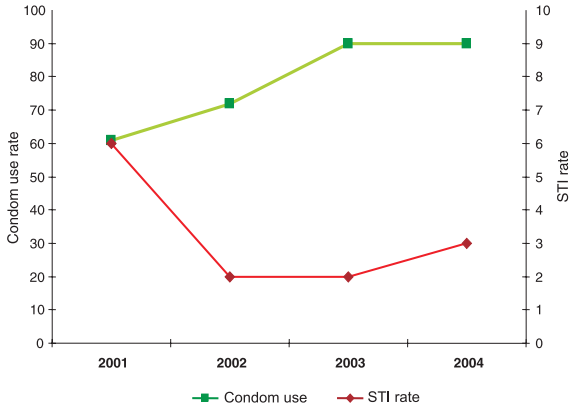


(3) **HIV prevalence among injecting drug users (IDUs), 1992–2005**



Source: National AIDS Programme, 2005

(4) Condom use and STI rates among sex workers



Inform your facilitator when you are ready for country group discussions.

Second-generation surveillance is also used to estimate the size of HIV epidemics. This information is important for purposes of advocacy and for planning interventions and service needs.

In most Asian epidemics where risk and vulnerability are highly concentrated among specific populations and their sexual partners, prevalence and population size figures from second-generation surveillance can be used to estimate the size of epidemics as follows:

Estimating HIV prevalence:

- Determine which subpopulations are potentially exposed to HIV.
- Estimate the size of each subpopulation.
- Examine surveillance data for the index subpopulations.
- Estimate HIV prevalence in exposed populations not included in the surveillance.
- Apply the HIV prevalence estimates to the population size estimates.
- Sum up all estimates to obtain a national HIV prevalence.

Source: *Guidelines for effective use of data from HIV surveillance systems,* WHO, UNAIDS, 2004

First, we need to estimate the sizes of different subpopulations affected by HIV. Several methods of estimation are described in Module 6.

It is important to remember that determining the patterns of HIV and STI and related behaviours in different populations is not a one-time exercise. The basic tasks described in this section should be repeated continually over time as epidemics evolve. The response to those epidemics is also a changing phenomenon.

EXERCISE D

(Country group work followed by intercountry group discussion)

In country groups, describe your country's current HIV surveillance system by completing the following table. Place a tick or cross in each box according to whether your surveillance system "currently provides data" on the areas described for the subpopulations indicated.

	HIV prevalence	STI prevalence	Risk behaviours	Population size
Sex workers				
IDUs				
MSM				
Men at high risk*				
General population				

* The choice of monitoring potentially high-risk male groups for surveillance purposes varies, but may include certain defined migrant workers, the military, police personnel, transport workers, etc.

Answer the following questions:

1. Which subpopulations are included in your country's surveillance system?

2. Which surveillance methods are used (singly and in combination)?

3. Where and when does the surveillance occur?

Inform your facilitator when you are ready for intercountry group discussions.

OBJECTIVE 4: To review and summarize available data and information on HIV risk and vulnerability at the national/subnational level

EXERCISE E

(Country group work followed by intercountry group discussion)

In country groups, review all the data and information available to you on HIV risk and vulnerability for your country.

1. Summarize what it tells you about the current state of the epidemic.

2. What are the "most important messages" that these data tell you?

3. What key information are you missing?

4. How would you obtain this missing information?

Inform your facilitator when you are ready for intercountry group discussions.

RESOURCES

1. *Guidelines for effective use of data from HIV surveillance systems*, WHO, UNAIDS, 2004 (http://www.who.int/hiv/strategic/surveillance/en/useofdata.pdf).

2. *UNAIDS/WHO AIDS epidemic update,* December 2006 (http://www.unaids.org/en/HIV_data/epi2006/default.asp).

3. *HIV surveillance modules*, New Delhi, WHO Regional Office for South-East Asia, 2007
   (i) Module 1: Overview of HIV/AIDS epidemic with an introduction to public health surveillance
   (ii) Module 2: HIV clinical staging and case reporting
   (iii) Module 3: HIV serosurveillance
   (iv) Module 4: Surveillance for sexually transmitted infections
   (v) Module 5: Surveillance of HIV risk behaviours
   (vi) Module 6: Surveillance of populations at high risk for HIV transmission
   (vii) Facilitator training guide for the surveillance curriculum.

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