



WORLD HEALTH ORGANIZATION
Regional Office for the Western Pacific

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HIV



Guidelines for HIV/AIDS, STI, and Behavioural Risk Factors Surveillance

Pacific Island Countries and Areas

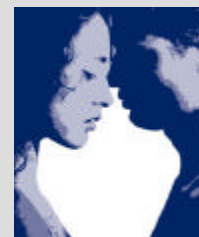
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Guidelines for HIV, STI, and Behavioural Risk Factors Surveillance

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INTRODUCTION



This manual is intended to serve as a guideline for Pacific island countries and areas for developing surveillance activities:

- to assess the magnitude and distribution of HIV and sexually transmitted infections (STI) in their communities
- to obtain information on behaviours which put persons at increased risk of acquiring these infections, and
- to monitor changes in HIV, STI, and risk behaviours over time

The goal of this manual is to provide a framework of surveillance strategies that are appropriate to Pacific island communities, and which will provide adequate information without expending more resources than are necessary.

This mix of surveillance methods is the product of a consultative meeting on communicable disease surveillance held in Nadi, Fiji, 22 – 26 November 1999, and reflects the consensus of the attendees. It is anticipated that the proposed surveillance will provide high quality data for planning and decision-making.

The use of these guidelines is predicated on the assumption that all Pacific island countries and areas have national HIV/AIDS policies in place which protect the privacy, health and well-being of all individuals involved in disease surveillance activities and provide adequate safeguards regarding confidential information. Before any surveillance activities are initiated, the national HIV/AIDS policies should be reviewed to ensure they satisfactorily address the following issues: availability of confidential voluntary testing; confidentiality of all medical information; provision of counseling and medical care for HIV infected persons; and use & dissemination of STI, HIV and behavioural risk information.

The surveillance methods described below provide useful information in three areas: a) HIV infection; b) other sexually transmitted infections; and c) sexual behavioural risks related to STI. The Guideline contains a separate section for each of these areas. In some cases the suggested surveillance activity provides information on only one area, while in others the surveillance method can serve more than one purpose.

In considering which targets and indicators are most appropriate for Pacific island countries and areas, established regional targets and indicators and the state of the HIV/AIDS epidemic in the region must be taken into consideration. With the exception of Papua New Guinea, all Pacific island countries/areas are presently classified as a low-level HIV/AIDS epidemic area characterized by the following: 1) HIV has never spread to significant levels in any sub-population; 2) infection is largely confined to individuals with higher risk behaviours (e.g. sex workers); and, 3) HIV prevalence has not consistently exceeded five percent in any defined sub-population. A surveillance strategy that is appropriate for low-level HIV epidemic states should therefore be suitable for most Pacific island countries/areas.

The approaches suggested here are not expected to apply to all countries, or to reflect the only possible choices for STI, HIV and Behavioural Risk surveillance. In addition, some countries in the Pacific already have monitoring systems in place, which yield data meeting the needs of the country. These guidelines, therefore, address separate areas of data collection for clinical case management, although this activity often occurs simultaneously with public health surveillance.

Although the recommendations here reflect the consensus of the meeting attendees, their agreement should not mean that every individual agreed to each specific detail. Moreover, it should also be noted that including a particular surveillance strategy in this document does not necessarily mean this strategy should be undertaken in every single country. For example, in countries with negligible numbers of sex workers, prisoners, or seafarers it may not be appropriate or useful to conduct surveillance activities, which target these sub-populations.

Finally, it is difficult to recommend an exact figure for a survey sample size without some prior knowledge of the population to be studied. Therefore, whenever possible epidemiological consultation should be sought to determine the most appropriate sample size for a given local condition. The estimated sample sizes cited within these guidelines should serve only as a general guide. Some countries, especially those with small numbers of a given sub-population, may wish to conduct surveys in collaboration with their Pacific Island neighbors so the data can be interpreted both at a national and a regional level.



Section 1:

GUIDELINES FOR HIV AND AIDS SURVEILLANCE



I. Overview and rationale

- **A national HIV/AIDS policy** should be in place including availability of confidential voluntary testing, assurance of confidentiality, provision of counseling and care for infected persons, training issues and dissemination & use of data as a prerequisite before an active surveillance and/or surveys are conducted.
- **HIV/AIDS case reporting** already exists in most countries in the Pacific, and needs to be strengthened.
- **Active surveillance** should be considered focusing on sub-populations identified to be at high risk or by behavioral surveillance.
- **Any other data source** can be used e.g. blood bank, ANC screening, etc. if available.
- **Alternative testing strategy** - screening test followed by two enzyme linked immunosorbent assays (ELISA or simple rapid tests) is faster, cheaper and exhibits the same parameters as the classical testing strategy (screening test followed by Western Blot assay). The alternative testing strategy can be carried out at the national level laboratories, avoiding thus the necessity to send the samples reactive in screening test abroad for the Western Blot test. Wherever possible the alternative testing strategy should be adopted, subject to local conditions.
- **Pooling of samples** might be considered when investigating large numbers of samples in low prevalence areas

II. Targets, Indicators and Populations for Surveillance

- **HIV/AIDS case reporting**
 - Number of HIV/AIDS cases by age, sex and mode of transmission
 - Number of AIDS death, and
 - Government will receive the data from existing reporting systems

- **Sentinel surveillance**

- High risk groups or groups to be targeted are sex workers, seafarers, and STI & TB patients
- Identification of other groups such as MSM and mobile populations should await results from behavioural surveillance activities.
- Prisoners could be surveyed by ad hoc survey.
- Method: unlinked anonymous testing is recommended. However, linked testing could be employed subject to local conditions.

Note: In all the sub-groups included in HIV sentinel surveillance activities, the preferred method of HIV testing for epidemiological purposes is unlinked anonymous. Voluntary confidential testing is also an option, but this method of sample selection may limit the usefulness of the data for surveillance purposes because individuals who decline testing may be substantially different from those who elect to be tested for HIV.

III. Proposed Surveillance Methods by Population

General Public

Reporting by Health Care Providers and Laboratories:

- **Methods:** case reporting of HIV infections and AIDS cases
- **Sample size:** all available case reports
- **Who will do it:** government and nongovernmental (i.e. private) health workers (doctors, nurses, medical assistants, midwives, and laboratories). Subject to applicable local legal considerations.
- **How to identify cases:** persons receiving care, death certificates
- **What information is reported:** counts by age, gender, and mode of transmission, if known
- **How often:** ongoing, continuous



Seafarers

- **Methods:** anonymous unlinked, using serum samples collected for routine health check-up
- **Sample size:** as many as possible, up to 500. For small sub-populations, it may be possible to include all members. Obtain epidemiological consultation for more precise estimates.
- **Who will do it:** MOH, with existing medical check-up system
- **How to identify participants:** employment agencies
- **What information is reported:** HIV test result by age group and gender, exposure risk if known and available
- **How often:** 1-3 years, based on expected increase in prevalence, and existing resources

Sex Workers

- **Methods:** anonymous unlinked recommended; could be linked subject to local conditions
- **Sample size:** as many as possible, up to 500. For small sub-populations, it may be possible to include all members. Obtain epidemiological consultation for more precise estimates.
- **Who will do it:** MOH, NGOs, peers
- **How to identify participants:** networks, social workers
- **What information is reported:** HIV test result by age group and gender, exposure risk if known and available
- **How often:** 1-5 years, according to the expected increase in prevalence, accessibility to the sub-population, and existing resources
- **Special considerations:** In some Pacific island countries/areas, behavioural research should be conducted first to identify any hidden groups of *occasional* "sex workers".

STI Patients

- **Methods:** anonymous unlinked, using serum samples collected for syphilis screening
- **Sample size:** as many as possible, up to 500. For small sub-populations, it may be possible to include all members. Obtain epidemiological consultation for more precise estimates.
- **Who will do it:** MOH, STI clinics
- **How to identify participants:** STI patients screened for syphilis
- **What information is reported:** HIV test result by age group and gender, exposure risk if known and available
- **How often:** 1-3 years, based on expected increase in prevalence, and existing resources



TB Patients

- **Methods:** anonymous unlinked using serum samples collected for CBC/other purposes
- **Sample size:** as many as possible, up to 500. For small sub-populations, it may be possible to include all members. Obtain epidemiological consultation for more precise estimates.
- **Who will do it:** MOH, hospitals
- **How to identify participants:** TB patients at health facilities
- **What information is reported:** HIV test result by age group and gender, exposure risk if known and available
- **How often:** 1-3 years, based on expected increase in prevalence, and existing resources

Prisoners (optional ad hoc surveys)

- **Methods:** anonymous unlinked
- **Sample size:** as many as possible, up to 500. For small sub-populations, it may be possible to include all members. Obtain epidemiological consultation for more precise estimates.
- **Who will do it:** MOH
- **How to identify participants:** inmates
- **How often:** ad hoc, or perhaps regularly, depending on the situation in each country/area
- **What information is reported:** HIV test result by age group and gender, exposure risk if known and available
- **Special considerations:** Because of their unique living environment, special efforts may be needed to ensure the privacy, rights, and safety of inmates participating in HIV testing.

Others

- Sub-populations potentially at risk of HIV infection should be identified through behavioural surveillance before embarking on biological surveillance. These might include MSM, IDU, military and police forces, public servants, overseas students, and highly mobile populations.
- Data on HIV test results from blood banks may also be useful to review if the testing is already being performed routinely.
- Some have suggested that a sample of women attending antenatal clinics might be tested once every five years in areas with low-level HIV epidemics.



GUIDELINES FOR STI SURVEILLANCE



I. Overview and rationale

- **Sexually transmitted infections (STI)** continue to be a major public health concern in all areas of the world including the Pacific. Severe life-threatening complications resulting from inappropriate, inadequate or untreated STI such as pelvic inflammatory disease (PID), infertility, ectopic pregnancy, urethral strictures and cervical cancers constitute a great health and socio-economic burden. The need to address STI in the Pacific has been made even more urgent since the advent of HIV/AIDS in the region approximately a decade ago. It has now been shown that presence of other STI, such as genital ulcers and discharges, can facilitate transmission of HIV infection. Surveillance is an essential component of public health efforts to control and prevent STI and the related morbidity.

Given the diverse nature of Pacific island countries and areas in terms of needs and resources, the proposed STI surveillance guidelines are intended to be practical and realistic. They represent a core set of activities that should be able to be readily implemented in any country in the Pacific region. At the same time, these guidelines encourage additional country-specific STI surveillance systems that are appropriate and sustainable.

- **The overall goal of STI surveillance** in the Pacific is to reduce STI morbidity. However, STI surveillance is also considered important for monitoring biological and behavioural factors, which place individuals and populations at increased risk of HIV infection.
- **The objectives of STI surveillance** activities:
 - a) Provision of high quality information for monitoring trends and patterns of STI which can provide the foundation for appropriate public health action
 - b) Assessment of effectiveness of STI programme activities in individual countries and in the Pacific region, and use of the information gathered for public health advocacy
- **Strengths exist** for enhancing STI surveillance in the region. Most Pacific Island countries and areas already have, to some extent, ongoing STI surveillance activities, such as case reporting. Therefore, there is no need to “reinvent the wheel” in developing a combination of surveillance activities that is appropriate and sustainable in the Pacific. Where feasible, existing surveillance activities should be strengthened and, when appropriate, expanded. To maximize the use of limited resources, STI surveillance activities fullest extent possible.

- **Substantial challenges** remain to implementing STI surveillance in the Pacific:
 - a. Allocation of resources for conducting surveillance activities must be balanced against competing demands for treatment, counseling, and support services.
 - b. The infrastructure, both in terms of staffing & materials, of public health agencies to ensure the timely analysis, interpretation, and dissemination of information needs to be enhanced.
 - c. Health workers and others involved in surveillance activities to understand and appreciate the usefulness of the disease surveillance data need to be educated.
 - d. The concerns regarding the confidentiality of medical information need to be adequately addressed.

II. Targets, Indicators and Populations for Surveillance

A. All locations:

- The prevalence of urethral discharge in the general male population
- The prevalence of chlamydia, gonorrhoea, and reactive syphilis serologies among pregnant women
- Prevalence of reactive syphilis serologies among blood donors

B. Locations that already routinely perform the requisite lab testing:

- Proportion of gonococcal infections resistant to commonly used antibiotics
- Laboratory reporting of confirmed cases of gonorrhoea and chlamydia



III. Proposed Surveillance Methods by Population

General Public

A. Reporting by health care providers:

- **Methods:** syndromic case reporting of all male urethral discharges
- **Sample size:** all available case reports; may use sentinel sites
- **Who will do it:** government and nongovernmental (including private) health workers (doctors, nurses, medical assistants, midwives, etc.)
- **How to identify cases:** males presenting for care
- **What information is reported:** total monthly counts by age group
- **How often:** ongoing, continuous

B. Reporting by laboratories:

- **Methods:** etiologic reporting of all confirmed cases of gonorrhea or chlamydia where testing is routinely being performed as part of clinical management
- **Sample size:** all available laboratory reports; may use sentinel laboratories
- **Who will do it:** government and nongovernmental (including private) clinical laboratories, subject to applicable local legal considerations
- **How to identify cases:** persons presenting for care
- **What information is reported:** total monthly counts by etiologic agent, age group, geographical location and gender
- **How often:** ongoing, continuous

C. Anti-microbial resistance testing of gonococcal isolates

- **Methods:** either continuous or periodic, sampling of isolates recovered from patients where cultures are routinely performed as part of clinical management
- **Sample size:** 100-300 isolates, when feasible, with epidemiological consultation sought to determine the final sample size depending on local conditions. Modifications to the sample size can be made in response to findings from previous surveys.
- **Who will do it:** major clinical and/or public health laboratories
- **How to choose isolates:** random or systematic selection of isolates if not performing routine testing of all isolates



- **What information is reported:** number of isolates tested and proportion resistant to each antibiotic assessed. Antibiotics (or classes of antibiotics) commonly used for treatment should be included in the sensitivity testing.
- **How often:** ongoing, continuous if already being performed, otherwise, every 1-3 years with periodicity dependent on clinical response to treatment
- **Options:** A central laboratory in the region could be contracted to perform the testing for countries not performing any gonococcal antibiotic sensitivity testing. Alternatively, countries may be able to use the data from neighboring areas with major public health laboratories, provided treatments and clinical response to treatments are not disparate.

Antenatal Clinic Attendees

A. Syphilis

- **Methods:** continuous reporting of reactive serologic tests for syphilis among pregnant women in locations which routinely test all antenatal clinic attendees
- **Sample size:** all women tested in public antenatal clinics; may use sentinel sites
- **Who will do it and where:** health care providers, in public clinics
- **How to identify cases:** females presenting for antenatal care
- **What information is reported:** total monthly counts by age group
- **How often:** ongoing, continuous
- **Options:** This methodology may be modified to assess syphilis in other populations including the military and prisoners.
- **Special considerations:** Confidential serologic testing can be an important source of specimens for unlinked anonymous HIV testing and surveillance. If periodic HIV testing of a sample of antenatal clinic attendees is warranted, serologic HIV and syphilis testing should be coordinated to minimize duplication in sampling.

B. Gonorrhoea and Chlamydia

- **Methods:** periodic prevalence assessments for gonorrhoea, chlamydia (and syphilis in clinics not routinely testing for this). The testing should be confidential with treatment available for confirmed infections.
- **Sample size:** 200-500 women, when feasible, with epidemiological consultation sought to determine the final sample size depending on local conditions. Modifications to the sample size and periodicity can be made in response to findings from the initial survey.



- **Who will do it:** health care providers and in public antenatal clinics
- **How to identify participants:** females presenting for antenatal care
- **What information is reported:** total monthly counts by age group
- **How often:** every 1 - 2 years
- **Options:** This method may also be used to assess women seeking care at family planning clinics.



Blood Donors

- **Methods:** continuous reporting of reactive serologic tests for syphilis among persons donating blood. The testing should be confidential with treatment available for confirmed infections.
- **Sample size:** all persons donating blood
- **Who will do it:** blood banks
- **How to identify participants:** blood donors
- **What information is reported:** total monthly counts by gender and age group
- **How often:** ongoing, continuous in all sites that routinely test blood donors for reactive syphilis serology

Special Studies

Evaluation of syndromic management of STI

This activity should be conducted at a regional reference laboratory approximately every three years with the periodicity dependent clinical information (response or non-response to recommended therapies for each syndrome). This evaluation would likely be performed only in the larger countries but could be implemented in smaller countries if there was a need to do so.

Other studies or surveys that might be appropriate are those which attempt to assess public and private sector STI screening and reporting practices and the proportion of all STI treated by physicians in the private sector.

Details of the methodologies employed for conducting special studies are beyond the scope of these guidelines



GUIDELINES FOR BEHAVIORAL RISK SURVEILLANCE

I. *Overview and rationale*

- **Ongoing surveillance for behavioural risks** is a key element of an effective HIV and STI prevention programme for several reasons:
 - positive changes in sexual risk-taking behaviour are required for prevention of HIV and STI transmission
 - fostering change requires good baseline knowledge of behavioural risk-taking
 - behavioural data serves as an early warning of HIV/ STI risk and identifies populations at risk
 - good quality behavioural data is needed for planning and for evaluation, and
 - behavioural data can explain variations and changes in disease prevalence
- **A behavioural risk surveillance strategy that is appropriate** for low-level epidemic states is needed in Pacific Island countries and areas. This strategy should address the extent of risk behaviours that might lead to an HIV epidemic and potential links between sub-populations at risk and the general population. Therefore, in the Pacific region, behavioural surveillance should focus on specific sub-populations where most new HIV infections are concentrated. As much as possible, behavioural data should be linked with HIV data to provide further insights into the dynamics of the epidemic. Further, behavioural data can help predict, and thus influence, the progress of the epidemic by describing links (via “bridge” groups) between sub-populations with higher-risk behaviours and the general population.
- **Behavioural risk data collection methods** include identifying risk behaviours, quantifying the sub-populations with higher risk (especially sex workers, men who have sex with men [MSM], injecting drug users [IDU], and certain occupational groups), examining links between these sub-populations and the general population, and establishing ongoing behavioural monitoring both in higher-risk populations and, if warranted, in the general population as well. Specific options include reviews of existing data; rapid assessments through interviews, focus groups, and small rapid surveys; qualitative research; and cross-sectional surveys. Because of the small yet diverse populations of the Pacific, special considerations are needed to ensure that the

optimum mix of available methods is chosen, considering the frequency of data collection, the scale on which to survey, and the resources available. The recommended guidelines for behavioural risk surveillance in Pacific island countries and areas are grouped by sub-population below. Sub-populations other than those cited might also be appropriate to be included in surveillance activities in some settings.

II. Targets, Indicators and Populations for Surveillance

When developing survey questionnaires, investigators should, to the fullest extent possible, use wording that conforms to global or commonly-accepted standards. This practice will ensure the consistency of questions over time and permit comparisons to be made to other populations in other countries or areas. The targets and indicators noted below are indicative of the type of information that should be sought. (See the reference materials cited for specific suggestions on the wording used for questions.

YOUTH (15-24 years)

- Percentage of sexually active youths
- Median age of first sexual intercourse among sexually active youths
- Percentage of youths reporting more than one sexual partner during the previous 12 months
- Percentage of youths who consistently use condoms with non-regular sex partners
- Alcohol use and the influence of alcohol in sexual decision-making
- Drug use and the influence of drug use in sexual decision-making
- Age of sexual partners
- Percentage of male youths who had sex with female CSWs
- Percentage of male youths who had sex with CSWs during the last 12 months
- Proportion of male youths consistently using condoms with female sex workers

For further details refer to global indicators, for example, the draft "FHI / Impact / USAID / DFID / HIV / AIDS/STD Behavioural Surveillance Surveys Part 1: Instruments, Indicators, and Interview Guidelines", Family Health International 1999.



SEX WORKERS

- Proportion of female sex workers who consistently use condoms with non regular sex partners (negotiated condom use)
- Number of clients/partners per day/month/year
- Types of sexual acts (e.g. vaginal/anal/oral sex)
- Proportion of male sex workers
- Reasons why sex workers became sex workers
- Proportion of those who receive regular health check-up
- Locations where sex workers go for health check
- Economic status (e.g. annual income)
- Alcohol use and the influence of alcohol in sexual decision-making
- Drug use and the influence of drug use in sexual decision-making

For further details refer to global indicators, for example, the draft "FHI/Impact/USAID/DFID/ HIV/AIDS/STD Behavioural Surveillance Surveys Part 1: Instruments, Indicators and Interview Guidelines," Family Health International 1999.

SEA FARERS

- Proportion of seafarers with more than one sexual partner in the last 12 months
- Proportion of seafarers who consistently used condoms with non-regular sex partners
- Proportion of seafarers having sexual intercourse with CSWs in the last 12 months
- Proportion of seafarers consistently using condom with female sex workers
- Alcohol use and the influence of alcohol in sexual decision-making
- Drug use and the influence of drug use in sexual decision-making

III. Proposed Surveillance Methods by Population

Youth

- **Youth were recognized as a key group** because they are impressionable, vulnerable and, therefore, easily influenced behaviourally. Youth is not a homogeneous category, however, and there are at least four distinct groups that may be addressed when conducting behavioural research: urban school attendees, urban youth not in school, rural school attendees, and rural youth not in school.



- **Qualitative research** is important to get an overall impression of youth behavior. (Is there a significant difference between rural vs. urban youth?). Therefore, properly designed qualitative surveys need to be conducted.
- **Cross-sectional** surveys using standardized key indicators are also needed to obtain objective quantifiable data that can be compared to recognized targets and indicators. In general, the qualitative research should precede any cross-sectional studies; the information gained through qualitative, formative research can then be used to modify or amend standard survey instruments for cross-sectional surveys which yield quantitative data.

A. QUALITATIVE

- **Methods:** in-depth interviews, use of key informants and focus groups
- **Sample size:** generally a few, specific people
- **Who will do it:** primarily MOH/DOH staffs/researchers, NGOs, and peers
- **How to identify participants:** convenience sampling
- **What information is reported:** information on sexual behaviour, alcohol & drug use, also see Section II above)
- **How often:** once and then repeated as needed

B. CROSS-SECTIONAL SURVEYS

- **Methods:** systematic household or school-based surveys
- **Sample size:** 250-400 individuals
- **Who will do it:** primarily MOH/DOH staffs, researchers and NGOs
- **How to identify participants:** through school attendance or residence in household
- **What information is reported:** information on sexual behaviour, alcohol & drug use (standard questionnaires to be adapted to specific conditions, also see Section II above)
- **How often:** every 3-5 years in larger countries and 5-10 years in smaller countries

Sex Workers

- Sex workers are divided into two types, **direct** and **indirect**. When present, both should be included in behavioural risk surveillance activities. As with youth, **qualitative research** with sex workers is important to get an overall impression of behavior. **Small sentinel periodic** surveys using standardized key indicators are also needed to obtain more quantifiable data for comparison to recognized



- targets and indicators. In general, qualitative research should precede any sentinel studies. The information gained through qualitative, formative research can then be used to modify or amend standard survey instruments for sentinel surveys.

A. QUALITATIVE

- **Methods:** in-depth interviews, use of key informants, focus groups, and record reviews
- **Sample size:** specific people with the final number dependent on the number available
- **Who will do it:** social scientists, NGOs, and MOH/DOH staff
- **How to identify participants:** through networks, NGOs, peers, workplace, government services (social welfare department, women’s crisis centres and counseling centres)
- **What information is reported:** Standard surveys will be used soliciting information on sexual behaviour, alcohol & drug use, economics and health. Investigators should adapt standard questionnaires (see Section II above).
- **How often:** Once and then as needed

B. SMALL SURVEYS

- **Methods:** sentinel surveys
- **Sample size:** as many as possible, up to 250 individuals, final sample size is dependent on the number of sex workers available
- **Who will do it:** social scientists, NGOs, peers, and MOH/DOH staff
- **How to identify participants:** identified through networks, NGOs, governments services, peers (possible referral of friends/colleagues -- possible “snowball” effect)
- **What information is reported:** Standard surveys will be used to solicit information on sexual behaviour, alcohol & drug use, economics and health. Investigators should adapt standard questionnaires (see Section II above).
- **How often:** every 1 to 3 years where the populations of sex workers is known and readily identifiable; every 3 to 5 years where the population of sex workers is hidden

MSM or IDU

Although only a very small proportion of men who have sex with men (MSM) engage in sex for gain, MSM are in some countries another relatively “hidden” group. The surveillance methods described above for sex workers can be adapted and used in qualitative research and in small surveys among MSM as well.



While injecting drug users (IDU) are present only in small numbers in a few Pacific island countries, these methods may be adapted for surveillance among them.

Qualitative methods should be encouraged wherever possible among MSM and IDU to identify the likely magnitude of risk behaviours, and to guide further surveillance and prevention activities.

Seafarers

- Seafarers are regarded as an example of a **high risk occupational group**. This methodology could also be adapted for other occupational groups including garment workers, migrant workers, etc.

A. QUALITATIVE

- **Methods:** in-depth interviews, use of key informants, focus groups, and record reviews
- **Sample size:** specific people
- **Who will do it:** social scientists, NGOs, and MOH/DOH staff
- **How to identify participants:** identified through networks, NGOs, peers, workplace, and trainers of seafarers
- **What information is reported:** information on sexual behaviour, alcohol & drug use. Investigators should adapt standard questionnaires (see Section II above).
- **How often:** once and then as needed

B. SURVEYS

- **Methods:** sentinel surveys
- **Sample size:** as many as possible, up to 250 individuals, final sample size is dependent on the number of seafarers available
- **Who will do it:** social scientists, NGOs, peers, and MOH/DOH staff
- **How to identify participants:** identified from union rosters of seafarers, trainers of seafarers, and seafarer recruiters/employers, official lists maintained by pertinent ministries, health care centers and the workplace
- **What information is reported:** information on sexual behaviour, alcohol & drug use. Particular importance should be placed on the need to determine the STI/HIV/AIDS knowledge of seafarers (and possibly that of spouses and/or partners). Investigators should adapt standard questionnaires (see Section II above).
- **How often:** every 1 to 3 years



Population: **General Public**

Surveillance category	Survey or reporting method	Sample size	Who will do it?	How to identify cases or participants?	What information is reported?	How often?
HIV	Health care and laboratory diagnostic testing and reporting	All available reports	Health workers and laboratories (including private sector)	Self-identified, or contacts	HIV incidence, by age, gender / AIDS Deaths by age gender	Continuous
STI (Syndromic)	Health care worker and facility reporting	All available reports	Health workers (including private sector)	All males presenting with urethral discharge	Total monthly counts by age group, location	Continuous
STI (Etiologic)	Laboratory notifiable disease reporting	All available reports	Laboratory workers (including private sector)	Persons tested for clinical care	Confirmed GC and Chlamydia cases by age group, gender, location	Continuous
STI (antibiotic resistance)	Sentinel periodic laboratory survey; continuous if done	100-300 GC isolates	Laboratory staff at major facilities	Sample of gonococcal cultures	Gonococcal antibiotic sensitivity rates	Every 1 - 3 years
Behavioural	None					

Population: **Antenatal clinic**

Surveillance category	Survey or reporting method	Sample size	Who will do it?	How to identify cases or participants?	What information is reported?	How often?
STI (Syphilis)	Continuous reporting for sites which test all women; for others periodic prevalence assessment	All available reports	MOH	Women receiving antenatal care (first visit of pregnancy)	Syphilis serology test results, by month and age	Continuous
STI (GC and Chlamydia)	Sentinel periodic prevalence assessment	200-500	MOH	Women receiving antenatal care (first visit of pregnancy)	GC, chlamydia prevalence	Every 1 - 2 years
Behavioural	None					
HIV (Optional)	Sentinel periodic prevalence assessment	As many as possible, up to 500, depending on local factors	MOH	Women receiving antenatal care (first visit of pregnancy)	HIV prevalence (test result by age)	Every 5 years

Population: **Blood Donors**

Surveillance category	Survey or reporting method	Sample size	Who will do it?	How to identify cases or participants?	What information is reported?	How often?
STI	Continuous reporting for sites which routinely test	All available reports	Blood bank staff	Every blood donor	Syphilis serology test results, by month	Continuous
Behavioural	None					
HIV (Optional)	Continuous	All available reports	Blood bank staff	Every blood donor	HIV test results, by month and age	Continuous

Population: **Youth**

Surveillance category	Survey or reporting method	Sample size	Who will do it?	How to identify cases or participants?	What information is reported?	How often?
HIV	None					
STI	None					
Behavioural	Qualitative; key informants, focus groups	Specific people	Peers, NGOs, MOH/DOH, or researchers	Convenience	Info on sexual behaviour and risks in youth (adapt standard questionnaires)	Once and as needed
Behavioural*	Cross-sectional	250-400, if possible	Peers, NGOs, MOH/DOH, or researchers	School or household systematic	Info on sexual behaviour and risks in youth (adapt standard questionnaires)	Every 3-5 years in large countries and every 5-10 years elsewhere

* May be subdivided into as many as four survey populations, depending on qualitative research results: urban/ rural, in-school/ out of school

Population: **Sex Workers**

Surveillance category	Survey or reporting method	Sample size	Who will do it?	How to identify cases or participants?	What information is reported?
HIV	Unlinked anonymous testing using systematic or random sampling	As many as possible, up to 500, depending on local factors	MOH, NGOs or peers	Identified by networks, NGOs, and social services	Age, gender, HIV test result
STI	None				
Behavioural	Qualitative	Specific people	Social scientists, NGOs, MOH/DOH staff	Identified by networks, NGOs, government services, peers	Info on sexual behaviour and risks in sex workers (adapt standard questionnaires)
Behavioural	Sentinel periodic (small surveys)	As many as possible - up to 250	Social scientists, NGOs, peers, DOH/MOH staff	Identified by networks, NGOs, government services, peers (possible "snowball" effect)	Info on sexual behaviour and risks in sex workers (adapt standard questionnaires)

* May be divided into sub-populations, depending on qualitative research, e.g. direct and indirect sex workers

Population: **MSM or IDU**

Surveillance category	Survey or reporting method	Sample size	Who will do it?	How to identify cases or participants?	What information is reported?
HIV	Unlinked anonymous testing using systematic or random sampling	As many as possible, up to 500, depending on local factors	MOH, NGOs or peers	Identified by networks, NGOs, and social services	Age, gender, HIV test result
STI	None				
Behavioural	Qualitative	Specific people	Social scientists, NGOs, MOH/DOH staff	Identified by networks, NGOs, government services, peers	Info on sexual behaviour and risks in sex workers (adapt standard questionnaires)
Behavioural	Sentinel periodic (small surveys)	As many as possible - up to 250	Social scientists, NGOs, peers, DOH/MOH staff	Identified by networks, NGOs, government services, peers (possible "snowball" effect)	Info on sexual behaviour and risks in sex workers (adapt standard questionnaires)

Population: **Seafarers**

Surveillance category	Survey or reporting method	Sample size	Who will do it?	How to identify cases or participants?	What information is reported?
HIV	Unlinked anonymous testing using systematic or random sampling	As many as possible up to 500	MOH (through existing seafarer medical checks)	Employment agencies	Age, gender, HIV test result
STI	None				
Behavioural	Qualitative	Specific people	MOH, social scientists, NGOs	Identified by NGOs, trainers, peers, the workplace	Info on sexual behaviour and risks in seafarers (adapt standard questionnaires)
Behavioural	Sentinel periodic	As many as possible - up to 250	Social scientists, NGOs, peers, MOH	Identified from union rosters, employers, recruiters, government lists	Info on sexual behaviour and risks in seafarers (adapt standard questionnaires)

Population: **STI Clients**

Surveillance category	Survey or reporting method	Sample size	Who will do it?	How to identify cases or participants?	What information is reported?
HIV	Unlinked anonymous testing using systematic or random sampling of sera collected for syphilis tests	As many as possible, up to 500, depending on local factors	MOH, STI clinics	Patients presenting for STI care and receiving serologic syphilis testing	Age, gender, HIV test result
STI	See section on general public above				
Behavioural	None				

Population: **Military**

Surveillance category	Survey or reporting method	Sample size	Who will do it?	How to identify cases or participants?	What information is reported?
Behavioural	None				
HIV (Optional)	Unlinked anonymous testing using systematic or random sampling of sera	250-400	Military staff, MOH	Sampling of blood drawn for military physicals	Age, gender, HIV test result
STI (Optional)	Confidential testing as part of routine physicals; continuous testing or periodic survey	250 - 400; or all available if continuous	Military staff, MOH	Military intake or periodic physicals	Syphilis

Population: **Prisoners**

Surveillance category	Survey or reporting method	Sample size	Who will do it?	How to identify cases or participants?	What information is reported?
HIV	Unlinked anonymous testing using systematic or random sampling of sera	As many as possible, up to 500, depending on local factors	MOH	Incarcerated inmates	Age, gender, HIV test result
Behavioural	None				
STI (Optional)	Sentinel periodic	250 - 400	MOH	Random selection	Syphilis

Population: **TB Patients**

Surveillance category	Survey or reporting method	Sample size	Who will do it?	How to identify cases or participants?	What information is reported?
HIV	Unlinked anonymous testing using systematic or random sampling of sera for CBC, LFTs etc.	As many as possible, up to 500, depending on local factors	MOH, Hospitals and TB clinics	TB patients presenting for care	Age, gender, HIV test result
STI	None				
Behavioural	None				