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Guidelines for HIV & STI surveillance in Pacific Island countries

At their meeting in March in Samoa, Pacific Island Health Ministers made various recommendations for tackling HIV and AIDS in the region. One recommendation was to strengthen HIV and STI surveillance.[1] This paper summarises HIV and STI surveillance measures that may assist this, including:

1. Notification of all diagnosed cases of HIV, AIDS and STIs
2. Reporting on HIV screening programme results
3. Periodic surveys of HIV, STIs and risk behaviours in at-risk/vulnerable groups

These activities can help ensure that HIV prevention and AIDS treatment programmes are evidence based and targeted appropriately.

1) Notification of HIV, AIDS and STIs

The following measures may help strengthen and sustain notification of HIV, AIDS and STI cases.

i) Increase access to voluntary and confidential HIV counselling and testing (VCCT). Offering testing via generalist and peripheral clinics as well as vertical HIV/STI Programmes increases access and enables tests to be requested discreetly. Increasing community awareness and acceptance of HIV testing is also important to encourage uptake. Ensuring patient confidentiality will assist this. Community leaders can reduce stigma and discrimination associated with HIV by supporting HIV testing as a routine but important health service.

ii) Follow-up, refer and treat identified cases. Ensuring health staff are trained in HIV and AIDS medicine and ensuring treatments are available will encourage testing. Contact tracing (with patient consent) can identify further cases. Prevention case management can be initiated.

iii) Ensure notification of all persons diagnosed with HIV, AIDS and AIDS related deaths. It is suggested that all HIV, AIDS and STI cases be notified directly to the HIV/STI Programme (Figure 1). Having the HIV/STI Programme manage HIV and STI notification helps to:

- ensure complete and confidential case recording;
- identify duplicate notifications and distinguish these from repeated infections (e.g. of STIs);
- allow clinical updates, for example when persons with HIV may progress to AIDS; and
- enable the HIV/STI Programme to better coordinate HIV and STI services.

All the following health care providers need to notify any HIV, AIDS or STI cases they diagnose:

- vertical programmes (e.g. STI, TB, MCH and RH services);
- screening programmes (e.g. blood donor, prenatal/antenatal occupational and migrant screening);
- generalist/peripheral services (e.g. hospitals, outpatients, primary health clinics);
- private health care providers;
- pathology laboratories (public and private).

Health care providers need to have supplies of notification forms or electronic means of notifying. Countries need to consider the enactment of Public Health legislation requiring notification from all health care providers including laboratories (to ensure notification of positive test results).

iv) Enter details of notified HIV and AIDS cases into a national register. It is suggested that the HIV/STI Programme manage this register for confidentiality reasons. Protection is ensured by:

- password protecting all computer networks and register files;
- restricting access to patient identifiers to clinical staff involved in patient care;
- ensuring all health staff are trained in and bound by patient confidentiality policies;
- using code numbers for specimens and test results; and
- de-identifying data for disease reporting.

Details of a simple HIV and AIDS Register are given in the box.

Temporary layout

v) Report HIV, AIDS and STI statistics. The following summary reports are suggested:

- all confirmed positive HIV cases (including persons diagnosed with AIDS);
- all AIDS cases (based on presence of AIDS defining illness);
- all AIDS related deaths;
- all STI cases (e.g. syphilis, gonorrhoea, chlamydia, herpes, trichomoniasis).

Reports can be produced by year, gender, 5-year age group, ethnicity if appropriate and transmission category (for HIV and AIDS).

Note: In US affiliated Pacific Islands, HIV notification to CDC is only required for cases not previously notified from other US jurisdictions. This underestimates local disease burden. All resident cases should also be recorded in the national HIV and AIDS Register and it is suggested that reports for local use are produced of all resident cases. A record of notification to CDC can also be kept in the Register.

2) Reporting on HIV screening programme results

Typically all blood donors are tested for HIV and all pregnant women are offered testing. Further screening may occur of TB patients, STI patients, sex workers, migrant workers, other occupational and other groups. Reports of screening programmes give information about the extent of HIV in these sub-populations. Screening programme results are best reported by the testing laboratory. This enables reporting of the total numbers of tests, the number of diagnosed HIV cases and percentage positive rates (all by year, gender and age group). Even where no HIV cases are detected it is useful to report each screening programme annually. Ensuring that the test request form sent to the laboratory includes age, sex and reason for test (e.g. blood donation) enables laboratories to produce summary reports on HIV screening programmes.

3) Surveys of HIV, STIs and risk behaviours in at-risk groups

The above routine reporting needs to be complemented by surveys of HIV, STIs and risk behaviours. Surveys in at-risk groups give the most important information about the extent of HIV infection and risk behaviours that influence transmission of HIV. In low-level epidemic situations (much of the Pacific) detection of HIV in at-risk groups may illustrate the early need for targeted health programmes. UNAIDS second generation surveillance (SGS) methods can be used to monitor HIV & STIs in at-risk groups.[2] In general three types of survey may be performed:

- HIV sero-surveillance survey (HSS) — HIV testing in at-risk groups
- STI prevalence survey (SPS) — HIV, syphilis, gonorrhoea, chlamydia, hepatitis B, plus other STIs of local relevance
- Behavioural surveillance survey (BSS) — risk behaviours

Selecting at-risk groups to survey depends on the local situation. Routine surveillance data may give some indication and a needs assessment may identify at-risk groups. Some groups to consider are: unemployed or street youth, seafarers, uniformed services (e.g. police, military), female sex-workers (casual and professional), transgender individuals and men who have sex with men. STI clinic patients may be offered HIV testing and certain occupational groups may also be considered, especially those associated with overseas visitors (e.g. port workers, fishing industry workers, hospitality staff). Surveying STIs in pregnant women, particular 15–24 years, can give a proxy for STI incidence in the general population. STIs rates also indicate levels of risk behaviour and the potential for spread of HIV in the population.

Surveys are best performed periodically, for example every one to three years dependent upon who is surveyed and on the survey findings. The current SGS programme in the Pacific has been summarised previously.[3] Further SGS assistance and resources are available from SPC on request.

Development of health information systems for monitoring HIV and STIs

Use of various health information systems (HISs) can assist the above surveillance processes:

i) HIV/STI Programme HIS. If individual HIV & STI patient details are collected, an STI-HIS can be used for patient management, disease surveillance, and programme monitoring and evaluation (figure 1).

ii) An HIV and AIDS Register. Suggested core data items for inclusion in the Register are shown in the box.

HIV and AIDS Register Core Data

- Identifier — some way of identifying each HIV case *(e.g. name, IDcode, MRN, Soundex)*;
- Gender (Male, Female, Transgender, Unknown);
- Date of birth (DOB; dd/mm/yyyy or mm/dd/yyyy)
- Ethnicity (locally appropriate); and Race (standardised groupings);
- Town/Village of residence (and Division/Island if appropriate)
- Reason for HIV test (e.g. symptoms, known risk, sex-work, type of screening)
- Date of confirmed HIV diagnosis (compute Age from Date diagnosed minus DOB)
- Risk category (Hetero, MSM, IDU, Perinatal, Blood, Other known, Unknown)
- Symptomatic – non-AIDS? (yes/no)
- Diagnosed with AIDS? (yes/no)
- Date (or year) of AIDS diagnosis (compute Age from Date diagnosed minus DOB)
- AIDS defining conditions (list conditions giving definitive/presumptive and Date diagnosed)
- Died? (yes/no)
- AIDS-related death? (yes/no/unknown)
- Date (or year) of death (DOD; compute Age from DOD minus DOB)
- Case notified to CDC (separately for HIV & AIDS) *(US affiliated PICTs only)*
- Comment field (e.g. links to other known cases).

Further clinical details may be added to these core surveillance data for HIV and AIDS case management (e.g. weight, viral load, CD4 count, further opportunistic infections, treatment and referral).

iii) Laboratory surveillance. This is important for monitoring any condition diagnosed via pathology testing including HIV, some STIs and many other communicable diseases. Laboratories should be requested to notify diagnosed cases to the Department/Ministry of Health (DoH/MoH). For HIV and STIs, it is suggested laboratories notify the HIV/STI Programme. Where DoH/MoH systems are networked, laboratory results may be entered directly onto patient records. For non-networked services, laboratories may keep separate testing registers and forward copies of results to both test requester and surveillance coordinator (HIV/STI Programme). Laboratory data are also important for monitoring overall testing activity and test yields.

iv) Department/Ministry of Health information systems. Once patient level data have been cleaned, de-identified and summarised, summary reports can be sent to the DoH/MoH. Often Public Health or Health Statistics sections collate surveillance data. HIV, AIDS and STI data may be included in:

- CRIS (a UNAIDS country-level HIV reporting system);[4]
- DoH/MoH disease reporting systems or management/executive information systems;

- DoH/MoH annual reports, health statistics digests and epidemiological profiles.

It should be possible for the HIV/STI Programme to manage all HIV/STI data in an appropriately designed HIS. Collection, analysis and reporting of these data are an important first step in designing evidence based prevention and treatment programmes.

Comments on this paper are welcomed. Further resources are available including a discussion paper and specifications for HIV/STI health information systems, and SGS survey methods and resources. Please contact the author – email: tims@spc.int or phone: +687 265 472.

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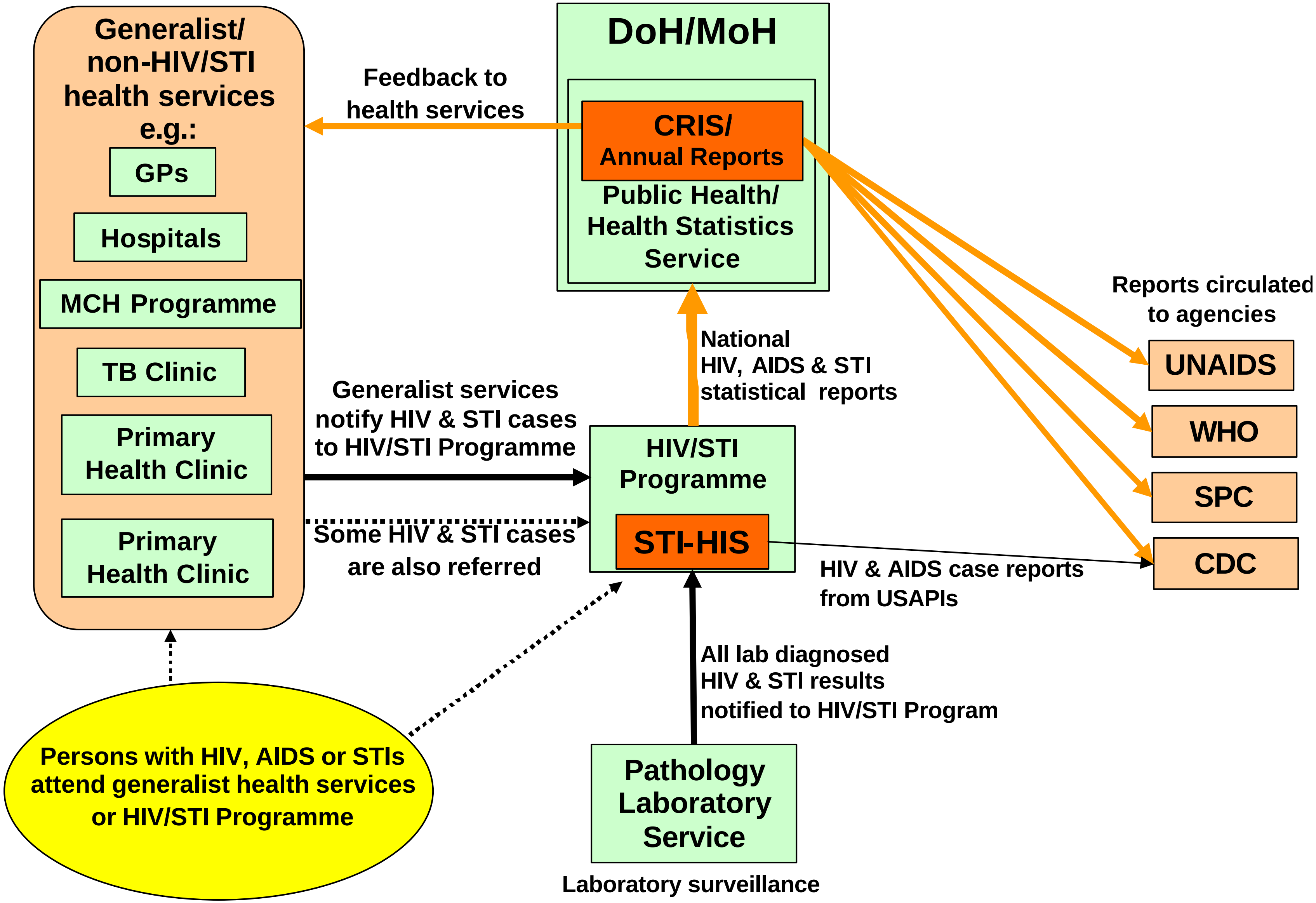
2. WHO/UNAIDS. Initiating second generation HIV surveillance systems: practical guidelines. 2002. UNAIDS/02.45E – WHO/HIV/2002.17. ISBN 92-9173-219-2.
3. Sladden T. Update on second generation HIV surveillance. Inform'ACTION August 2004, No 18: 14-17.
4. UNAIDS. Country Response Information System: Overview of the system and its plan for establishment. 2003. UNAIDS/03.09E. ISBN 92-9173-249-4.

Figure 1: HIV/STI programme based surveillance of HIV, AIDS & STIs



Generalist/ non-HIV/STI health services e.g.:

GPs

Hospitals

MCH Programme

TB Clinic

Primary Health Clinic

Primary Health Clinic

Feedback to health services

DoH/MoH

CRIS/ Annual Reports

Public Health/ Health Statistics Service

Reports circulated to agencies

UNAIDS

WHO

SPC

CDC

National HIV, AIDS & STI statistical reports

Generalist services notify HIV & STI cases to HIV/STI Programme

HIV/STI Programme

STI-HIS

Some HIV & STI cases are also referred

HIV & AIDS case reports from USAPIs

All lab diagnosed HIV & STI results notified to HIV/STI Program

Persons with HIV, AIDS or STIs attend generalist health services or HIV/STI Programme

Pathology Laboratory Service

Laboratory surveillance