Inform'ACTION Info
Information for action / Information pour action
AUGUST 2004

Update on second generation HIV Surveillance

Introduction

Surveillance of HIV and other sexually transmissible infections (STIs) in the Pacific advanced recently with a workshop on second generation HIV surveillance methods held in Nadi, Fiji Islands, during May. Representatives from 17 PICTs attended, together with surveillance and disease control specialists from SPC, WHO and University of New South Wales (UNSW).

Second generation surveillance of HIV

Second generation surveillance (SGS) can be described æs current best practice in HIV surveillance. Developed by WHO and UNAIDS, SGS is used to monitor HIV, STIs and behavioural risk factors associated with their transmission. SGS combines flexibility with a targeted approach, to monitor HIV in populations with different levels of HIV infection risk and exposure. SGS combines routinely collected data (e.g. from HIV screening programmes) with repeat surveys in at-risk or vulnerable groups to monitor HIV trends. Data are then used to develop interventions and evaluate the effectiveness of efforts to reduce the spread of HIV.

Worldwide, three HIV epidemic types have been described:

- **Generalised epidemics** refer to an HIV prevalence of over 1% in the general population, as seen in some African countries. Papua New Guinea is now also experiencing widespread HIV infection, with 1 to 2.7% of pregnant women attending PNG hospitals testing HIV positive.
- **Concentrated epidemics** occur where HIV infection rates are above 5% in at-risk subpopulations whilst the background, general population rate remains low. Such focused epidemics are seen in Australian men who have sex with men (MSM), and female sex workers (FSW) and injecting drug users (IDU) in some Asian countries. Such "bridging" populations can lead to generalised epidemics in the absence of support and control of infection.
- **Low-level epidemics** signify a prevalence of under 1% in the general population with no specific sub-population rate over 5%. This pattern is thought to best reflect the current situation in the majority of PICTs. The aim of the current round of HIV surveillance in the Pacific is to verify if this is actually the case.

HIV surveillance programmes in the Pacific

PICTs are conducting HIV surveillance with assistance from several funding partners including the Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) and the Australian–French funded Pacific Regional HIV/AIDS Project (PRHP). Surveillance under the GFATM is being conducted in six "sentinel" countries (Fiji Islands, Kiribati, Samoa, Solomon Islands, Tonga and Vanuatu). Tuvalu and Nauru have also received WHO funding to conduct and strengthen surveillance. The PRHP is assisting development of HIV surveillance in other countries including American Samoa, French Polynesia, Guam, Marshall Islands, Nauru, New Caledonia, Northern Mariana Islands, Tokelau, and Wallis and Futuna. Surveillance in Papua New Guinea receives further separate funding. Initial findings of these surveillance programmes will guide how to expand and continue surveillance across the whole Pacific region.

The current round of HIV SGS includes:

- **Reporting on HIV screening programmes.** PICTs conduct routine testing in groups such as blood donors, pregnant women, STI patients, seafarers, visa applicants and

prospective government employees. Programmes vary from country to country and provide insight into HIV prevalence in both the general population and certain at-risk groups.

- **HIV testing in at-risk/vulnerable populations.** Populations identified as at-risk include MSM, FSW, seafarers, STI patients, police and military personnel. In low-level epidemic settings, these at-risk groups are a logical place to begin surveillance.
- **Monitoring STIs in the general population** (HIV, gonorrhoea, syphilis, chlamydia and hepatitis B in some countries). Pregnant women making their first antenatal clinic visit provide a proxy for the general population. Young women in particular reflect incident (new) infections, being more likely to have recently become sexually active. STI prevalence is a good indicator of HIV risk behaviours and the presence of ulcerative STIs can increase HIV transmission.
- **Examining risk behaviours.** At-risk groups, including youth, FSW, MSM, seafarers, police and military, and transgender individuals will be surveyed for risks including age at first sex, number and type of sexual partners, engaging in commercial sex and extent of condom use. HIV-related knowledge, attitudes and behaviours (KAB) are also examined to help with shaping behaviour change strategies to reduce transmission and associated stigma and discrimination.

HIV Surveillance Workshop, Nadi, 11–14 May 2004

The surveillance workshop gave participants a greater understanding of HIV SGS methods and how to implement these locally. Workshop topics included selection of survey populations/sites, ethical issues, laboratory testing, questionnaire development and interviewing technique, data management, budgets and technical monitoring for survey work. The workshop included interactive sessions on interviewing and data management, as well as presentations by countries of their draft surveillance plans. Surveillance resources developed by UNSW were distributed, including a surveillance technical plan, associated survey protocols and questionnaires. Key sessions were videoed to facilitate further training in-country.

Next steps

Following the workshop, there is an ambitious workload to meet current reporting deadlines mid-2005 for GFATM supported sentinel countries. Several recent developments have occurred that should facilitate these surveillance efforts. The Second Pacific Regional Strategy on HIV/AIDS identifies the need to strengthen surveillance (see *Inform' ACTION* 17). Endorsed by the Pacific Leaders' Forum in August, the Strategy reiterates and confirms political commitment to HIV surveillance and control in the region. In June the Coordinating Body (CB) of the Pacific Public Health Surveillance Network (PPHSN) defined HIV/AIDS and STIs as priority diseases for surveillance and control. Following the PPHSN CB meeting, the Regional EpiNet meeting also prioritised HIV surveillance and recommended involvement of national EpiNet teams in HIV SGS surveys. Further, the Regional GFATM project has made progress towards procurement of antiretroviral drugs for: prevention of maternal-to-child HIV transmission (MTCT), post-exposure prophylaxis (PEP) for laboratory personnel, and post-survey management of persons diagnosed with HIV as indicated. All these activities lend support to HIV surveillance across the Pacific.

Further support for HIV surveillance

As well as EpiNet team involvement, other support for HIV surveillance needs to be mobilised. Countries have access to different expertise and resources and are encouraged to build HIV surveillance teams that capitalise on local skills. Support may include links with local universities. WHO Country Liaison Officers have an important role to play in assisting implementation of surveys. Country Statistics offices and behavioural specialists may be

able to assist with survey interviewing. Countries affiliated with donor and other developed nations may seek assistance from them; for example, US affiliated countries gain support through CDC. Recently, first-round PRHP small grants have been offered for HIV/AIDS projects. In-country mechanisms will be complemented by visits from SPC, WHO and UNSW surveillance specialists to support implementation and other key survey phases.

Conclusion

Second generation surveillance provides a flexible but targeted approach to monitoring the supposed, low-level HIV epidemic in most of the Pacific. The recent HIV surveillance workshop has provided initial training in SGS methods. Key stakeholders in the region have signalled their commitment and support for HIV surveillance, with it now being an acknowledged priority. Further work is needed for in-country training, implementation of surveys and integration with existing surveillance networks. Development of national HIV surveillance teams that draw on local expertise and resources, complemented by regional assistance, will advance surveillance efforts. There is much to be done, but gaining a better understanding of the extent of HIV infection in Pacific communities is crucial for targeting responses. Prevention and control efforts have to be based on evidence provided by sound monitoring and surveillance systems. Support for future HIV programmes will also be based on evidence gleaned from the current SGS. HIV surveillance teams are to be congratulated, and need to be supported in their upcoming efforts. We all look forward to observing the results of their important activities.

Tim Sladden
Surveillance Specialist – HIV/AIDS & STIs
Public Health Programme, SPC