

**CAMBODIA, APRIL 2001**

Careful analyses of available data from the HSS and the BSS were undertaken to determine a consistent approach for estimating the number of people living with HIV in Cambodia. The resulting estimates were 72 000 adult women and 97 000 adult men living with HIV in 2000. Using these estimates, it was calculated that the number of adults (15-49 years) living with HIV in Cambodia fell steadily from 210 000 in 1997 to 169 000 in 2000.

The decline was observed in all the sentinel groups except bar promotion girls, for whom the prevalence remained steady. A decline was also observed in the general population, most significantly among 15-19 year-olds. The decline was likely due to a combination of increased deaths in people with HIV infection and a slowing of the rate of newly infected people, probably due, in part, to reductions in risk behaviour. Nonetheless, the national prevalence of HIV infected individuals remains the highest of any country in Asia. The number of reported AIDS cases also rose sharply, with an increasing demand for AIDS care and treatment.

A series of recommendations were offered for consideration in the planning of the next round of HSS. These included conducting an integrated analysis of both HSS and BSS after separate analysis, and excluding hospital in-patients of TB cases as sentinel groups for future HSS. There was also a recommendation to conduct ad hoc behavioural and serological surveys in female factory workers, construction personnel and younger age groups to assess if they merit future insights into the dynamics of HIV transmission,

including husband/wife and mother/child transmission. Reporting as well as analysis of AIDS cases according to age, sex, transmission mode and presenting diagnosis was also encouraged.

**LAO PEOPLE'S DEMOCRATIC REPUBLIC, NOVEMBER 2001/FEBRUARY 2002**

Available data showed that heterosexual contact accounts for the majority of the identified HIV infections (93%). Most case reports of HIV/AIDS were from migrant workers returning overseas. Although HIV/AIDS cases are notifiable to the Ministry of Health, STI are not. Thus, the incompleteness of health information systems and the likelihood of under reporting have been recognized. In 2000, a second-generation surveillance system (SGS) was established with implementations of the BSS, HIV sentinel surveillance and STI periodic prevalence surveys. The findings of the first round of the SGS in Lao PDR and other related data from existing health system, research or ad-hoc surveys were presented in the first national HIV/AIDS meeting in Vientiane, Lao PDR in November 2001. There were discussions generated regarding data. The consensus process was completed by a follow-up meeting in February 2002. Data were released although the consensus report is still being finalized by the Ministry of Health and all surveillance partners (see "Second generation surveillance in Lao PDR" in this issue).

*Detailed consensus reports for Viet Nam, Malaysia and Cambodia are available on request from the Regional Office. The reports can also be consulted on the Regional Office for the Western Pacific website.*

## STI Surveys in China, Malaysia and Cambodia

Periodic STI prevalence surveys are important tools for monitoring STI trends and provide the basis for STI estimation. High STI prevalence was found among populations of women attending antenatal clinics (ANC women) in two cities (Apia, Samoa and Port Vila, Vanuatu) in the Pacific (STI/HIV/AIDS surveillance report, N.16, November 2000). During the period 1999-2000, WHO also supported some Member States to conduct similar surveys among ANC women (Malaysia) and populations at high-risk behaviours as sex workers (Malaysia, China) and truck drivers (China). Detailed reports can be obtained on request at WHO Western Pacific Regional Office or by connecting to the WHO Website.

In Cambodia, the most recent STI survey was conducted by the Ministry of Health in 2001 with support from Family Health International.

The key findings of these surveys are summarized as follows:

**PREVALENCE SURVEY OF STI AMONG FEMALE SEX WORKERS AND TRUCK DRIVERS IN CHINA**

A cross-sectional STI prevalence survey was conducted by the National Center for STD and Leprosy Control, China, in conjunction with the Kunming Institute of Dermatology, Yunnan Province and the Tongling Institute of Dermatology, Anhui Province, China. A total of 505 female sex workers, recruited in Kunming from November 1999 to May 2000, and 550 male truck drivers, recruited in Tongling from February to May 2000, participated in the survey. All eligible participants gave written informed consent.

Demographic, behavioural and clinical information from the participants were gathered by direct interviews. Tampon swabs and blood samples were collected from the women while urine and blood samples were collected from the men. Tampon swabs were tested using the polymerase chain reaction (PCR) technique for *Chlamydia trachomatis*, *Neisseria gonorrhoeae* and *Trachomatis vaginalis*. Urine

was tested with PCR for *C. trachomatis* and *N. gonorrhoeae*. Blood was tested for syphilis using rapid plasma reagin (RPR) serology as the screening test, and *Treponema pallidum* haemagglutination assay (TPHA) as a confirmatory test. HIV testing was carried out using enzyme-linked immuno-sorbent assay (ELISA) and, if positive, Western blot for confirmation. Free treatment was provided to study participants diagnosed with an STI.

Among female sex workers, the most prevalent STI was *Chlamydia trachomatis* (58.6%), followed by *Trichomonas vaginalis* (43.2%) and *Neisseria gonorrhoeae* (37.8%). Co-infection with both gonorrhoeae and chlamydiosis were noted in 25%. Ten percent of the sample were found positive for HIV infection, all of whom were injecting drug users; 9.5% had treponemal seropositivity. The highest prevalence of chlamydial infection or gonorrhoeae was observed among the 15-19 and the 19-24 age groups.

Among truck drivers, no positive HIV infection was found. The most prevalent STI was Chlamydiosis (10.2%) followed by gonorrhoea (7.8%). Treponemal seropositivity was low (0.7%). Two per cent had co-infection with both gonorrhoea and chlamydiosis.

#### PREVALENCE SURVEY OF STI AMONG SEX WORKERS AND WOMEN ATTENDING ANTENATAL CLINICS, MALAYSIA

A cross-sectional STI prevalence survey was conducted by the Division of Disease Control, Ministry of Health, Malaysia, in conjunction with the University Hospital, Ministry of Education, Kuala Lumpur, Malaysia. The aim of the survey was to determine the prevalence rates of laboratory-confirmed gonorrhoea, chlamydiosis, trichomoniasis, treponemal seropositivity and HIV infection in selected populations in Kuala Lumpur.

A total of 1 070 antenatal mothers recruited from August to October 1999, and 208 sex workers enrolled from April to November 2000, participated in this survey. All study participants, with or without symptoms, were tested for the five STI. Information on age and sex were also gathered.

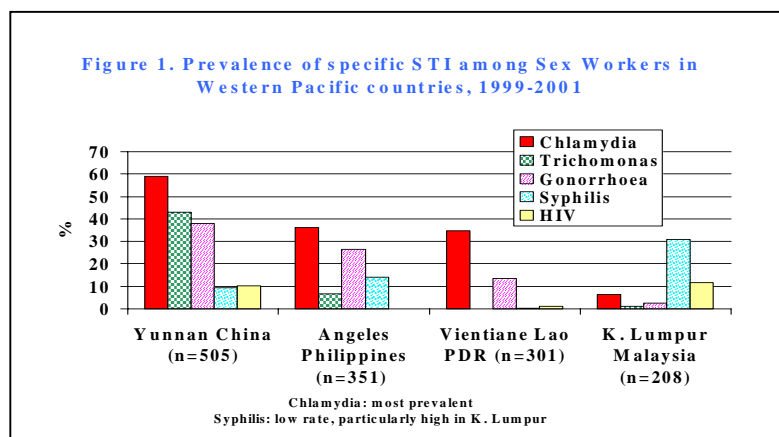
Confidential linked testing for syphilis, gonorrhoea, chlamydial infection, trichomoniasis and unlinked anonymous testing for HIV were carried out. Urine and blood samples were collected. Urine was tested using the PCR technique for *Chlamydia trachomatis*, *Neisseria gonorrhoeae* and *Trichomonas vaginalis*. Blood was tested using RPR and TPHA for treponemal antibodies, and two different ELISA for HIV. Treatment was provided for participants diagnosed with an STI.

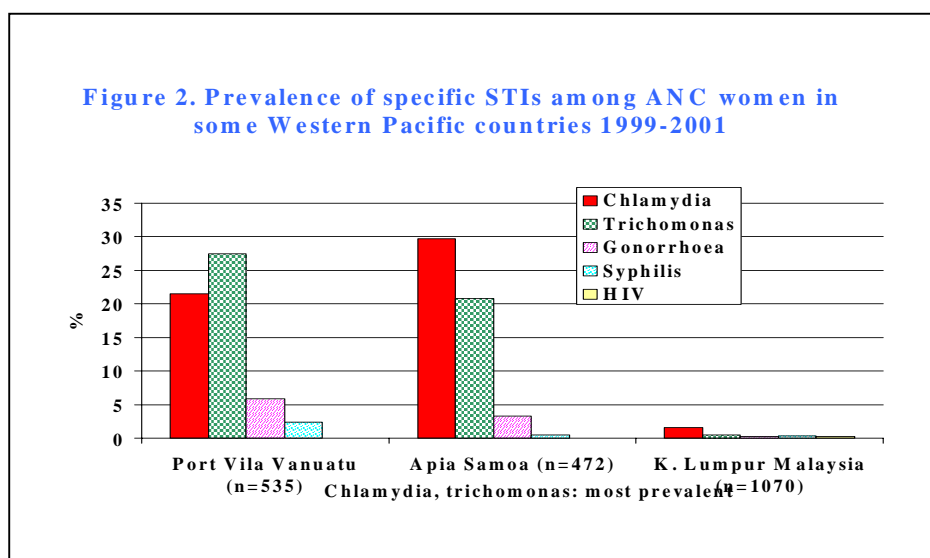
Among women attending antenatal clinics, the most prevalent STI was chlamydiosis (1.6%), followed by trichomoniasis (0.5%) and treponemal seropositivity and gonorrhoea (0.3% and 0.2% respectively).

Of the 208 sex workers, about 30.8% had positive treponemal antibody test results, 11.5% had positive HIV test results, 6.3% had chlamydiosis; 2.4% had gonorrhoea and close to 1% had a trichomonal infection. Further data analysis indicated that being young was associated with a higher chance of having chlamydiosis among antenatal women, while transsexual sex workers were more likely to have syphilis seropositivity than female sex workers.

#### COMMENTS ON SURVEY RESULTS OF CHINA & MALAYSIA

High STI prevalence was recorded among high-risk populations in study areas. In China, chlamydia is of the highest prevalence (Fig. 1, 2). High prevalence of HIV (10%) was detected among sex workers, all of infected women are injecting drug users. Thirty percent of sex workers reported using injecting drug. That implies an overlap between drug users and sex workers and indicates a high potential for HIV to spread from high-risk populations to the general population via heterosexual contacts. In Malaysia, syphilis had highest prevalence among sex workers. This is different from other observations in the region. These high prevalence rates of HIV infection and syphilis among sex workers of both genders, suggest that interventions need to focus on this group. Some STI was associated with the young age group in ANC women and sex workers. These findings were used for targeting interventions and developing further surveillance and research activities.





### SURVEY OF STI AMONG SEX WORKERS, POLICE AND WOMEN ATTENDING REPRODUCTIVE HEALTH CLINICS, CAMBODIA\*

A self-weighted cluster sampling design was used to select 141 brothel-based sex workers, 165 police and 451 women attending reproductive health clinics, from seven provinces. A standardized questionnaire and examination were administered. Samples were tested for *N. gonorrhoea*, *C. trachomatis*, *T. pallidum* and *H. ducreyi* and herpes simplex virus 2 (HSV-2).

Gonorrhoea prevalence was 14.2% among sex workers (SW) and 0.0% for both police (P) and reproductive health clinic

women (RHC). Chlamydia prevalence was 12.1% (SW), 1.8% (P) and 2.8% (RHC). Syphilis seropositivity (TPHA+/RPR1:8) was 2.8% (SW) and 0.0% (P), and 0.7% (RHC). Genital ulcers due to chancroid were seen in 1.4% (SW) and 0.4% (RHC), and HSV-2 ulcers in 0.7% (SW) and 0.4% (RHC). No primary syphilitic ulcer was seen in any group and no asymptomatic chancroid or syphilis were detected on routine vaginal swabs from sex workers, 2.4% of sex workers had evidence of asymptomatic HSV-2.

Low rates of STI support recent behavioural trends showing increasing levels of condom use in commercial sex and a decrease in commercial sex use among men. These findings are also consistent with recent declining HIV seroprevalence trends in the same groups.

#### References:

1. MOH/WHO, *Prevalence Survey of STI Among Female Sex Workers and Truck Drivers, China, September 2001.*
2. MOH/WHO, *Prevalence Survey of STI Among Sex Workers and Women attending Antenatal Clinic, Malaysia, 1999-2000*
3. L.B. Hor et al. *Success of Cambodian HIV prevention efforts confirmed by low prevalence of sexually transmitted infections and declining HIV and risk behaviors. Abstract WeOrC1271. XIV International AIDS Conference, Barcelona, July 7-12 2002*

## THE GONOCOCCAL ANTIMICROBIAL SURVEILLANCE PROGRAMME (GASP) OF THE WHO WESTERN PACIFIC REGION: PRESENT TRENDS

Early appropriate and adequate antibiotic use in treatment of gonococcal infections is an important factor in the successful control of the disease and in the prevention of its complications. Because the treatment of gonorrhoea is best given as a single dose treatment on initial diagnosis, standardized treatment schedules have been established. Cure of gonorrhoea with effective antibiotic treatment can also reduce the risk of HIV infection and the HIV transmission rate.

Unfortunately, the quick emergence of antimicrobial resistance of *Neisseria gonorrhoea* is a well-recognized fact.

This resistance in gonococci can spread rapidly between countries when infected travellers present for treatment in countries distant from the place of contact. Such situation significantly compromises individual and public health management of gonorrhoea, not only within a country but also within the Region. It is, therefore, important to have accurate country-based and Region-based data on antimicrobial resistance of gonococcus in order to guide the selection of an appropriate antibiotic treatment.