Hong Kong STD/AIDS Update

- a quarterly surveillance report

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Editorial

Fifty HIV and 10 AIDS cases were reported in Hong Kong from July to September 1999. These figures were within the expected frame of steady increase in number of patients. The male to female ratio is 3.2 to 1. The major route of transmission was sexual route which constituted 78%. Men having sex with men (MSM) alone constituted 18% even though we could not ascertain the degree of misclassification among cases labeled as "heterosexual contact" and "undetermined".

This quarter again recorded a new case due to injecting drug use (IDU). The particular risk of HIV infection for IDU comes from sharing injecting equipment that contains contaminated blood. The level of risk is thought to be higher than from unprotected sexual intercourse because HIV is injected directly into the blood or body tissue. The UNAIDS estimated that the global proportion of HIV infections due to needle sharing was 5 – 10% in 1996.

In Hong Kong, the first case of HIV-infected drug user was reported in 1985. As at the end of September 1999 there were 21 drug users reportedly infected HIV. This corresponded to about 1.6% of the local cumulative HIV infections. Nineteen drug users were male and 13 were ethnic Chinese. Six patients had progressed to AIDS and three were known to have died. Other risk factors had been identified for some cases-4 had heterosexual contact and one had bisexual contact.

As reported data carries the inherent limitations of under-diagnosis and under-reporting, additional surveillance mechanisms have been employed to provide better insight into the problem. They comprise of the voluntary HIV testing and unlinked anonymous screening (UAS) conducted at Methadone clinics and other drug rehabilitation institutions. For the UAS, 25,618 tests on the urine samples have so far been done for the attendants of these centres since 1985, and 18 positive samples were identified. The voluntary blood testing for HIV was started since 1991. So far, 5,122 blood tests were performed with 11 showing positive results. However, 1 blood sample was tested HIV positive this quarter.

The exact reasons underlying the low HIV prevalence among drug users in Hong Kong are often a matter of debates. Nevertheless, the main reasons are generally believed to be the lawful availability of cheap syringes and the easy accessibility of methadone treatment and drug rehabilitation, medical and allied support services for drug users. The existing low HIV prevalence in local drug users should, however, not be a reason for complacency. The world has witnessed many examples of rapid spread of HIV among injecting drug users. High level of needle-sharing and mixing of these drug users fuel the swift spread. HIV prevalence among IDU increased from about 1% at the start of 1988 to 32 - 43% by September 1988 in Thailand. Our "privileged" situation of low HIV prevalence in drug users serves to remind us of the importance of sustaining and enhancing efforts of public health surveillance and control.

Contents

Reported HIV/AIDS Quarterly Statistics

3rd Quarter (July - September) 1999

	This Quarter		Cumulative	
	HIV	AIDS	HIV	AIDS
Sex				
Male	38	9	1095	373
Female	12	1	210	46
Ethnicity/race				
Chinese	32	8	903	318
Non-Chinese	18	2	402	101
Asian	*14*	*2*	*176*	*48*
White	*2*	*0*	*169*	*51*
Black	*0*	*0*	*13*	*2*
Others	*2*	*0*	*44*	*0*
Age at diagnosis				
Adult	50	10	1275	411
Child (age 13 or less)	0	0	30	8
Exposure category				
Heterosexual	30	8	729	254
Homosexual	9	1	274	90
Bisexual	0	1	67	25
Injecting drug user	1	0	21	6
Blood/blood product infusion	0	0	68	18
Perinatal	0	0	9	4
Undetermined	10	0	137	22
Total	**50**	**10**	**1305**	**419**

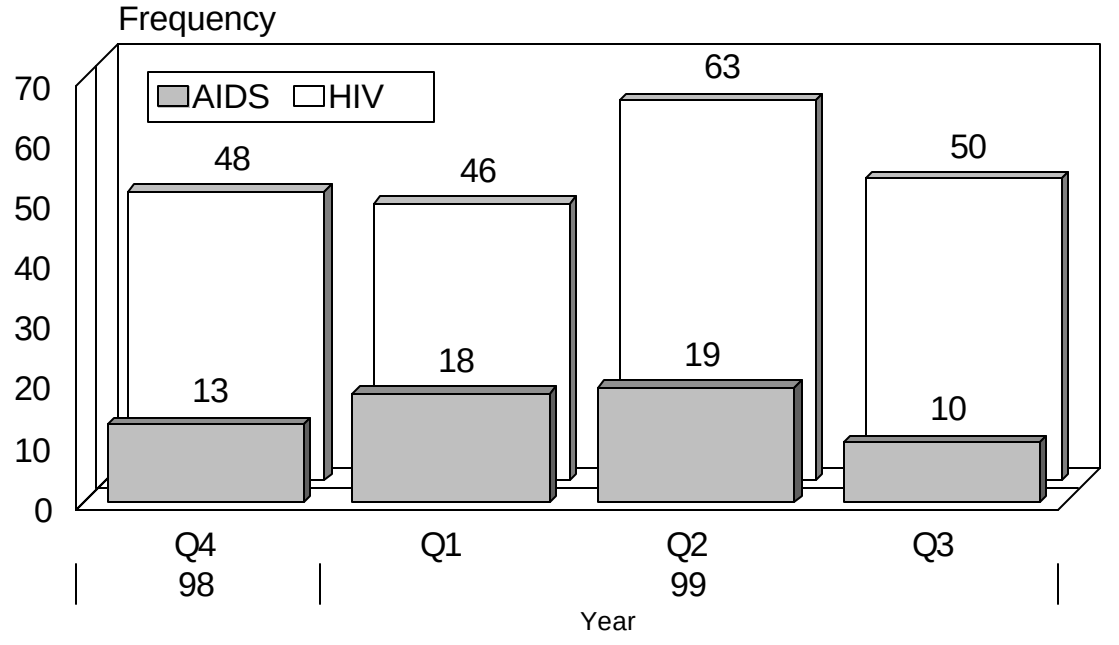
Sexually Transmitted Diseases Reporting at Government Social Hygiene Service

3rd Quarter (July - September) 1999

	This Quarter	Same Quarter Last Year
Syphilis		
Primary	79	90
Secondary	27	26
Early latent	71	73
Late latent	104	91
Late (cardiovascular/neuro)	0	2
Congenital (early)	0	0
Congenital (late)	1	0
Total	**282**	**282**
Gonorrhoea	866	723
Non-gonococcal urethritis (Male)	2261	2083
Non-specific genital infection (Female)	1839	2
Genital wart	1017	1027
Herpes genitalis	410	339
Pediculosis pubis/Scabies	164	199
Trichomonas/Monilia vaginitis	865	1711
Molluscum contagiosum	69	904
Genital ulcer	182	55
Chancroid/Lymphogranuloma venereum	2	189
Others	43	73
Total	**8000**	**7587**

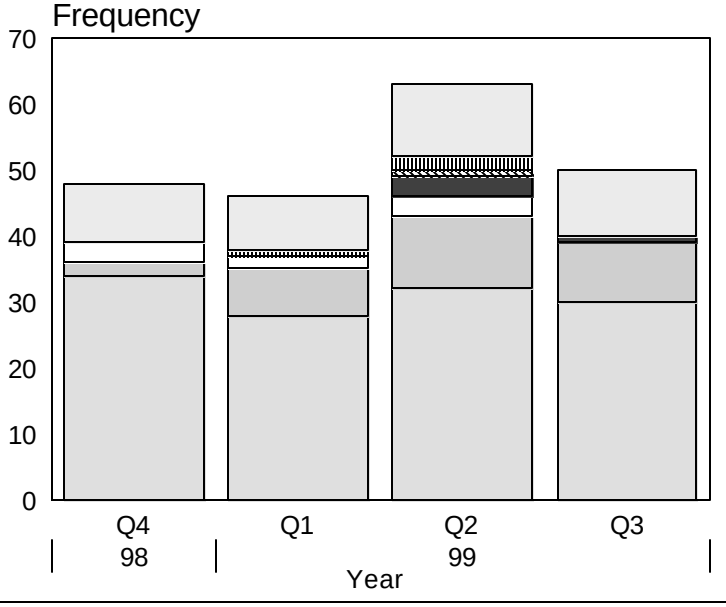
Hong Kong HIV/AIDS Voluntary Reporting

(3rd Quarter, 1999) Hong Kong



Hong Kong HIV Voluntary Reporting

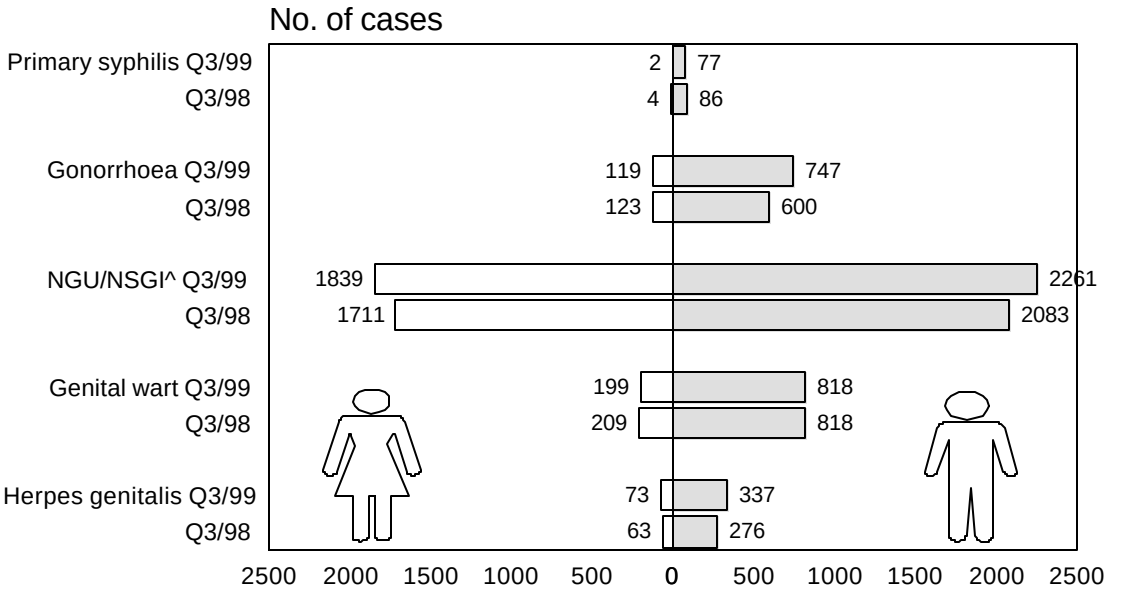
By Exposure Category (3rd Quarter, 1999) Hong Kong



HE : Heterosexual
HO : Homosexual
BI : Bisexual
IDU : Injecting drug user
BL : Blood/blood product infusion
PER : Perinatal
UN : Undetermined

Sexually Transmitted Diseases Reporting at GSHS*

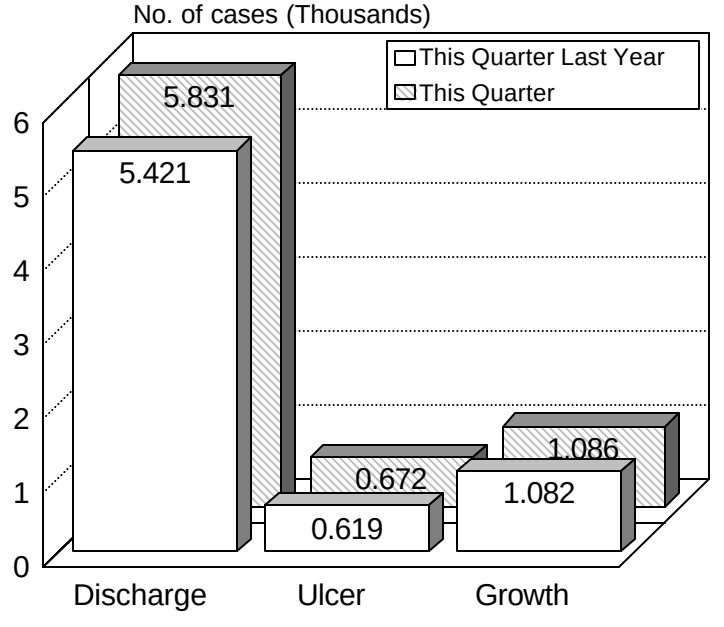
By sex (3rd Quarter, 1999) Hong Kong



* GSHS : Government Social Hygiene Service ^ NGU/NSGI : Non-gonococcal urethritis/Non-specific genital infection

Syndrome Presentations of STD in GSHS*

(3rd Quarter, 1999) Hong Kong



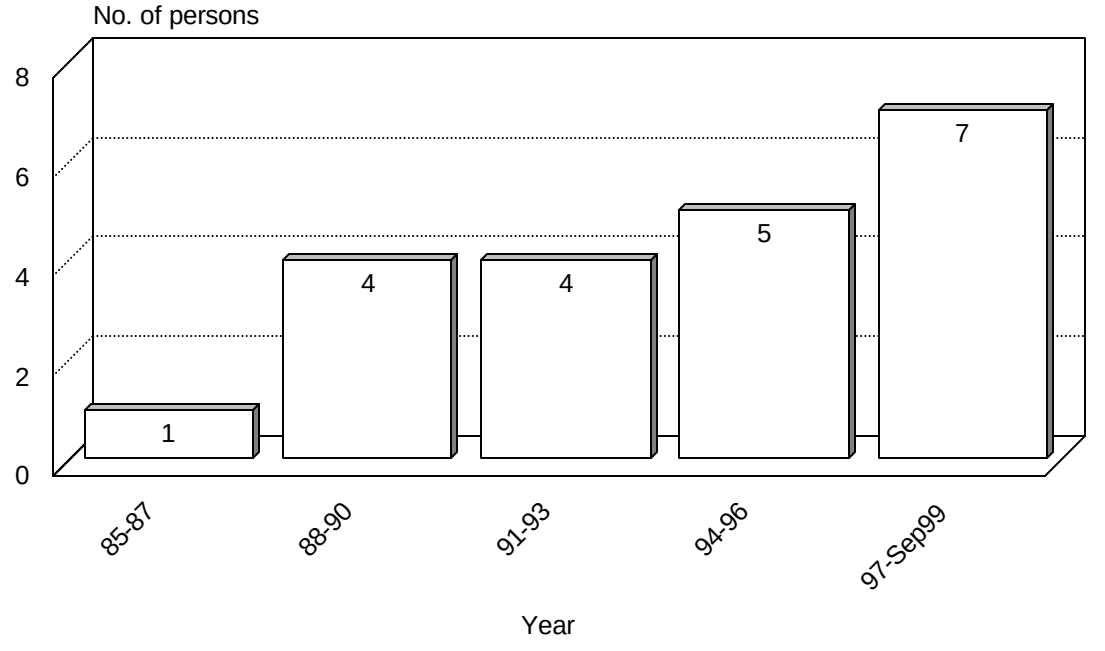
Diseases included under the various syndrome:

Discharge: Gonorrhoea
Non-gonococcal urethritis
Non-specific genital infection
Trichomonas/Monilia vaginitis
Ulcer: Chancroid
Primary syphilis
Herpes genitalis
Non-specific genital ulcer
Growth: Genital wart
Molluscum contagiosum

* GSHS : Government Social Hygiene Service

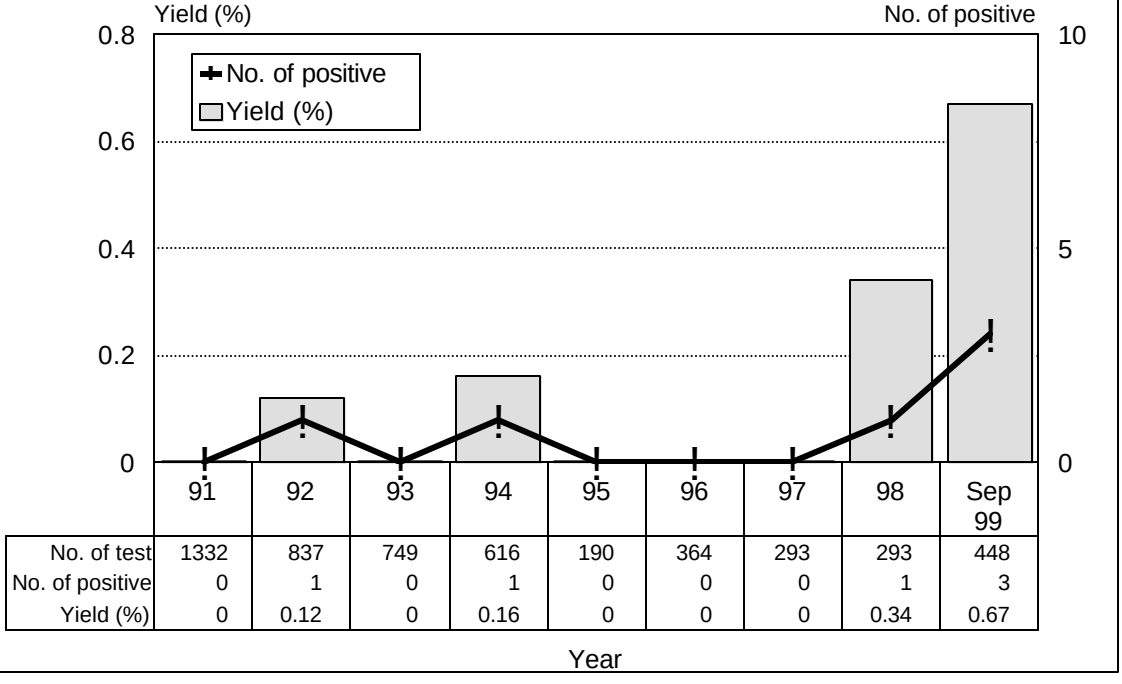
Reported HIV Infection through Injecting Drug Use

(1985 - September 1999) Hong Kong



Voluntary HIV Testing in Drug Treatment Centres

(1991 - September 1999) Hong Kong



	91	92	93	94	95	96	97	98	Sep 99
No. of test	1332	837	749	616	190	364	293	293	448
No. of positive	0	1	0	1	0	0	0	1	3
Yield (%)	0	0.12	0	0.16	0	0	0	0.34	0.67

Table 1. HSV-2 seroprevalence reported in various population groups worldwide.

Population group	HSV-2 antibody positive rate
Adults in general population	10-77%
Sexually transmitted disease clinic attendees	17-65%
Sex workers	75-96%
Antenatal women	Similar to general population

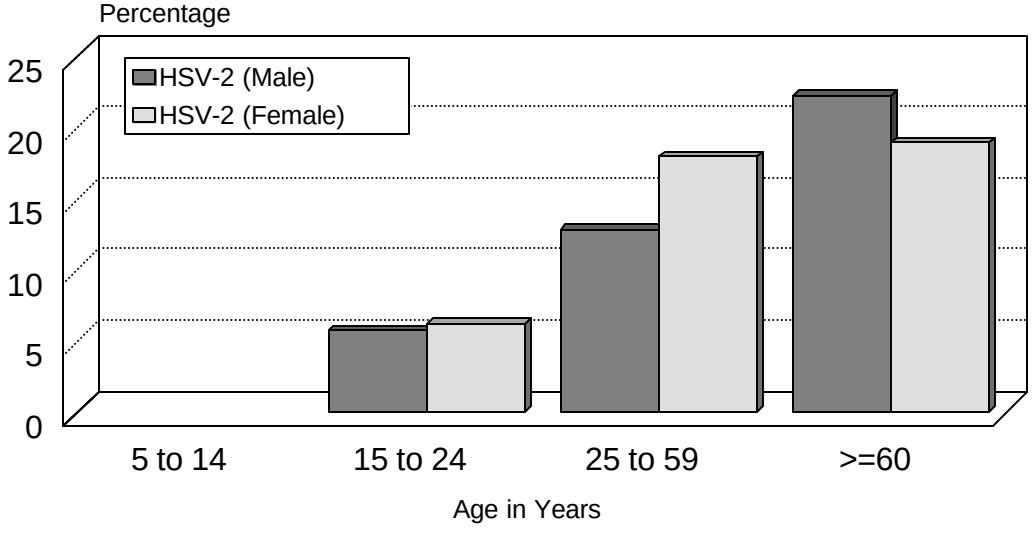
Table 2. HSV-2 seroprevalence in the general population in 1977 compared with 1995.

Patient group	Age range (year)	HSV-2 antibody (1977)	HSV-2 antibody (1995)
Males	15-24	0%	5.7%
	25-59	0%	12.8%
	>=60	N/A	22.2%
Females	15-24	10.8%	6.2%
	25-59	6.7%	17.9%
	>=60	N/A	18.9%

Table 3. HSV-2 seroprevalence in various population groups in 1995.

Patient group	Age range (year)	HSV-2 antibody positive rate
General population:		
Males	15-59	9.5%
Females	15-59	12.7%
STD clinic attendees:		
Males	15-65	24.3%
Females	15-79	35.5%
Sex workers	14-71	77.5%
IVDAs	14-63	26.7%
Antenatal women	13-39	10.2%

Figure 1. Herpes simplex virus type 2 seroepidemiology in the general population in 1995.



Epidemiology of Herpes Simplex Virus Type 2 in Hong Kong

Herpes simplex virus (HSV) infections are common worldwide. HSV type 1 (HSV-1) infections are acquired gradually from childhood, while antibodies to HSV-2 first occur in adolescents and the prevalence increases with age. Seroprevalence of HSV-1 has been reported to have a reciprocal association with the socioeconomic status of a locality while that of HSV-2 has been used as an indicator of the sexual behaviour of a population.[1] Seroepidemiological studies on HSV have been carried out in various populations worldwide as shown in Table 1 [2,3] on p.7.

Determination of the seroprevalence of HSV-2 in Hong Kong was carried out by the Government Virus Unit to provide an indication of the sexual behaviour of the local population.[4] The Western blot assay was performed on sera obtained in late 1995 from various population groups: general population, sexually transmitted disease (STD) clinic attendees, sex workers, antenatal women and intravenous drug abusers (IVDAs). Archived sera from the general population in 1977 were also tested.

Findings are illustrated in the Figure 1 and Tables 2 and 3 (p.7). The Figure 1 shows that HSV-2 seroprevalence rates in the general population (1995) increase steadily with age in both sexes. Furthermore, in the general population, an increasing trend in HSV-2 seropositivity from 1977 to 1995 can be observed (Table 2). The high HSV-2 seroprevalence rate in females in the age group of 15-24 years in 1977 probably signifies a change in sexual behaviour which occurred around that time in that age group. Table 3 shows that, in keeping with data reported worldwide, the HSV-2 seroprevalence in STD clinic attendees, sex workers and IVDAs are higher than that of the general population in Hong Kong. Such findings should alert to the recognition of these groups as being at risk for STDs. Appropriate preventive and control strategies should thus be targeted on these populations. Regarding antenatal women, the HSV-2 seroprevalence is, as expected, similar to the general population.

The increasing trend of HSV-2 antibody positive rate over the past 20 years warrants vigilance. These results will serve as baseline data for future comparison, enabling the formulation and evaluation of the effectiveness of STD preventive strategies, such as educational programmes for behavioural modification and the introduction of vaccines, a number of which are undergoing various stages of clinical trials. Continuous surveillance and prospective studies are necessary to detect any secular trends, which are likely to occur since the population of Hong Kong is highly mobile. In addition, evaluation should be performed on other groups at risk for STDs, such as inmates of correctional institutes,[5] so that preventive programmes may also be targeted on these groups.

1. Cowan FM, Johnson AM, Ashley R, Corey L, Mindel A. Antibody to herpes simplex virus type 2 as serological marker of sexual lifestyle in populations. British Medical Journal 1991; 309: 1325-1329.
2. Nahmias AJ, Lee FK, Beckman-Nahmias S. Sero-epidemiological and -sociological patterns of herpes simplex virus infection in the world. Scandinavian Journal of Infectious Diseases 1990; Supplement 69: 19-36.
3. Slomka MJ. Seroepidemiology and control of genital herpes: the value of type specific antibodies to herpes simplex virus. Communicable Disease Report 1996; 6: R41-45.
4. Lo JYC, Lim WWL, Ho DWT, Field PR, Cunningham AL. Difference in seroprevalence of herpes simplex virus type 2 infection among antenatal women in Hong Kong and southern China. Sexually Transmitted Infections 1999; 75: 123.
5. Centers for Disease Control and Prevention. HIV/AIDS education and prevention programs for adults in prisons and jails and juveniles in confinement facilities - United States, 1994. Morbidity and Mortality Weekly Report 1996; 45: 268-271.

(The above article is contributed by Dr Lo JYC)

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http://www.info.gov.hk/aids.

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