Hong Kong STD/AIDS Update

- a quarterly surveillance report

Department of Health Vol.6 No.4 October 2000

Editorial

Forty five HIV infections and 12 AIDS cases were reported in Hong Kong from July to September 2000. Among the newly reported HIV cases, 12 were female. The male -to-female ratio of HIV cases was 2.8 to 1. Over the years, there has been a steady increase of newly reported female infection. A majority of them were Asian non-Chinese which constituted 48% followed by ethnic Chinese (41.7%). The proportion of Asian non-Chinese female infection reported in this quarter was 50% which was comparable to the average figure (48%). This pattern was in contrast to the cumulative figures among male HIVcases who were mainly ethnic Chinese (75.2%) while Asian non-Chinese accounted for only 7.4%. Among all the female HIV cases, 53 had progressed into AIDS. A majority of the reported female HIV infections were in the sexually active age group with a mean age of 31.3 . The gender difference in the ethnicity profile may have implication for both governmental and non-governmental organisations on the focus of prevention and care needs of the ethnic minority groups in Hong Kong.

Cumulatively, the total number of reported HIV infections reached 1491 as at September 2000 and 487 had progressed to AIDS. A majority of the AIDS patients (88.1%) acquired the infection through sexual contact.

In this quarter, no injecting drug user or mother-to-child infection was reported. Of note, 3 new HIV cases were detected by the Hong Kong Red Cross Blood Transfusion Service (HKRCBT) in this quarter ,leading to a cumulative figure of 46 since 1986. The annual number of cases detected through blood screening was less than 2 cases per year before year 1991. However the number became stable at around 3 to 6 cases per year since 1994 . Efforts are needed to inform the public of the proper channel of voluntary HIV blood testing and the avoidance of giving blood for the purpose of testing. Readers may remember that in 1997, one case of HIV infection had occurred because of the transfusion of blood from a donor which was orginally tested negative during the window period.

Contents

Reported HIV/AIDS Quarterly Statistics

3rd Quarter (July - September) 2000

	This Quarter		Cumulative	
	HIV	AIDS	HIV	AIDS
Sex				
Male	33	9	1237	434
Female	12	3	254	53
Ethnicity/race				
Chinese	31	10	1036	376
Non-Chinese	14	2	455	111
Asian	*11*	*1*	*214*	*55*
White	*2*	*1*	*176*	*53*
Black	*1*	*0*	*14*	*2*
Others	*0*	*0*	*51*	*1*
Age at diagnosis				
Adult	45	12	1459	479
Child (age 13 or less)	0	0	32	8
Exposure category				
Heterosexual	31	10	854	311
Homosexual	6	1	293	92
Bisexual	1	0	75	26
Injecting drug user	0	0	28	8
Blood/blood product infusion	0	0	68	18
Perinatal	0	0	11	4
Undetermined	7	1	162	28
Total	**45**	**12**	**1491**	**487**

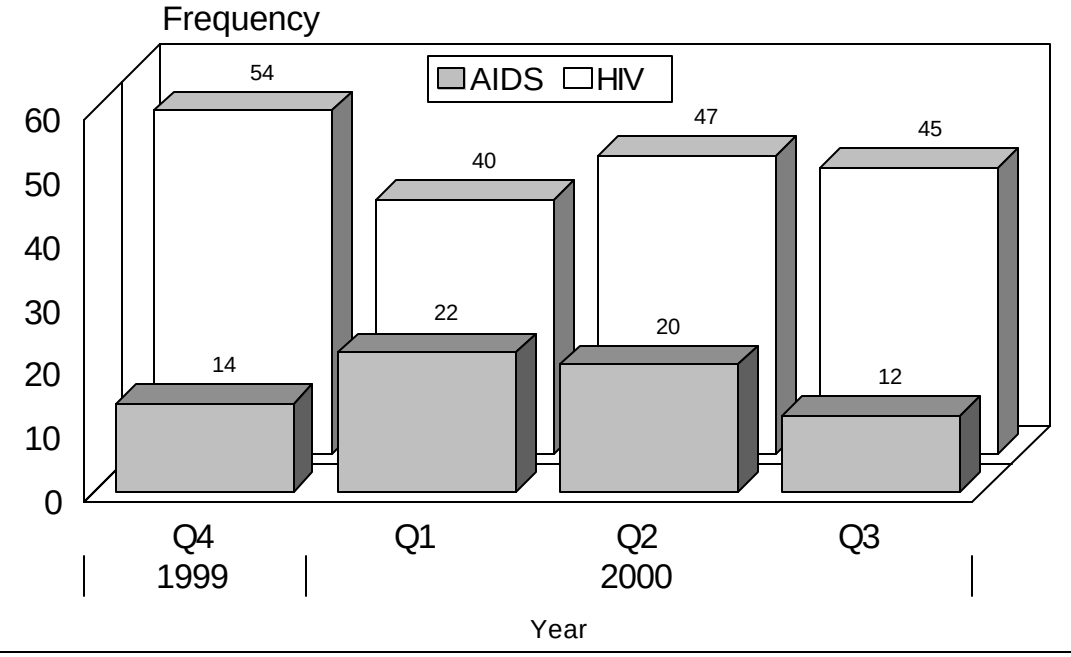
Sexually Transmitted Diseases Reporting at Government Social Hygiene Service

3rd Quarter (July - September) 2000

	This Quarter	Same Quarter Last Year
Syphilis		
Primary	79	79
Secondary	25	27
Early latent	91	71
Late latent	110	104
Late (cardiovascular/neuro)	0	0
Congenital (early)	0	0
Congenital (late)	2	1
Total	**307**	**282**
Gonorrhoea	882	866
Non-gonococcal urethritis (Male)	2059	2261
Non-specific genital infection (Female)	1710	1839
Genital wart	947	1017
Herpes genitalis	375	410
Pediculosis pubis	107	120
Trichomonas	265	212
Genital ulcer	244	182
Chancroid/Lymphogranuloma venereum	0	2
Others	897	809
Total	**7793**	**8000**

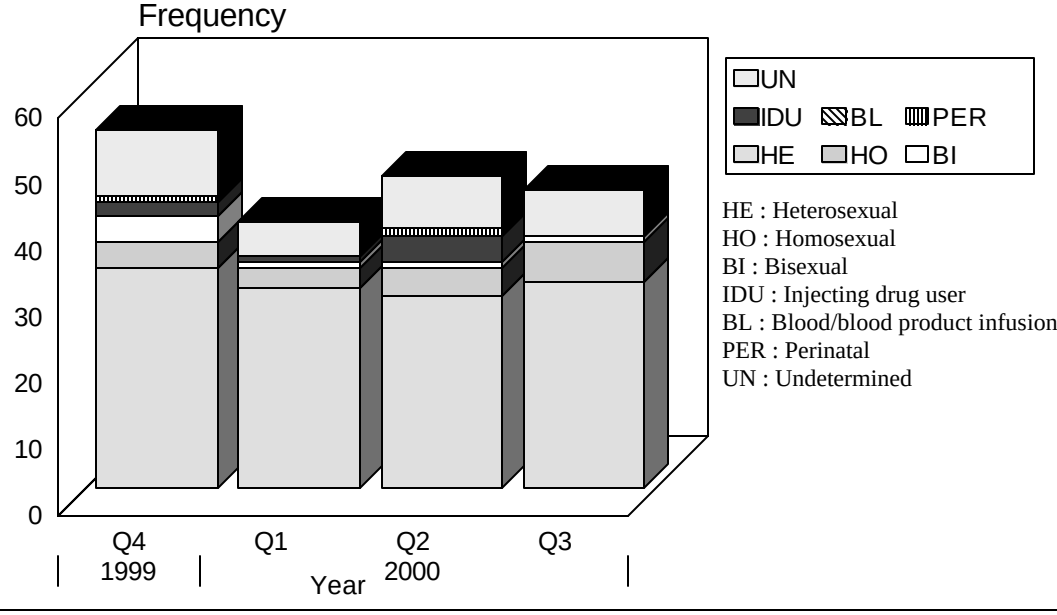
Hong Kong HIV/AIDS Voluntary Reporting

(3rd Quarter, 2000) Hong Kong



Hong Kong HIV Voluntary Reporting

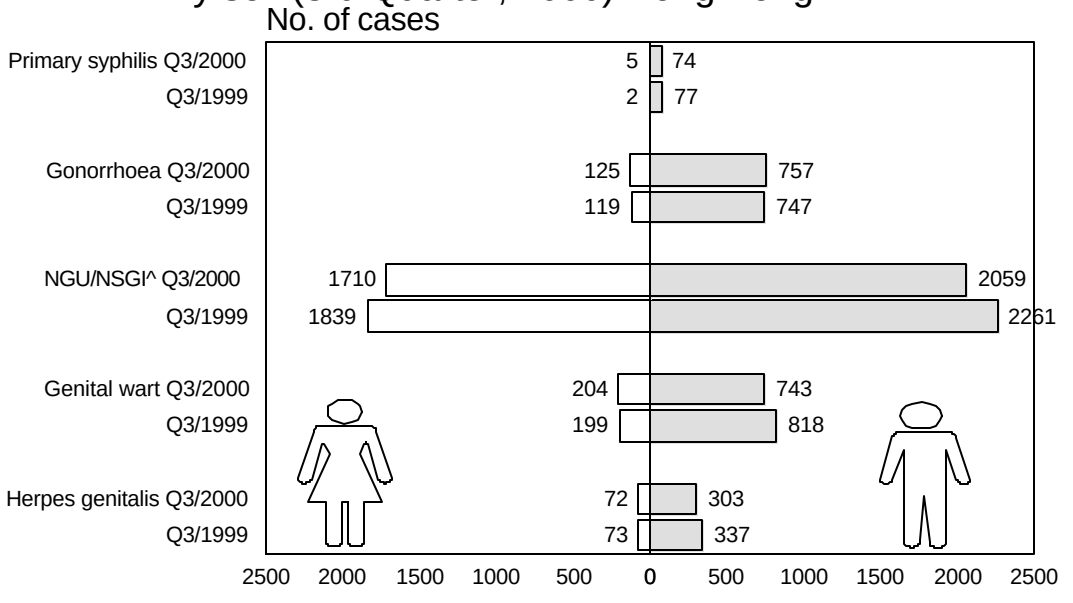
By Exposure Category (3rd Quarter, 2000) Hong Kong



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*

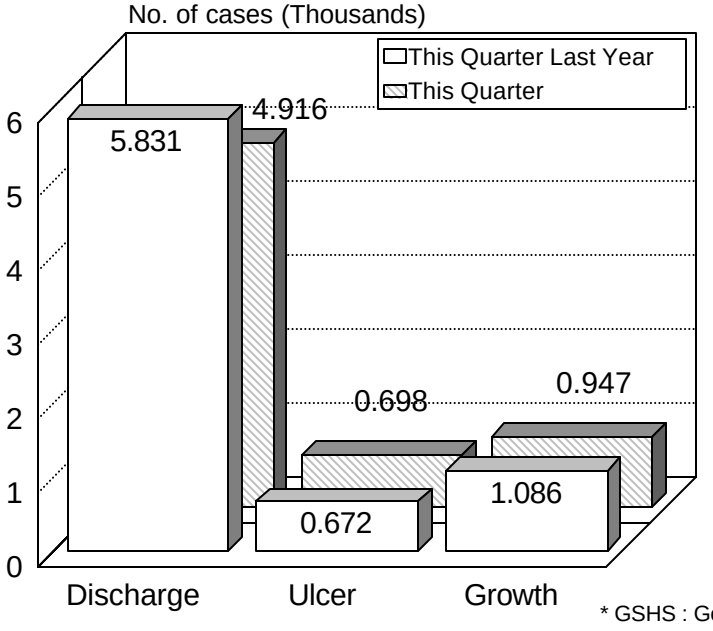
By sex (3rd Quarter, 2000) Hong Kong



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

Syndrome Presentations of STD in GSHS*

(3rd Quarter, 2000) Hong Kong



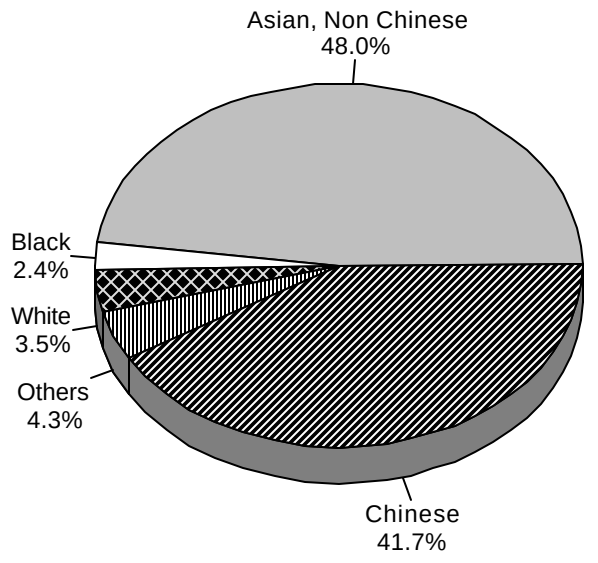
Diseases included under the various syndrome:

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

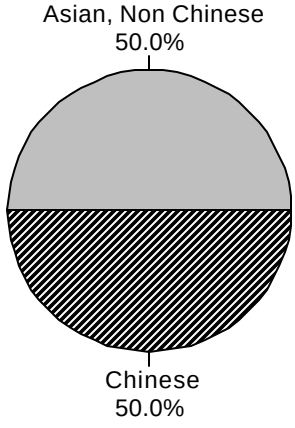
* GSHS : Government Social Hygiene Service

Ethnicity of reported Female HIV infection

1984 - September 2000, Hong Kong (N=1491)



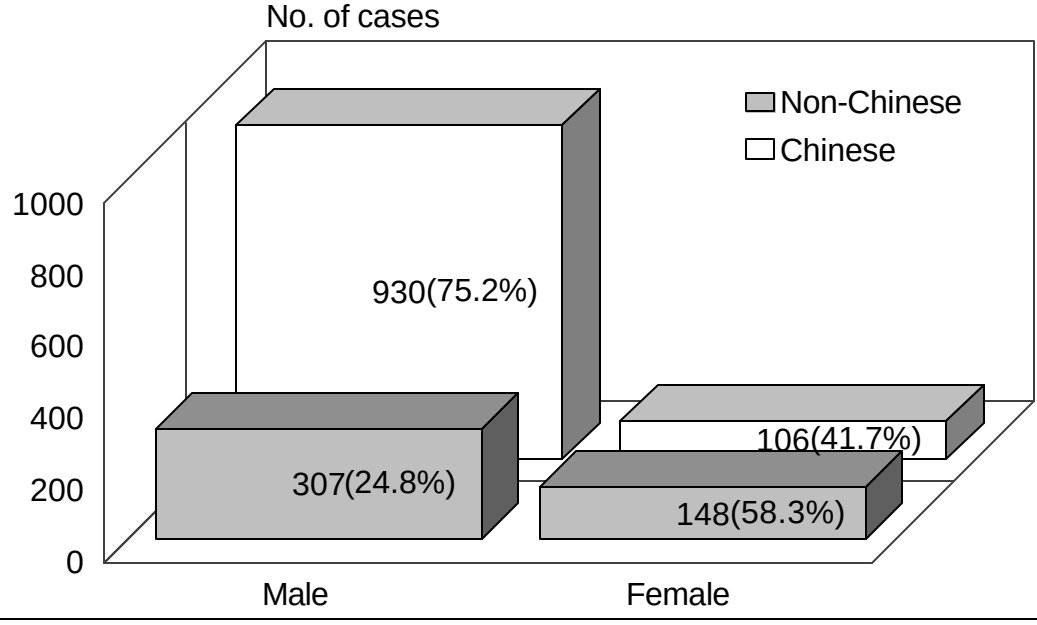
Over the years



This quarter
(Q3,2000)

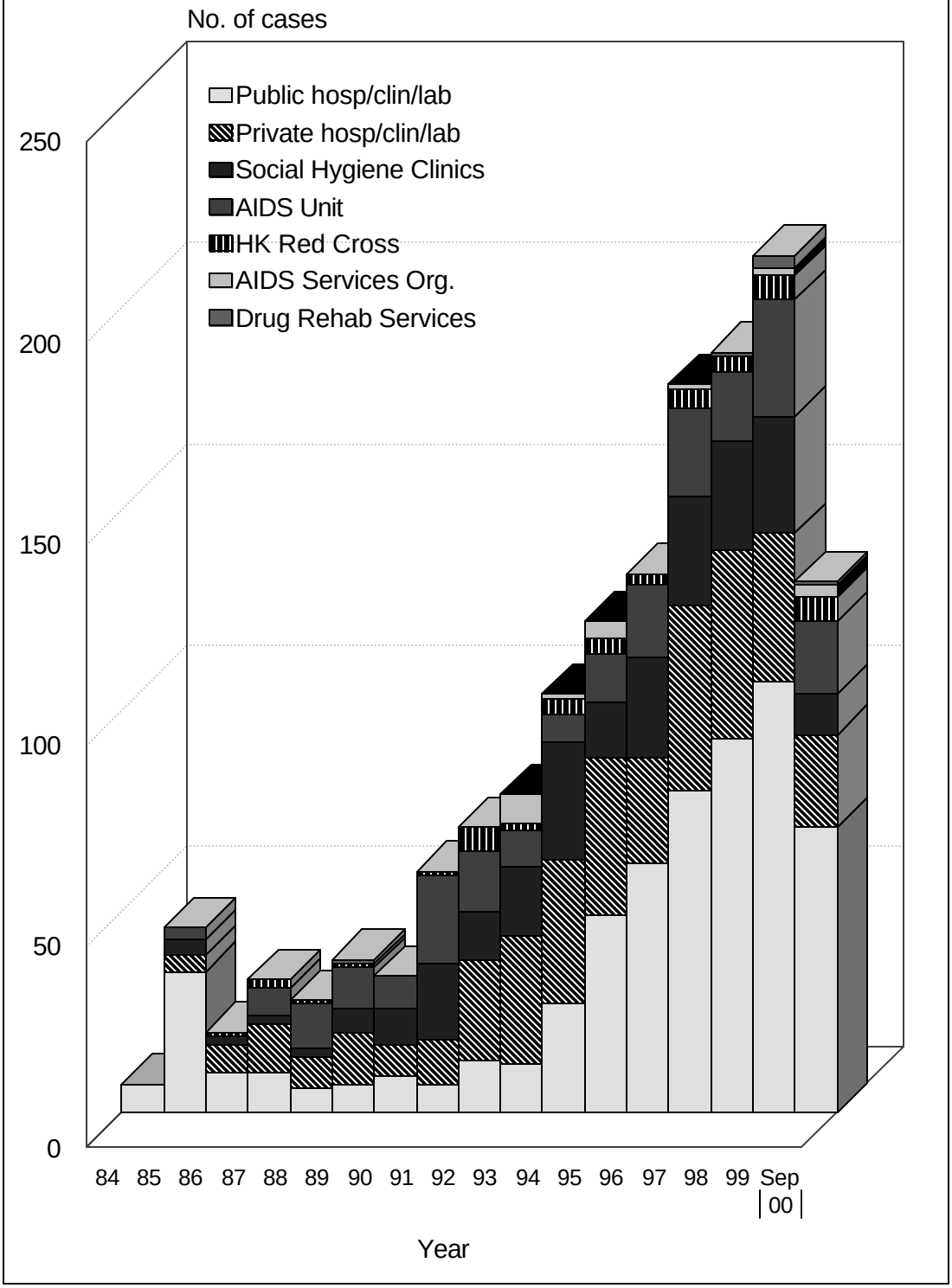
Ethnicity of reported HIV infection

1984 - September 2000, Hong Kong (N=1491)



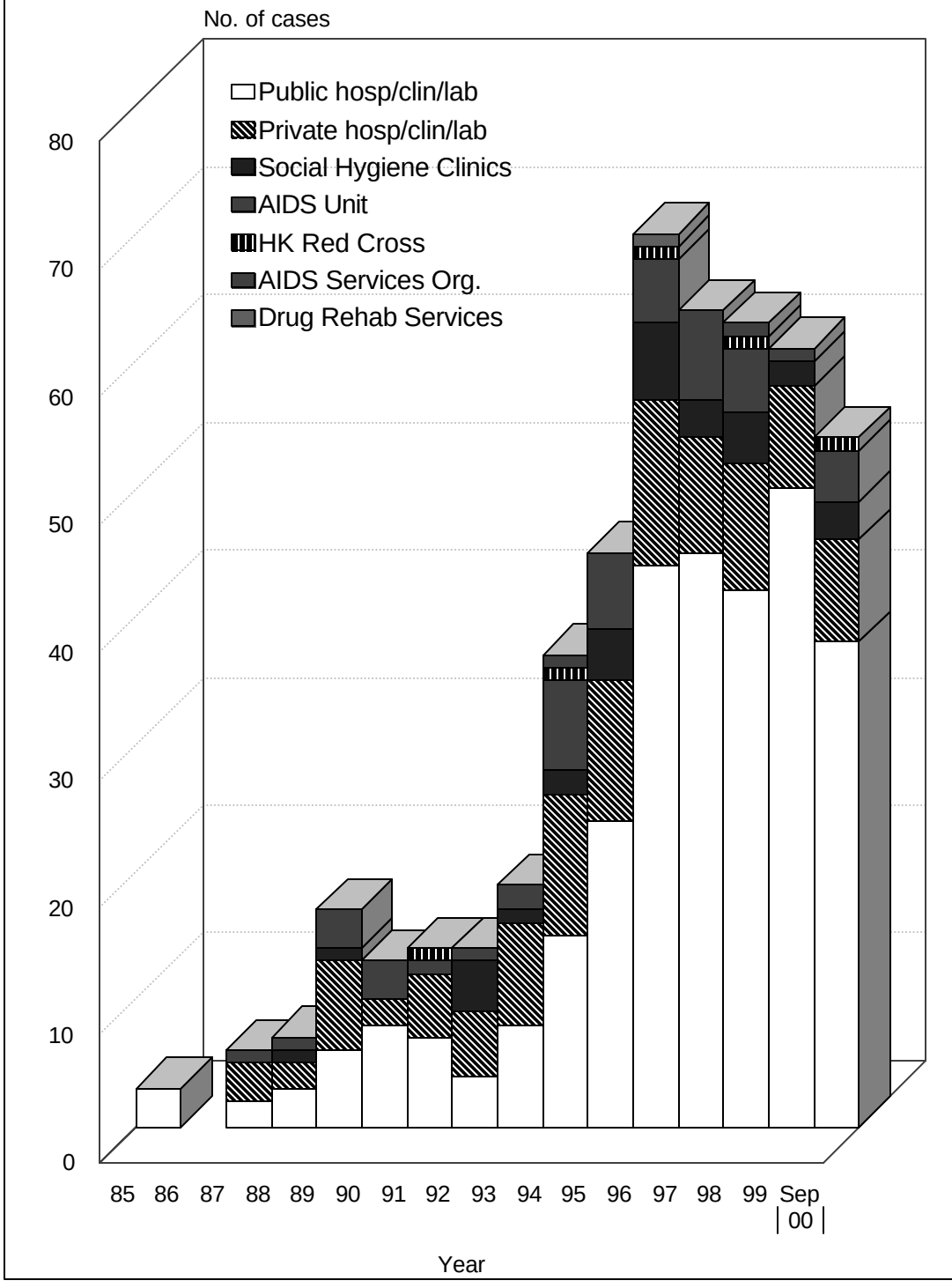
Source of referral of HIV infection

1984 - September 2000, Hong Kong (N=1491)



Source of referral of Reported AIDS

1985 - September 2000, Hong Kong (N=487)



An Update on Behavioural Surveillance

Introduction

Surveillance is the cornerstone of public health programmes on disease prevention and control. In the past, the term "surveillance" was often used to refer to the collection of information centering on people with the disease. The concept of case-based surveillance formed the basis of notification of communicable diseases, which was extended to include HIV/AIDS when the latter emerged about 20 years ago. The limitation of case-based HIV surveillance has led to the extensive use of serosurveillance and the monitoring of risk factors. More recently, the World Health Organization (WHO) and Joint United Nations Programme on HIV/AIDS (UNAIDS) proposed the introduction of "second generation surveillance" for HIV[1], involving the monitoring of biological, behavioural and sociodemographic indicators.

In Hong Kong, the HIV/AIDS surveillance has evolved along similar paths. The local system, currently coordinated by the Department of Health's AIDS Unit, is composed of four categories of activities, namely, (a) case-based surveillance through voluntary reporting, (b) serosurveillance, (c) sexually transmitted disease (STD) surveillance, and (d) behavioural surveillance. The last issue of the *Hong Kong STD/AIDS Update* had focussed on the results of the STD surveillance programme, updated as of the end of 1999. This issue is devoted to a review of the behavioural data.

Behavioural Surveillance Mechanisms

Conventional surveillance mechanisms suffer from the limitations of its narrow scope and the inattention to the underlying risk factors[2]. The introduction of behavioural surveillance could potentially serve as an early warning system, inform programme design, improve evaluation, and explain changes and variation in prevalence[3]. It is with these beliefs that AIDS Unit and Department of Microbiology, The University of Hong Kong, piloted a behavioural surveillance programme for HIV in 1994[4]. This has now become a regular programme of the AIDS Unit.

Currently the behavioural surveillance system is a collection of surveys coordinated by AIDS Unit. Some of the surveys have been specifically designed, whereas others are information derived from existing studies carrying a related objective. Nine markers have been selected for monitoring sexual and drug-taking behaviours – (a) age of sexual debut, (b) no. of sex partners, (c) history of commercial sex, (d) recent condom use, (e) condom use at last intercourse, (f) history of injection, (g) practice of needle-sharing, (h) needle-sharing at last injection, and (i) use of a clean needle. Currently not all markers are being regularly collected for the sentinel community groups recruited.

In behavioural surveillance, sentinel groups are defined by their practice of risk behaviors, rather than geographical distribution. It is noted that some community groups may not be accessible for behavioural monitoring. These sites are "virtual" in the sense that they are more conceptual than physical. Though the same markers are used, they are phrased in different ways, and are questioned using different methodology. Such degree of flexibility is necessary in order to support the implementation of the projects at the community level. Figure 1 shows the list of "virtual sentinel sites" recruited for behavioural surveillance, updated as of the end of 1999. It should be cautioned about drawing conclusion from the interpretation because of the experimental nature of methods involved.

Pattern of Sexual Behaviours

The monitoring of sexual behaviours involves the evaluation of both the intensity of sexual activities and the practice of unprotected sex in different community settings. The age of sexual debut is one indictor for the former. As a reference, the Family Planning association, in its survey of 1996, reported that 56% of boys and 61% of girls between the age of 14 and 17 had their first sexual experience[5].

The number of sex partners reflects the level of sexual activities. The currently available set of data is difficult to interpret (figure 2). The differentiation into casual, regular and commercial partner is a useful means of assessment in an intensive behavioural study. For surveillance purpose, this is hardly possible in view of the length of time involved, the variation in the interpretation of the questions, and the doubtful consistency of methodology when applied repeatedly by different interviewers. The only conclusion which could be drawn at this stage is that, of all groups surveyed, many have less than five sex partners in the three to twelve month period before the interview, with the exception of commercial sex workers.

A recent history of visiting commercial sex worker (CSW) can be viewed as an indicator of potentially unsafe sex. Figure 3 shows the longitudinal trend of the use of commercial sex in STD patients, people attending the AIDS Counselling Service, and members of the public interviewed as part of a series of studies conducted by the Community Research Programme on AIDS based at the Chinese University of Hong Kong. It is interesting to note that the index has fluctuated in each community group, partly as a result of the changes in the methodology applied over the years. In general, the rate of visiting CSW is higher in STD patients (80% to 90%), and is much lower in adult men contacted in a telephone survey (less than 20%) or male travellers at the Hong Kong – Mainland border (between 30% to 40%).

Condom use is knowingly a better indicator of the practice of protected sex. This is assessed by administering two questions – one on the consistency of condom use for sex over a defined period of time (three months to one year); and the other on its use for the last sex. This is illustrated in figure 4 and 5 for heterosexual men and figure 6 for men having sex with men (MSM). The frequency of condom use can be rated by asking the client if he has been using it every time (always), most of the time (usually), sometimes or never. We have found this four-level categorization useful and simple enough for consistent application. One who always or usually uses a condom is a "regular" user. Overall, more people use condom for commercial sex than for other sexual activities, a phenomenon seen also in other countries. The results over the years have been rather consistent within each community group. The different results with the two sentinel programmes on STD patients is methodological. As three instead of four level of condom use (always, sometimes and never) are adopted at the Social Hygiene Service, the result cannot be compared with those in the other surveys. The questionnaire is now in the process of being modified to achieve a higher degree of consistency. The results with MSM is more difficult to interpret. There is a generally rising trend of condom use in MSM using the service of the AIDS Counseling Service.

Pattern of Drug-taking behaviours

For the drug-taking community, the two most important markers are the practice of injection, and needle-sharing. Generally speaking, injection rate is a more reliable marker while the perceived meaning of needle-sharing may vary. Currently there are good sources of information to evaluate the practice of injection, ranging from the

dataset of the Central Registry of Drug Abuse (CRDA), surveys in methadone clinics (outpatient setting) and Shek Kwu Chau Drug Addiction Treatment and Rehabilitation Centre (inpatient setting) and a street survey conducted by the Pui Hong Self-help Association. Figure 7 shows the proportion of injectors in the drug users interviewed. It is highest in inpatients before their admission (about 80%) and lowest in methadone users (about 20%). The latter is similar to new drug users in the CRDA. This variation reflects the course of "graduation" from inhalation to injection in the lifetime of a drug user[6]. Over the years there has been a slight though notable decline in the proportion of injectors in all sentinel groups surveyed, except for new drug users in the registry.

Needle-sharing is not commonly practised in rehabilitating drug users on methadone (about 10%). The fluctuation may be an artifact in view of the relatively small number of clients who admitted to have injected. For those who opted for an inpatient treatment, practice of needle-sharing declined precipitously between 1992 and 1995 and has remained at below 5% in the last years. Street addicts represent those with an active habit of substance abuse. The rate of needle-sharing is higher, though this has also fallen from over 30% in 1992 to less than 20% in the last few years.

The Potentials and Pitfalls of Behavioural Surveillance

Have the behavioural surveillance data served the purposes of supplementing epidemiological information, explaining the HIV situation, and functioning as an early warning system? Currently, HIV surveillance is still largely restricted to the collection of prevalence data. Such data cannot be translated into accurate information on the spread (if any) of the virus because of the chronicity of the infection, and the lack of morbidity and incidence figures. The availability of behavioural data cannot fill these gaps. They could, to a certain extent, explain the HIV situation. The generally low rate of injection and needle-sharing may account for the low HIV prevalence in drug users. The relationship between sexual behaviours and HIV rates is more complex. The problems are: (a) behavioural data collected in, for example, STD clinics, cannot be easily extrapolated to the general population, (b) HIV may not spread in people practising high risk behaviours, if the virus is not present in the first place, and (c) prevalent data, like seroprevalences, is of limited use as it does not reflect the change which may have occurred. Understandably, the usefulness of any behavioural surveillance system is dependent on the access to the communities in question, quality of data collected, and the availability of longitudinal data.

Most people are interested in whether behavioural surveillance could act as a warning system, ahead of changes in biological HIV indicators. Theoretically this is possible, provided that (a) the behaviouiral surveillance system is set up in all possible sentinel sites, (b) a uniform mechanism of data collection and reporting is in place. These are rarely possible. Quantitative measurement of behaviours is still a relatively new science. It is natural that the interaction with the communities surveyed would affect the way behaviours themselves are reported, more so than that of quantitative seroprevalence studies.

Conclusion

The introduction of behavioural surveillance represents one step forward in our understanding of HIV epidemiology. The information presented in this paper explains, to a certain extent, the HIV situation as reported in other components of the surveillance system. This experimental process of appraising the HIV risk of the Hong Kong

population demands our constant review as regards its contents, sentinel communities involved and the methodology. Through reporting regularly, say, on a yearly basis, it is possible that the original goals of behavioural surveillance could eventually be achieved.

References

[1] World Health Organization (WHO) and Joint United Nations Programme on HIV/AIDS (UNAIDS). *Second Generation surveillance for HIV: the next decade*. Geneva: WHO/UNAIDS, 2000.

[2] Joint United Nations Programme on HIV/AIDS (UNAIDS). *Reaching regional consensus on improved behavioural and sero-surveillance for HIV: report from a regional conference in East Africa*. Geneva: UNAIDS, 1998.

[3] Joint United Nations Programme on HIV/AIDS (UNAIDS) and Family Health International (FHI). *Meeting the behavioural data collection needs of national HIV/AIDS and STD programmes – a joint IMPACR/FHI/UNAIDS Workshop report and conclusion*. UNAIDS & FHI, 1998,

[4] Special Preventive Programme, Department of Health and Department of Microbiology, The University of Hong Kong. *Assessing HIV risk in a population*. Hong Kong: Department of Health, 2000.

[5] Press kit presented by the Family Planning Association at the "Seminar on Youth Sexuality" on 31 May 1997.

[6] Hollinrake JB. Drug abuse, risk behaviours and HIV infection – a Hong Kong perspective. In: Lee SS and Chan CW. (eds) *The first decade of AIDS in Hong Kong – a collection of essays*. pp. 145-154. Hong Kong: Advisory Council on AIDS, 1999.

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Figure 1 : Virtual Sentinel Systems

CODE	SENTINELS	TARGETS
ACS(a) & (b)	AIDS Counselling Service*	(a) adult men; (b) MSM
SH1 & 2	Social Hygiene Clinics* (1:interviewer- ; 2:staff-adminsitered)	Adult men (heterosexual); female CSW
CRPA-H and -T	Community Research Programme on AIDS (H:household; T:travellers)	Adult men
DRS-M & -S	Drug rehabilitation services* (M:methadone users; S:SKC)	Drug users
SAS	Street addicts survey	Drug users
CRDA	Central Registry of Drug Abuse	Drug users
CSD	Prison inmates survey*	Adult men, ex-drug users

*affiliated with the ASSR1 Project

Figure 2 : Median Number of Sex Partners

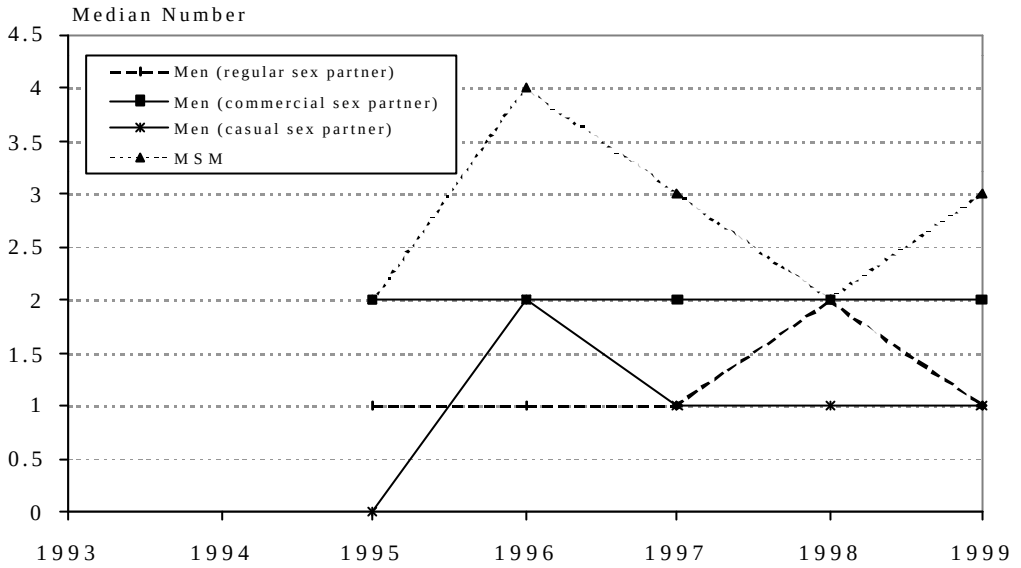


Figure 3 :Recent History of Visiting Commercial Sex

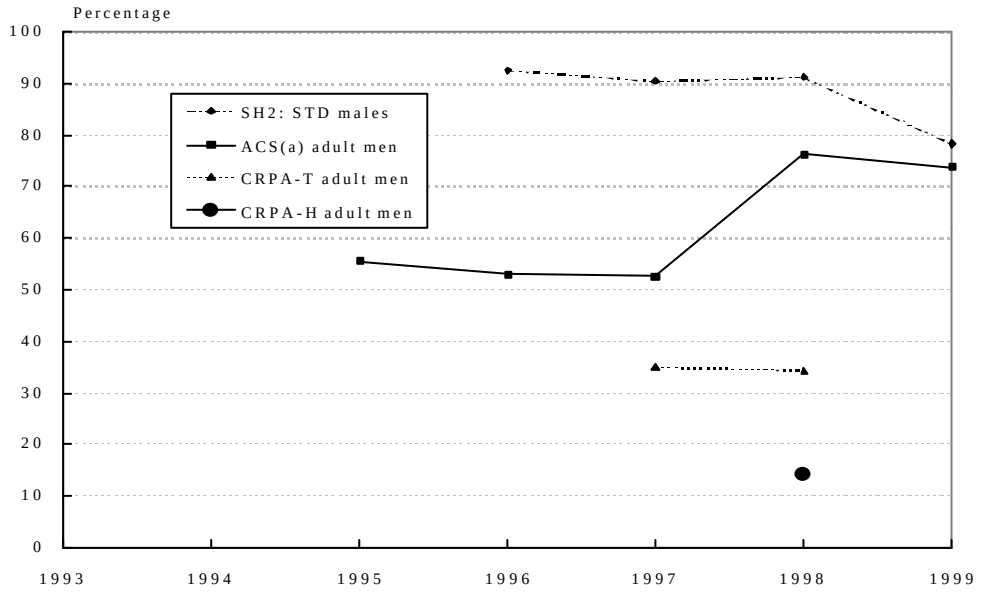


Figure 4 : Regular Condom Use in Heterosexual Men

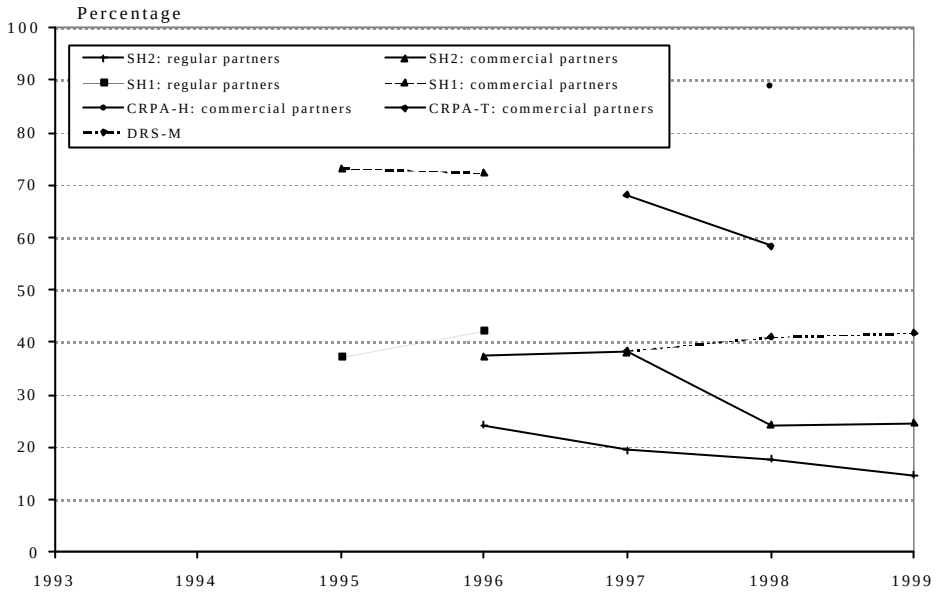


Figure 5 : Condom Use for Last Sex in Heterosexual Men

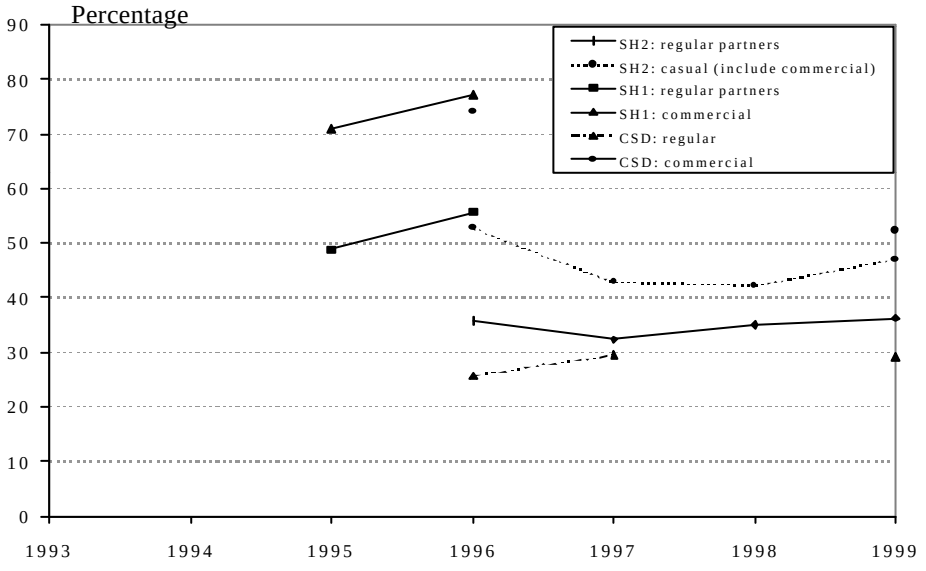


Figure 6 : Condom Use among Homosexuals attending AIDS Counselling Service

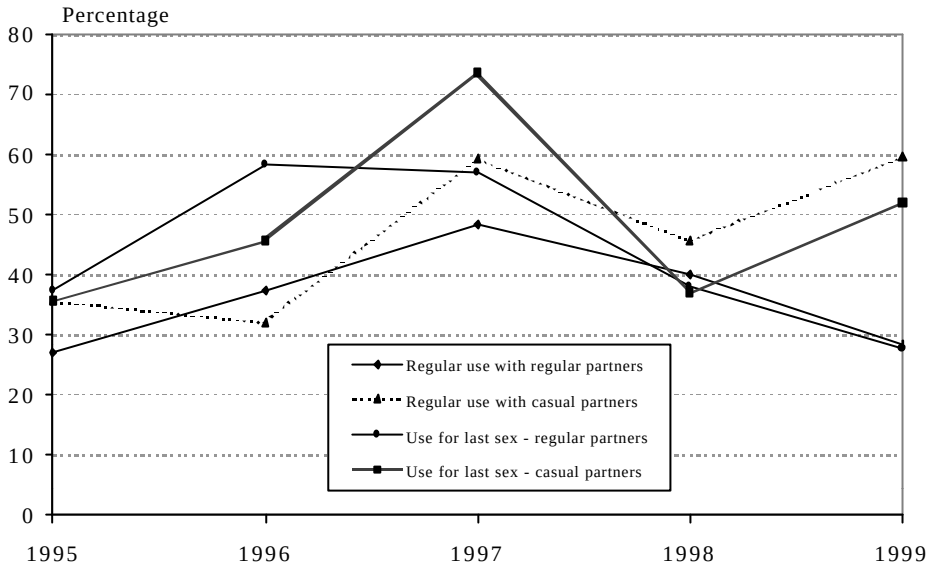


Figure 7 : Proportion of Injectors

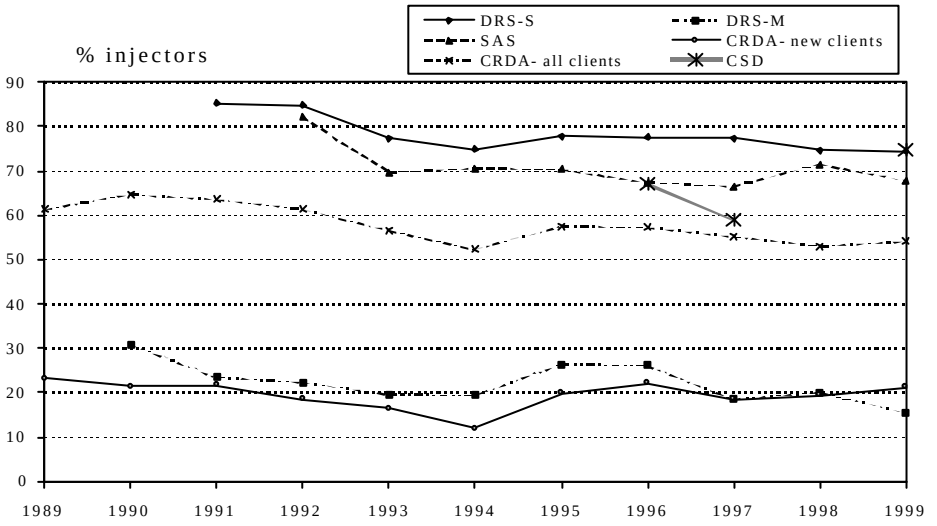
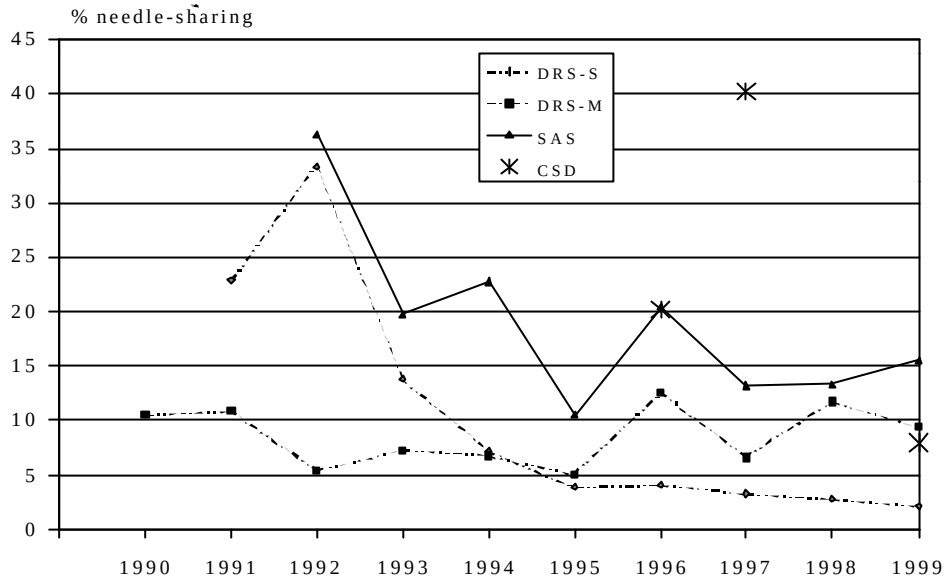


Figure 8 : Proportion of Needle-sharers



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

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