HIV SURVEILLANCE REPORT – 2003 UPDATE

Special Preventive Programme Centre for Health Protection Department of Health Hong Kong Special Administrative Region November 2004

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This revised version superceded the previous one.

ERRATUM: Figure in page 53, no. of urine samples tested on 2003 should be 564 instead of 1276.

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PREFACE

Two decades since the HIV epidemic took root in Hong Kong, the year 2003 bears special meaning in the history of infectious disease, both locally and globally. The unprecedented SARS epidemic, which claimed the lives of almost three hundred Hong Kong people, has opened up a new era in our response to infections in the modern world. Relating to HIV epidemiology, it would be intriguing to know what has happened when AIDS met SARS. As described in this *report*, fewer HIV tests were performed, so were the number of HIV reports received. Fewer STIs were diagnosed in Social Hygiene Clinics and fewer condoms distributed. Yet, the pattern of safer sex practice was not too different among clients of STI clinics or AIDS Counselling Serivce (as reflected from level of condom use obtained from different sources). Trying to attribute all these to SARS, however, remains a speculation. In the same year, the first case of HIV/SARS co-infection was reported¹.

Documentation and dissemination of the updated trends on HIV/AIDS situation to those who need to know is the aim of this *third annual surveillance report on HIV/AIDS*, an initiative of Special Preventive Programme (SPP) of the Department of Health, Centre for Health Protection. Following a commentary, data collected from the four main components of our surveillance programme (the HIV/AIDS voluntary reporting system, serosurveillance studies, Social Hygiene Service caseload statistics and risk behaviour studies) are presented in form of tables and graphs. This time, we include also the number of tests performed by the Department of Health Government Virus Unit to show the decrease in HIV tests during the SARS period (p. 13). A new section on the statistics of condom distributed to various services and agencies collated by SPP over the past years is added in Appendix III in this report. We supplement the data on voluntary HIV testing at the government TB & chest clinics with the coverage expressed in terms of the total annual number of TB notifications (Box 3.6b).

Electronic copy of this report is accessible in our website <u>www.aids.gov.hk</u>, so are the quarterly bulletins and other information relating to HIV surveillance and epidemiology. To improve our work, your comments and feedback would be most welcome always.

Surveillance team Special Preventive Programme Centre for Health Protection Department of Health November 2004

ⁱ SARS was reported to occur in a 30-year old Chinese HIV positive patient. He was described to run a mild course of disease, suspected to be related to lower level of immunity and the use of an antiretroviral drug, Kaletra. Wong T.Y., Tsang T.Y & Wong K.H. et al. Coronavirus infection in an AIDS patient. AIDS.2004;18(5):829-830

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The synthesis of this report is only made possible with the concerted efforts contributed by many people. First and foremost, we must thank our colleagues of the Social Hygiene Service, the Methadone Maintenance and Treatment Programme and the Government Virus Laboratory of the Department of Health who have provided the necessary information over the years. For data collected in the prison setting, we are indebted to the staff of the Correctional Service Department for their invaluable assistance in carrying out HIV risk behaviours questionnaire surveys and prevalence studies on a regular basis.

Next come the many agencies including the Hong Kong Red Cross Blood Transfusion Service, the Society for the Aid and Rehabilitation of Drug Abusers, the Narcotic Division of the Security Bureau, the Department of Microbiology of the University of Hong Kong, the Centre for Epidemiology and Biostatistics of the Chinese University of Hong Kong and many of our local AIDS non-governmental organisations which have helped collect and update the relevant statistics referred by this report.

Finally, this update would not have been possible without the usual excellent support from the SPP staff in terms of collating and compiling the information as well as the design and production of the report.

1. SUMMARY REVIEW

Background

1. The HIV/AIDS surveillance system comprises four main programmes to provide a detailed description of HIV/AIDS situation in Hong Kong. They are (a) voluntary HIV/AIDS reporting; (b) seroprevalence studies; (c) STD caseload statistics; and (d) behavioural studies. These data are collected and analyzed regularly by staff of the Surveillance Office of Special Preventive Programme (SPP), Department of Health, Centre for Health Protection. At present, data from HIV/AIDS reporting and STD surveillance are released quarterly in electronic format (*STD/AIDS Update* accessible at www.aids.gov.hk), while data from all sources are compiled and analyzed annually; the result of which is published in this yearly report.

2. The following paragraphs highlight the main findings from HIV/AIDS surveillance activities undertaken in 2003. Please refer to the following pages for descriptions of the programmes.

HIV/AIDS reporting system	p. 19 - 20
Seroprevalence studies	p. 43 - 44
STDs caseload statistics	p. 57
Behavioural surveillance	p. 65 - 66

Hong Kong: a low HIV prevalence area

3. Summary statistics of HIV situation as of the end of 2003 is shown in the box beside. The Department of Health received 229 HIV infection and 56 AIDS reports in 2003, a 12% drop in HIV reports and a 7% increase in AIDS reports when compared to figures of the previous year. The cumulative totals have reached 2244 for HIV reports and 669 for AIDS reports respectively. Hong Kong remains a HIV low prevalence city with the population seroprevalence below 0.1%.

Three quarters of HIV reports are from men, majority of them acquired the infection sexually.

4. In year 2003, one hundred and seventy-five HIV reports were from men, accounting for 77% of all reports and

HIV surveillance at a glance (2003)

- 229 HIV reports & 56 AIDS reports
- Gender: 75% men
- Ethnicity: 75% Chinese
- Age: median 36, 1/6 older than 54
- Risks:

.

- 50% heterosexual contact
- 21% homo/bisexual contact
- 4% injecting drug use
- 25% undetermined
- CD4 at reporting:
- Median 171 cells/µl, 70% < 200 cells/µl
- Subtypes: commonest are CRF01_AE & B
- Primary AIDS defining illnesses: commonest are PCP, TB and penicilliosis
- Seroprevalences
 - blood donors: 0.003%
 - antenatal women: 0.02%
 - attendees at STI clinics: 0.08%
 - attendees at methadone clinics 0.02-0.05%

representing a 13% drop from last year's figure of 201 cases. The male to female ratio was 3.2:1, the same as the mean of that of the previous 5 years. About three quarters of these reports were believed to have been transmitted sexually, one fifth with risk 'undetermined', and 6% through injecting drug use. This means that sexual transmission has accounted for more than 90% of the HIV reports with identified risks.

<u>Almost 40 % of the sexually transmitted HIV reports from men indicated homosexual /</u> <u>bisexual (MSM) contact as the risk factor.</u>

5. Both heterosexual transmission and homosexual/ bisexual men (MSM) contacts are important risk factors for HIV infection in men (Box 1.1). An increasing trend of MSM infected with HIV has been observed with the ratio of heterosexual against MSM dropping from its peak of 4.1:1 in 1998 to 1.7:1 in 2003 (Box 2.7c). An increase of MSM reports from younger age group compared to an



increase of heterosexual men in the older age group have been noted (Boxes 1.2 & 1.3). Over 80% of the infected men were Chinese.



6. Box 1.4 shows the distinct patterns of sources of HIV reports from heterosexual men and MSM, a clue to the difference in health seeking behaviour among heterosexual men and MSM. Majority of HIV infections in heterosexual men were referred from public laboratories/ clinics/ hospitals (48%), followed by social hygiene clinics (21%). Whereas for sources of MSM reports, the commonest were private sectors (31%) and AIDS Counseling Service (SMC) (26%). SHC and SMC provide convenient sentinels for conducting other related surveillance activities, even though a mixed group of people at risk of HIV infection is captured, both in term of gender and exposure risk.



7. In 2003, more than 43,000 HIV tests have been performed on blood samples of attendees at Social Hygiene Clinics and 34 were found positive. The prevalence was low at 0.08%, similar to that in the past years (Box 3.2). Behavioural monitoring showed a steady pattern of condom use among SHC and SMC clients. Sixty percent of heterosexual men attending SHC reported regular (often or always) use of condom with casual/ commercial

partners in the previous year, while that for regular partners was lower at 30%. The corresponding figures for SMC were 80% and 60%.

8. Hong Kong Red Cross Blood Transfusion Service has continued to be a setting where HIV infection was diagnosed. A total of 60 HIV cases have been reported from blood donors over the past two decades with 4 to 7 cases every year recently. Ninety percent were men and all were sexually transmitted cases with heterosexual contact accounting for 60% and MSM 40%.

One in six HIV reports came from people older than 54 years old, of which 90% were men.

9. The median age at HIV reporting was 36 (interquartile range 31-45), and an increasing trend of HIV reports from people of older age has been observed (Box 1.5). The proportion of HIV reports from people older than 54 years old accounted for 8.4% of the cumulative HIV reports. It has increased from around 5% ten years ago to 14% in 2003, with the annual



absolute number of cases increased from single digit to 32 cases in 2003. If the cut-off was taken as 65 years old, the corresponding proportion increased from <1% in mid 1990s to 5% in year 2003. Among these reports from people older than 54 years old in 2003, majority were male (88%) who contracted the virus through heterosexual contact (71%), otherwise with unknown risk factor. The median CD4 level at reporting was 89 cells/µl (Box 1.9), and 34% reported to have AIDS within 3 months of HIV report (compared to 18% only for reports from people younger than 54).

A decrease of reports from public sources during SARS

10. A shift in the distribution of sources of HIV reports was noted in the year 2003 (Box 1.6). There was a 33% drop of reports from AIDS Counselling Service (SMC) (33 cases, 13% of annual reports in 2002 *vs* 22 cases, 10% of annual reports in 2003), 17% drop from public clinics/ hospitals/ laboratories (132 cases, 51% *vs* 109 cases, 48%) and 17% drop from Social Hygiene Clinics (41 cases, 16% *vs* 34 cases,



See Box 1.4 for legend

15%). In contrary, an increase in reports was noted in drug rehabilitation services (0 case in 2002 *vs* 10 cases, 4.4% in 2003), which was contributed by pilot testing of the universal HIV testing programme in methadone clinics (see paragraph 16-17). The numbers of reports from private hospital / clinics / laboratories, Hong Kong Red Cross Blood Transfusion Service and AIDS service organizations have remained similar.

11. The decrease in reports from AIDS Counselling Service, public clinics/ hospitals/ laboratories and Social Hygiene Clinics paralleled the decrease in number of tests performed, most notably during the period (SARS cases were reported between March and June) when Hong Kong was hard hit by the unprecedented SARS epidemic.ⁱⁱ The total number of HIV tests performed by Department of Health was 77397 during 2003, representing a 14% drop as compared to the 89665 tests in 2002. As shown in Box 1.7, the decrease was most notable from March to April during which the monthly number of tests referred by the Department of Health AIDS Unit dropped from more than 150 tests to below 100, and in Social Hygiene Clinics from more than 4000 to 2600. The situation only slowly reverted to the pre-SARS period in the last quarter of the year.



ⁱⁱ A total of 1755 SARS cases were reported between March and June 2003 in Hong Kong, claiming a total of 299 lives. A travel alert was issued on 15 March 2003 and a travel advisory on 2 April by the World Health Organization. The later was removed on 23 May and Hong Kong was declared SARS free one month later. According to US CDC, SARS seems to spread mainly by close person-to-person contact. The virus is thought to be transmitted most readily by respiratory droplets. It is possible that the SARS virus might spread more broadly through the air (airborne spread) or by other ways that are not known.

At least one third of HIV diagnoses were made at a late stage, and a quarter presented with AIDS. Two thirds of the primary AIDS defining illness (ADIs) were PCP & tuberculosis.

12. Reporting of CD4 level at HIV diagnosis and number of AIDS reports provide useful information on timing of diagnosis in the course of HIV infection. Sixty-six percent of HIV cases in 2003 reported the CD4 level at diagnosis (Box 1.8). This drop from 77% in 2002 could

Box 1.8 Reported CD4 levels at HIV diagnosis													
Year	Number of HIV reports	Numb repo	er of CD4 orts (%)	Median CD4 (cell/µl)	CD4 >= 200 (cell/µl) (%)								
1999	213	116	(54.5)	149	53	(24.9)							
2000	183	127	(69.4)	97	52	(28.4)							
2001	213	158	(74.2)	223	82	(38.5)							
2002	260	199	(76.5)	197	98	(37.7)							
2003	229	151	(65.9)	170	71	(31.0)							

be related to a relatively higher proportion of reports from private clinics and drug rehabilitation services where tests for CD4 count were less readily performed.

13. A 14% drop in median CD4 level at time of reporting is noted in
2003. This could be due to firstly, a larger proportion of people with lower CD4 being reported or secondly, a larger proportion of them with

Box 1.9 CD4 reports by age group													
Year	Age	Number (*	of reports %)	Median CD4 (cell/µl)	% of CD4 >= 200 (cell/µl)								
2001	<55	142	(90)	54									
	55	16	(10)	96	38								
2002	<55	181	(91)	196	50								
	55	18	(9)	213	50								
2003	<55	126	(83)	178	48								
	55	25	(17)	89	40								

the CD4 level determined. In 2003, there was an increase in HIV reports from people in the older age group (14% aged 55) (associated with a decrease in CD4 level), which were over-represented (17%) among those with CD4 reports (Box 1.9). Another cause would be a decrease in HIV tests performed among asymptomatic but infected people (possibly related to SARS), as reflected in the HIV:AIDS reports ratio, which decreased from 4.9:1 in 2002 to 4.1:1 in 2003 and the proportion of late presenters (see below).

14. AIDS reports have stabilised at around 50-60 each year, in contrast to the decrease in number of HIV reports in 2003 during SARS. Among the 56 AIDS reports, fifty-one of them (91%) had the HIV infection reported in no more than 3 month prior to AIDS reporting, meaning that most of the AIDS cases had the HIV infection diagnosed late in the course of illness (late presenters) and the proportion was similar to that of previous years. The proportion HIV reports with progression to AIDS within 3 month has increased slightly from 20% (52 in 260 cases) in 2002 to 23% (51 in 226 cases) in 2003.

15. The pattern of primary ADIs was similar from that of past years. Pneumocystis pneumonia caused by pneumocystis jirovechi was still the commonest ADI, accounting for 39% of all reports (decreased from 47% in 2002). A rise in tuberculosis as ADIs was observed from nine cases (17%) in 2002 to 15 cases (27%) in 2003 to. There was one case of Kaposi Sarcoma reported in 2003 since its last reports in 1997. The patient was an African man, with HIV infection and later death reported in the same year. There were three cytomegalovirus infections reported after a year of nil report (Box 2.9).

Less than 1% of drug users tested HIV positive at methadone clinics. HIV infection in drug users, though much less prevalent than that of nearby cities, is a potential source for substantial HIV spread

16. About five percent of HIV cases reported injecting drug as risk for contracting the infection over the past years. In 2003, eleven (5%) were thought to have contracted the infection through injecting drug use (IDU), ten were men and nine Chinese. Six had the diagnoses made at methadone clinics and two at Social Hygiene Clinics. A change in the profile was noted as compared to the cases reported in 2002 when none were from methadone clinics nor social hygiene clinics (all from public clinics/hospitals/laboratories, Box 1.6), and only four of the ten cases were Chinese (six were non-Chinese Asians). This is contributed by the cases detected at the three-month pilot of a universal HIV testing programme in

methadone clinics in 2003 (see below).

17. In the programme, HIV tests using urine specimens were offered routinely to each client attending the methadone clinics during the three-month testing period. The high number of attendees at one of the

Universal HIV testing in methadone clinics (Pilot)

Period: July to September Number of methadone clinics: three Number of tests done: 1834 Number of positive tests: 9 Seroprevalence: 0.5% (95 C.I. 0.22%-0.93%)

clinics necessitated some of the tests to be performed beyond the testing period to maximize the coverage. Patients were allowed to refuse the test. Overall, the trial led to an increase of 2000 HIV tests and added a total of 10 cases newly diagnosed at methadone clinics. All of them were Chinese men who reported to have contracted the infection through IDU (6), sexual contact (2), and with risk undetermined (2).

18. Results of surveillance activities otherwise targeting drug users were similar to data of the past years. Seroprevalence from unlinked anonymous screenings performed in 2003 was 0.26% (95% C.I. 0.03% - 0.1%) (Box 3.3a), similar to that of 2002. The higher seroprevalence obtained during the pilot study was probably due to the variations in prevalence among methadone clinics. Proportion of injectors and needle sharers were stable (Boxes 5.8 & 5.9).

19. HIV prevalence among IDUs is high at 5 - 10% in some nearby cities such as Guangzhou and Jiangmenⁱⁱⁱ. With large volume of people traveling between Hong Kong and neighbouring cities, the potential risk for explosive increase remains with us in Hong Kong.

HIV prevalence among women has remained low. No perinatal HIV infection has been reported since 2000.

20. HIV prevalence among antenatal women is a convenient surrogate for the situation in women and the population in general, if the testing coverage is high. In 2003, more than 36,000 tests were performed on 97% of the women attending the public service for antenatal care. Six of the mothers were tested positive, giving a seroprevalence of 0.02%. There has been no perinatally transmitted case since the last report in 1999.

21. Overall, women accounted for a quarter of all HIV reports. Heterosexual route of transmission is the single most common risk factor reported. Unfortunately, reporting is becoming increasingly incomplete with more reported cases having no specified risk factor for the infection (Box 1.10).



The commonest HIV subtypes were CRF01_AE and B. An increased in subtypes diversity was noted.

22. About 90% of the HIV reports in 2003 had their subtypes documented in a project jointly conducted by The University of Hong Kong and The Department of Health. Slightly less than one half of the results belonged to subtype CRF01_AE and about a quarter subtypes B. A gradual increase in subtype C was observed. It accounted for about 10% of the cases.

	20	001	20	002	2003						
Annual HIV reports	2	213	2	60	229						
Number of reports with subtypes identified (%)	83	(39)	228	(88)	202	(88)					
Subtype (%)											
CRF01_AE	49	(23)	122	(47)	98	(43)					
В	24	(11)	78	(30)	60	(26)					
С	5	(2)	15	(6)	21	(9)					
Others	5	(6)	13	(8)	23	(11)					
Others in 2003 include 07_BC(9), AG (4), 08_BC(3), A(2), B' (2), 01B(1), 06CPX (1) and A1 (1)											

ⁱⁱⁱ Third Workshop on HIV surveillance and epidemiology in Pearl Rived Delta Region. November 2002. Available at <u>www.info.gov.hk/aids/prd/3rd/index.htm</u>.

The CRF01_AE subtype was more common in female, Chinese, heterosexuals and injecting drug users, B subtype in male, white and MSMs, and C subtype in female, Asians and heterosexuals. An increase in diversity of subtypes and its recombinant forms was also noted (Box 1.11), indicating the maturation of the epidemic.

Conclusions

23. In 2003, we witnessed a significant drop of 12% in HIV reports. It is speculated that the SARS epidemic has led to fewer asymptomatic people going for HIV testing. The drops of reports from Chinese, heterosexuals and men were more notable. Such pattern, if persistent, would result in <u>late diagnosis</u> and an association with higher rates of morbidity and mortality.

24. <u>HIV infection among Chinese MSM</u> in the younger age group (20-40) continued to be one area of concern. Forty percent of the sexually transmitted HIV infection were reported from MSM, which is an over-representation considering that the overall prevalence of homosexuals in a society should not be higher than 10%. A local non-governmental organization has been providing an outreach testing service targeting MSMs since late 2002. Out of the 226 tests done in 2003, two were positive (prevalence 0.9% (95% C.I. 0.11 – 3.2)). The limited coverage of such mechanisms has made interpretation difficult.

25. Introduction of a universal testing programme (pilot) in three methadone clinics added ten HIV reports in drug users. Though the prevalence has remained low at 0.2-0.5% and drug use as risk factor for HIV infection constituted less than 5% of all the reports, the situation is likely to remain volatile. An increase in diagnoses of <u>HIV infection among drug users</u> is expected in the near future with increased testing from the universal testing programme that was rolled out to all methadone clinics in 2004.

26. An increasing number of reports with <u>incomplete data</u> is noted. One quarter of HIV reports in 2003 were with risk "undetermined" (17% in 1998) and 9% unknown ethnicity (0.5% in 1998). Most of these were reports from private clinics/ hospitals/ laboratories. The robustness of the reporting system in future would depend not only on the coverage of the system but also the completeness of data received. A thorough understanding of HIV epidemiology would continue to require an integration of multiple surveillance mechanisms, rather than a reliance of the reporting mechanism alone.

2. TABULATED RESULTS OF HIV/AIDS REPORTING

System description

• The HIV/AIDS reporting system is a case-based notification system conducted on a voluntary basis since 1984, with input from clinicians and laboratories.

System layout



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Box 2.1 Annual and cumulative reports of HIV/AIDS cases

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Box 2.2 Source of reporting of HIV/AIDS cases

(a) Year 2003



(i) HIV

(b) Cumulative (1984 - 2003)



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Box 2.3 Ethnicity & gender of reported HIV/AIDS cases

(a) Year 2003

Ethnicity				HIV			AIDS								
Ethnicity	1	Vale	F	emale	٢	Fotal		Male	F	emale	Total				
Chinese	135 (77.1%)		23	(42.6%)	158	(69.0%)	37	(84.1%)	8	(66.7%)	45	(80.4%)			
Asian	21	(12.0%)	17	(31.5%)	38	(16.6%)	4	(9.1%)	4	(33.3%)	8	(14.3%)			
White	9	(5.1%)	0	(0.0%)	9	(3.9%)	2	(4.5%)	0	(0.0%)	2	(3.6%)			
Black	3	(1.7%)	1	(1.9%)	4	(1.7%)	1	(2.3%)	0	(0.0%)	1	(1.8%)			
Unknown	7	(4.0%)	13	(24.1%)	20	(8.7%)	0	(0.0%)	0	(0.0%)	0	(0.0%)			
Total	175	(100%)	54	(100%)	229	(100%)	44	(100%)	12	(100%)	56	(100%)			

(b) Cumulative (1984 - 2003)

Ethnicity				HIV			AIDS								
Ethnicity	Ν	Male	Fe	emale	Total		1	Vale	F	emale	Total				
Chinese	1372 (75.7%)		185	(42.8%)	1557	(69.4%)	487 (84.5%)		36	36 (38.7%)		(78.2%)			
Asian	164	(9.1%)	195	(45.1%)	359	(16.0%)	30	(5.2%)	55	(59.1%)	85	(12.7%)			
White	195	(10.8%)	9	(2.1%)	204	(9.1%)	56	(9.7%)	0	(0.0%)	56	(8.4%)			
Black	17	(0.9%)	6	(1.4%)	23	(1.0%)	2	(0.3%)	1	(1.1%)	3	(0.4%)			
Unknown	64	(3.5%)	37	(8.6%)	101	(4.5%)	1	(0.2%)	1	(1.1%)	2	(0.3%)			
Total	1812	(100%)	432	(100%)	2244	(100%)	576	(100%)	93	(100%)	669	(100%)			

Box 2.4 Age distribution of reported HIV/AIDS cases

(a) Median age of reported HIV/AIDS cases

		HIV		AIDS						
Year	Median	Inter qua	rtile range	Median	Inter qua	rtile range				
	age	25%	75%	age	25%	75%				
1984	11	6	32							
1985	21	13.5	28.5	33	28	46				
1986	26	15	41							
1987	29	24	38.5	42.5	35.3	51.3				
1988	35	25.8	42.3	39	24	43				
1989	36	28	46	38	31.5	46.5				
1990	33	28	39	35	28.5	50.5				
1991	31.5	31.5 26		34	27	44				
1992	34	28	40	39	34.8	45.5				
1993	33	27	39	38	29	41				
1994	34	28	40	36	33	40.5				
1995	32	26	40	36	30	44.5				
1996	34	30	41.5	38	31.8	43				
1997	35	28.5	42	37	32	48				
1998	34	29	40	39	32	48				
1999	35	29	43	40	34	51				
2000	35	29	43	40	33	50				
2001	34.5	29	42	38	30.3	46.8				
2002	36 30		44	41	34	48				
2003	36 30.5		45	39	35	49.8				
Total	34	28	42	38	47					



(b) Age & gender of reported HIV cases (Year 2003)

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(c) Age & gender of reported AIDS cases (Year 2003)

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(d) Age & gender of reported HIV cases (cumulative, 1984 - 2003)

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(e) Age & gender of reported AIDS cases (cumulative, 1985 - 2003)

(f) Adults & children with reported HIV/AIDS in 2003

4.55		HIV		AIDS						
Age	Male	Female	Total	Male	Female	Total				
Adult	175	54	229	44	12	56				
Children (age <=13)	0	0	0	0	0	0				
Total	175	54	229	44	12	56				

Box 2.5 Exposure category of reported HIV/AIDS cases

(a) Distribution of reported HIV cases by exposure category (1984 - 2003)

Year Exposure Category (%)	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Heterosexual	1	0	0	3	6	11	12	29	32	47	73	81	93	117	132	127	115	125	146	113	1263
	(14.3)	(0.0)	(0.0)	(9.1)	(21.4)	(28.9)	(35.3)	(48.3)	(45.1)	(59.5)	(70.2)	(66.4)	(69.4)	(64.6)	(69.8)	(59.6)	(62.8)	(58.7)	(56.2)	(49.3)	(56.3)
Homosexual	1	10	6	12	12	15	8	18	27	20	22	26	20	33	16	33	21	37	47	44	428
	(14.3)	(21.7)	(30.0)	(36.4)	(42.9)	(39.5)	(23.5)	(30.0)	(38.0)	(25.3)	(21.2)	(21.3)	(14.9)	(18.2)	(8.5)	(15.5)	(11.5)	(17.4)	(18.1)	(19.2)	(19.1)
Bisexual	0	1	2	7	2	6	5	8	2	2	4	4	3	10	6	10	6	7	9	4	98
	(0.0)	(2.2)	(10.0)	(21.2)	(7.1)	(15.8)	(14.7)	(13.3)	(2.8)	(2.5)	(3.8)	(3.3)	(2.2)	(5.5)	(3.2)	(4.7)	(3.3)	(3.3)	(3.5)	(1.7)	(4.4)
Injecting drug	0	1	0	0	2	2	0	0	3	1	2	2	1	2	1	6	10	11	10	11	65
use	(0.0)	(2.2)	(0.0)	(0.0)	(7.1)	(5.3)	(0.0)	(0.0)	(4.2)	(1.3)	(1.9)	(1.6)	(0.7)	(1.1)	(0.5)	(2.8)	(5.5)	(5.2)	(3.8)	(4.8)	(2.9)
Blood contact	5	32	10	7	2	2	5	0	1	1	1	0	0	1	0	1	0	0	0	0	68
	(71.4)	(69.6)	(50.0)	(21.2)	(7.1)	(5.3)	(14.7)	(0.0)	(1.4)	(1.3)	(1.0)	(0.0)	(0.0)	(0.6)	(0.0)	(0.5)	(0.0)	(0.0)	(0.0)	(0.0)	(3.0)
Perinatal	0	0	0	0	0	0	0	0	0	0	1	2	1	0	2	4	2	2	1	0	15
	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(0.0)	(1.0)	(1.6)	(0.7)	(0.0)	(1.1)	(1.9)	(1.1)	(0.9)	(0.4)	(0.0)	(0.7)
Undetermined	0	2	2	4	4	2	4	5	6	8	1	7	16	18	32	32	29	31	47	57	307
	(0.0)	(4.3)	(10.0)	(12.1)	(14.3)	(5.3)	(11.8)	(8.3)	(8.5)	(10.1)	(1.0)	(5.7)	(11.9)	(9.9)	(16.9)	(15.0)	(15.8)	(14.6)	(18.1)	(24.9)	(13.7)
Total	7	46	20	33	28	38	34	60	71	79	104	122	134	181	189	213	183	213	260	229	2244
	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)	(100)

Year Exposure Category (%)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Heterosexual	1 (33.3)		1 (16.7)	0 (0.0)	3 (17.6)	3 (23.1)	2 (14.3)	5 (35.7)	10 (52.6)	16 (43.2)	31 (68.9)	55 (78.6)	44 (68.8)	50 (79.4)	44 (72.1)	56 (83.6)	48 (80.0)	37 (69.8)	46 (82.1)	452 (67.6)
Homosexual	1 (33.3)		3 (50.0)	4 (57.1)	8 (47.1)	2 (15.4)	6 (42.9)	8 (57.1)	7 (36.8)	13 (35.1)	9 (20.0)	6 (8.6)	10 (15.6)	6 (9.5)	8 (13.1)	1 (1.5)	5 (8.3)	8 (15.1)	7 (12.5)	112 (16.7)
Bisexual	1 (33.3)		0 (0.0)	1 (14.3)	3 (17.6)	3 (23.1)	2 (14.3)	1 (7.1)	1 (5.3)	4 (10.8)	3 (6.7)	1 (1.4)	3 (4.7)	1 (1.6)	1 (1.6)	1 (1.5)	2 (3.3)	2 (3.8)	0 (0.0)	30 (4.5)
Injecting drug use	0 (0.0)		0 (0.0)	0 (0.0)	1 (5.9)	0 (0.0)	0 (0.0)	0 (0.0)	1 (5.3)	0 (0.0)	1 (2.2)	1 (1.4)	1 (1.6)	0 (0.0)	1 (1.6)	2 (3.0)	1 (1.7)	1 (1.9)	0 (0.0)	10 (1.5)
Blood contact	0 (0.0)		0 (0.0)	1 (14.3)	2 (11.8)	3 (23.1)	3 (21.4)	0 (0.0)	0 (0.0)	3 (8.1)	0 (0.0)	2 (2.9)	1 (1.6)	1 (1.6)	2 (3.3)	1 (1.5)	0 (0.0)	0 (0.0)	1 (1.8)	20 (3.0)
Perinatal	0 (0.0)		0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (2.7)	1 (2.2)	0 (0.0)	0 (0.0)	1 (1.6)	1 (1.6)	1 (1.5)	1 (1.7)	0 (0.0)	0 (0.0)	6 (0.9)
Undetermined	0 (0.0)		2 (33.3)	1 (14.3)	0 (0.0)	2 (15.4)	1 (7.1)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	5 (7.1)	5 (7.8)	4 (6.3)	4 (6.6)	5 (7.5)	3 (5.0)	5 (9.4)	2 (3.6)	39 (5.8)
Total	3 (100)		6 (100)	7 (100)	17 (100)	13 (100))	14 (100)	14 (100)	19 (100))	37 (100)	45 (100)	70 (100)	64 (100)	63 (100)	61 (100)	67 (100)	60 (100)	53 (100)	56 (100)	669 (100)

(b) Distribution of reported AIDS cases by exposure category (1985 - 2003)

Box 2.6 Reported HIV/AIDS cases in drug users







(b) Reported AIDS case in drug users - by gender
Box 2.7 Reported sexually acquired HIV cases



(a) Yearly reports of sexually acquired HIV cases



(b) Yearly reports of sexually acquired AIDS cases

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Year	HIV	AIDS
1984	1.0 : 1	
1985	0.0 : 1	0.5 : 1
1986	0.0 : 1	
1987	0.1 : 1	0.0 : 1
1988	0.4 : 1	0.0 : 1
1989	0.4 : 1	0.3 : 1
1990	0.8 : 1	0.6 : 1
1991	1.0 : 1	0.3 : 1
1992	0.9 : 1	0.6 : 1
1993	1.7 : 1	0.9 : 1
1994	2.3 : 1	0.8 : 1
1995	1.9 : 1	2.0 : 1
1996	3.0 : 1	7.1 : 1
1997	2.0 : 1	2.5 : 1
1998	4.1 : 1	5.9 : 1
1999	2.0 : 1	4.2 : 1
2000	2.9 : 1	23.5 : 1
2001	1.9 : 1	5.1 : 1
2002	1.8 : 1	2.6 : 1
2003	1.7 : 1	4.9 : 1
Total	1.7 : 1	2.6 : 1

(c) Ratio of heterosexual vs. homosexual/bisexual men reported with HIV/AIDS

Box 2.8 Age-specific rate of sexually acquired HIV infection

Year	A	ge-specific ra	te (per 100,0	00 population)
Age group	1999	2000	2001	2002	2003
0 - 4	0	0	0	0	0
5 - 9	0	0	0	0	0
10 - 14	0	0	0	0	0
15 - 19	0.42	0.42	0.44	0.44	0
20 - 24	2.64	2.67	2.22	3.59	1.80
25 - 29	6.98	4.12	7.06	7.60	6.10
30 - 34	12.17	8.74	12.10	13.01	9.57
35 - 39	5.74	7.43	9.27	10.59	10.86
40 - 44	6.01	5.81	4.47	7.71	4.76
45 - 49	3.52	2.69	4.07	3.18	3.02
50 - 54	6.38	2.38	2.64	4.68	2.91
55 - 59	5.26	2.27	2.21	4.68	7.92
60 - 64	2.20	2.95	2.99	5.44	1.61
65 - 69	0.77	1.55	1.56	2.33	3.92
>= 70	2.03	0.48	0.91	0.00	1.24
Total	4.01	3.20	3.83	4.70	3.92

(a) Age-specific rate of sexually acquired HIV infection in men

* Populations are taken from The Census & Statistics Department: Population and Vital Events –mid-year population

Year	А	.ge-specific ra	te (per 100,0	00 populatior	ו)
Age group	1999	2000	2001	2002	2003
0 - 4	0	0	0	0	0
5 - 9	0	0	0	0	0
10 - 14	0	0	0	0	0
15 - 19	0	0	0	0.47	0.47
20 - 24	3.30	1.65	3.31	1.32	0.90
25 - 29	3.83	3.10	4.22	2.91	3.44
30 - 34	1.85	2.79	2.44	4.48	1.19
35 - 39	2.21	1.09	1.88	2.68	1.65
40 - 44	0.63	0.30	0.87	0.56	0.81
45 - 49	0.41	1.97	0.74	2.08	0.65
50 - 54	0.59	1.57	0	0	0.42
55 - 59	0	0.91	0.86	0.75	1.31
60 - 64	0.81	0	0.85	0.89	0.93
65 - 69	0	0	0.82	0	0.00
>= 70	0	0.37	0	0	0.33
Total	1.17	1.09	1.25	1.35	0.91

(b) Age-specific rate of sexually acquired HIV infection in women

* Populations are taken from The Census & Statistics Department: Population and Vital Events –mid-year population

Year ADI (%)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	Total
Pneumocystic Pneumonia (PCP)	1 (33.3)		2 (33.3)	4 (57.1)	8 (47.1)	5 (38.5)	4 (28.6)	7 (50.0)	10 (52.6)	12 (32.4)	17 (37.8)	21 (30.0)	20 (31.3)	26 (41.3)	23 (37.7)	30 (44.8)	26 (43.3)	25 (47.2)	22 (39.3)	263 (39.3)
Mycobacterium Tuberculosis	0 (0.0)		0 (0.0)	0 (0.0)	1 (5.9)	2 (15.4)	3 (21.4)	1 (7.1)	2 (10.5)	4 (10.8)	8 (17.8)	21 (30.0)	17 (26.6)	18 (28.6)	13 (21.3)	19 (28.4)	17 (28.3)	9 (17.0)	15 (26.8)	150 (22.4)
Other fungal infections	0 (0.0)		3 (50.0)	0 (0.0)	3 (17.6)	0 (0.0)	2 (14.3)	2 (14.3)	1 (5.3)	4 (10.8)	7 (15.6)	6 (8.6)	10 (15.6)	8 (12.7)	5 (8.2)	4 (6.0)	5 (8.3)	8 (15.1)	4 (7.1)	72 (10.8)
Penicilliosis	0 (0.0)		0 (0.0)	0 (0.0)	0 (0.0)	1 (7.7)	1 (7.1)	0 (0.0)	1 (5.3)	6 (16.2)	7 (15.6)	7 (10.0)	5 (7.8)	2 (3.2)	7 (11.5)	5 (7.5)	1 (1.7)	7 (13.2)	5 (8.9)	55 (8.2)
Cytomegalovirus diseases	1 (33.3)		0 (0.0)	0 (0.0)	0 (0.0)	1 (7.7)	1 (7.1)	1 (7.1)	2 (10.5)	1 (2.7)	3 (6.7)	4 (5.7)	4 (6.3)	3 (4.8)	2 (3.3)	3 (4.5)	2 (3.3)	0 (0.0)	3 (5.4)	31 (4.6)
Non-TB mycobacterial infections	0 (0.0)		0 (0.0)	0 (0.0)	1 (5.9)	0 (0.0)	3 (21.4)	0 (0.0)	1 (5.3)	0 (0.0)	0 (0.0)	2 (2.9)	1 (1.6)	0 (0.0)	5 (8.2)	1 (1.5)	5 (8.3)	2 (3.8)	1 (1.8)	22 (3.3)
Kaposi's sarcoma	1 (33.3)		0 (0.0)	1 (14.3)	2 (11.8)	1 (7.7)	0 (0.0)	2 (14.3)	0 (0.0)	4 (10.8)	1 (2.2)	2 (2.9)	3 (4.7)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.8)	18 (2.7)
Others	0 (0.0)		1 (16.7)	2 (28.6)	2 (11.8)	3 (23.1)	0 (0.0)	1 (7.1)	2 (10.5)	6 (16.2)	2 (4.4)	7 (10.0)	4 (6.3)	6 (9.5)	6 (9.8)	5 (7.5)	4 (6.7)	2 (3.8)	5 (8.9)	58 (8.7)
Total	3 (100)		6 (100)	7 (100)	17 (100)	13 (100)	14 (100)	14 (100)	19 (100)	37 (100)	45 (100)	70 (100)	64 (100)	63 (100)	61 (100)	67 (100)	60 (100)	53 (100)	56 (100)	669 (100)

Box 2.9 Profile of primary AIDS defining illnesses (ADI) (1985 - 2003)

3. TABULATED RESULTS OF SEROSURVEILLANCE STUDIES

System description

• This is a collection of data from seroprevalence studies and public service records that contribute to the understanding of the HIV situation in selected community groups or settings.

System layout

	Setting	System	Since	Sample size	Data available in 2003				
(a) Community	y with predisposing risk fact	ors							
STD patients	Social Hygiene Clinics	Voluntary testing offered to clients	1985	30000 – 40000 / year	Yes				
Drug users (1)	Methadone Clinics	Unlinked anonymous screening using urine samples	1992	2000 – 4000 year	Yes				
Drug users (2)	All rehabilitation services	Voluntary testing	1985	300 – 1000 / year	Yes				
Drug users (3)	Street addicts approached by outreach workers	Voluntary testing on unlinked saliva samples	1993 (to 1997)	200 – 500 / year	No				
(b) Community	(b) Community without risk factors								
Blood donors	Hong Kong Red Cross Blood Transfusion Service	A requirement for all potential donors	1985	150000 – 200000 / year	Yes				
Antenatal women	All maternal and child health centres and public hospitals	Universal voluntary testing	Sept 2001	Around 40000 / year	Yes				
*Neonates	Testing of Cord blood from delivering women	Unlinked anonymous screening on blood samples	1990 (to 2000)	4000 / year	No				
Civil servants	Pre-employment health check	Unlinked anonymous screening on blood samples	1991 (once)	1553	No				
(c) Community	y with undefined risk								
TB patients (1)	TB and Chest Clinics of the Department of Health	Unlinked anonymous screening	1990	1000 / year	Yes				
TB patients (2)	TB and Chest Clinics of the Department of Health	Voluntary testing	1993	2000 – 3500 / year	Yes				
Prisoners	Penal institutions	Unlinked anonymous screening on blood / urine samples	1992	1000 – 2000 / year	Yes				

*replaced by universal voluntary testing of antenatal women since Sep 2001

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Box 3.1 HIV seroprevalence in blood donors at Hong Kong Red Cross Blood Transfusion Service

Year	Units of blood donated	No. of units anti-HIV+	Positive detection rate of donated units (%)	95% C.I. for prevalence (%)
1985	58,563	2	0.003	(0.0004 - 0.0123)
1986	146,639	1	0.001	(0.00002 - 0.0038)
1987	155,079	2	0.001	(0.0002 - 0.0047)
1988	152,319	2	0.001	(0.0002 - 0.0047)
1989	156,587	3	0.002	(0.0004 - 0.0056)
1990	168,082	4	0.002	(0.0006 - 0.0061)
1991	181,756	3	0.002	(0.0003 - 0.0048)
1992	176,492	9	0.005	(0.0023 - 0.0097)
1993	165,053	3	0.002	(0.0004 - 0.0053)
1994	172,151	7	0.004	(0.0016 - 0.0084)
1995	178,447	4	0.002	(0.0006 - 0.0057)
1996	190,257	5	0.003	(0.0009 - 0.0061)
1997	187,753	7	0.004	(0.0015 - 0.0077)
1998	200,197	7	0.003	(0.0014 - 0.0072)
1999	189,959	7	0.004	(0.0015 - 0.0076)
2000	189,532	9	0.005	(0.0022 - 0.0090)
2001	193,835	3	0.002	(0.0003 - 0.0045)
2002	193,702	3	0.002	(0.0003 - 0.0045)
2003	179,962	6	0.003	(0.0012 - 0.0073)

(a) HIV detection rate by number of donated blood units (1985 - 2003)

		New donors	3		Repeat done	ors
Year	No. of donors	No. of donors anti-HIV+	HIV positivity rate (%) (95% C.I. (%))	No. of donors	No. of donors anti-HIV+	HIV positivity rate (%) (95% C.I. (%))
1991	48,769	0	0 ()	132,987	3	0.002 (0.0005 - 0.0066)
1992	43,674	1	0.002 (0.0001 - 0.0128)	132,818	8	0.006 (0.0026 - 0.0119)
1993	36,146	1	0.003 (0.0001 - 0.0154)	128,907	2	0.002 (0.0002 - 0.0056)
1994	38,077	2	0.005 (0.0006 - 0.0190)	134,074	5	0.004 (0.0012 - 0.0087)
1995	39,778	2	0.005 (0.0006 - 0.0182)	93,280	2	0.002 (0.0003 - 0.0077)
1996	40,875	1	0.002 (0.0001 - 0.0136)	99,294	4	0.004 (0.0011 - 0.0103)
1997	40,419	1	0.002 (0.0001 - 0.0138)	81,906	6	0.007 (0.0027 - 0.0159)
1998	43,756	3	0.007 (0.0014 - 0.0200)	92,511	4	0.004 (0.0012 - 0.0111)
1999	40,960	1	0.002 (0.0001 - 0.0136)	76,098	6	0.008 (0.0029 - 0.0172)
2000	41,116	5	0.012 (0.0039 - 0.0284)	148,366	4	0.003 (0.0007 - 0.0069)
2001	43,415	0	0 ()	150,420	3	0.002 (0.0004 - 0.0058)
2002	42,292	1	0.002 (0.0001 – 0.0132)	151,410	2	0.001 (0.0002 – 0.0048)
2003	36,732	3	0.008 (0.0017 – 0.0239)	143,230	2	0.001 (0.0002 – 0.0050)

(b) HIV seroprevalence in new and repeat blood donors (1991 - 2003)

Year	No. of blood samples	No. of samples tested anti-HIV+	Prevalence (%)	95%	% C.I. for prev	alence (%)
1985	7,911	5	0.063	(0.021 -	0.147)
1986	27,179	2	0.007	(0.001 -	0.027)
1987	33,553	2	0.006	(0.001 -	0.022)
1988	33,039	3	0.009	(0.002 -	0.027)
1989	29,663	6	0.020	(0.007 -	0.044)
1990	27,045	9	0.033	(0.015 -	0.063)
1991	27,013	19	0.070	(0.042 -	0.110)
1992	27,334	12	0.044	(0.023 -	0.077)
1993	28,736	16	0.056	(0.032 -	0.090)
1994	30,162	29	0.096	(0.064 -	0.138)
1995	33,896	14	0.041	(0.023 -	0.069)
1996	37,126	25	0.067	(0.044 -	0.099)
1997	38,779	27	0.070	(0.046 -	0.101)
1998	46,127	27	0.059	(0.039 -	0.085)
1999	51,639	31	0.060	(0.041 -	0.085)
2000	51,197	20	0.039	(0.024 -	0.060)
2001	51,209	31	0.061	(0.041 -	0.086)
2002	53,363	41	0.077	(0.055 -	0.104)
2003	42,764	34	0.080	(0.055 -	0.111)

Box 3.2 HIV seroprevalence in clients attending Social Hygiene Services, from voluntary blood testing (1985 - 2003)

Box 3.3 HIV seroprevalence in drug users attending methadone clinics

Year	No. of urine samples	No. of samples tested anti-HIV+	Prevalence (%)	95% C.I. for prevalence (%)
1992	2,189	0	0	()
1993	3,219	0	0	()
1994	4,113	2	0.049	(0.006 - 0.176)
1995	2,240	1	0.045	(0.001 - 0.249)
1996	3,714	1	0.027	(0.001 - 0.150)
1997	1,816	0	0	()
1998	2,838	6	0.211	(0.078 - 0.460)
1999	2,674	3	0.112	(0.023 - 0.328)
2000	3,644	10	0.274	(0.132 - 0.505)
2001	3,811	4	0.105	(0.029 - 0.269)
2002	4,037	10	0.248	(0.119 - 0.456)
2003	1,949	5	0.257	(0.083 - 0.599)

(a) HIV seroprevalence in drug users attending methadone clinics from unlinked anonymous screening (1992 - 2002)

Year	*No. of blood samples	No. of samples tested anti-HIV+	Prevalence (%)	959	% C.I. for	r pre	valence ('	%)
1991	379	0	0	(-)
1992	212	0	0	(-)
1993	198	0	0	(-)
1994	296	1	0.338	(0.009	-	1.882)
1995	102	0	0	(-)
1996	302	0	0	(-)
1997	254	0	0	(-)
1998	250	1	0.400	(0.010	-	2.229)
1999	599	3	0.501	(0.103	-	1.464)
2000	602	1	0.166	(0.004	-	0.926)
2001	363	0	0	(-)
2002	318	0	0	(-)
2003	148	0	0	(-)

(b) HIV seroprevalence in drug users attending methadone clinics from voluntary testing (1991 - 2002)

* all were blood samples, with a small proportion being urine samples since late 1999

Box 3.4 HIV seroprevalence in drug users attending inpatient drug treatment centres / institutions, from unlinked anonymous screening (1998 - 2003)

Year	No. of urine samples	No. of samples tested anti-HIV+	Prevalence (%)	959	% C.I. for pre	evalence (°	%)
1998	2,286	3	0.131	(0.027 -	0.384)
1999	1,675	3	0.179	(0.037 -	0.523)
2000	1,165	7	0.601	(0.242 -	1.238)
2001	1,137	2	0.176	(0.021 -	0.635)
2002	761	0	0	()
2003	361	1	0.277	(0.007 -	1.543)

Year	No. of Samples*	No. of samples tested anti-HIV+	Prevalence (%)		95% C.I. for prevalence (%)		. for e (%)	
1995	653	3	0.459	(0.095	-	1.343)
1996	1,503	6	0.399	(0.147	-	0.869)
1997	1,474	3	0.204	(0.042	-	0.595)
1998	1,571	4	0.255	(0.069	-	0.652)
1999	1,580	10	0.633	(0.480	-	1.841)
2000	1,516	4	0.264	(0.072	-	0.676)
2001	1,502	5	0.333	(0.108	-	0.777)
2002	1,500	6	0.400	(0.147	-	0.871)
2003	1,502	5	0.333	(0.108	-	0.777)

Box 3.5 HIV seroprevalence in newly admitted prisoners from unlinked anonymous screening (1995 - 2003)

* Only samples of 1995 were blood samples. All others were urine samples.

Box 3.6 HIV seroprevalence in patients with tuberculosis

(a) HIV seroprevalence in patients attending government TB & Chest Clinics, from unlinked anonymous screening (1990 - 2003)

Year	No. of urine samples	No. of samples tested anti-HIV+	Prevalence (%)	9	95% C.I. for prevalence(%		alence(%))
1990	1,548	0	0	(-)
1991	485	0	0	(-)
1992	1,469	2	0.136	(0.016	-	0.492)
1993	1,173	0	0	(-)
1994*	-	-	-	(-)
1995	895	2	0.223	(0.027	-	0.807)
1996	998	4	0.401	(0.109	-	1.026)
1997	1,003	2	0.199	(0.024	-	0.720)
1998	833	4	0.480	(0.131	-	1.229)
1999	1,166	8	0.686	(0.296	-	1.352)
2000	1,018	5	0.491	(0.159	-	1.146)
2001	1,071	4	0.373	(0.102	-	0.956)
2002	866	8	0.924	(0.399	-	1.820)
2003	564	1	0.177	(0.004	-	0.988)

* Unlinked anonymous screening was not performed in 1994

Voor	No. of blood complex	Cove	rage*	No. of anti LUV.	\mathbf{D} rovalance $(9/)$	95% C L for prevalence (%)				
real	No. of blood samples	А	В		Prevalence (%)					
1993	2,116			0	0	(-)
1994	2,534			2	0.079	(0.010	-	0.285)
1995	2,548			2	0.078	(0.010	-	0.284)
1996	3,157			2	0.063	(0.008	-	0.229)
1997	3,524			2	0.057	(0.007	-	0.205)
1998	3,726			6	0.161	(0.059	-	0.350)
1999	3,633			11	0.303	(0.151	-	0.542)
2000	3,426	92.8%	48.3%	3	0.088	(0.018	-	0.256)
2001	3,404	94.2%	48.1%	9	0.264	(0.121	-	0.502)
2002	3,186	94.2%	50.3%	7	0.220	(0.088	-	0.453)
2003	3,122	92.3%	54.5%	2	0.064	(0.008	-	0.231)

(b) HIV seroprevalence in patients attending government TB & Chest Clinics, from voluntary blood testing (1993 - 2003)

* coverage A is the proportion of patients who started on TB tx at government TB & Chest Clinics who have been tested for HIV in TB Clinic B is the proportion of total TB notifications who have been tested for HIV at government TB & Chest Clinics.

Box 3.7 HIV prevalence among antenatal women

(a)	HIV prevalence among antenatal women from unlinked anonymous screening	(1990	- 2000)

Year	No. of blood samples	No. of anti-HIV+ Prevalence (%)		95% C.I. for prevalence (%)
1990	993	0	0	()
1991	5,253	0	0	()
1992	5,796	0	0	()
1993	4,532	0	0	()
1994	4,762	0	0	()
1995	4,648	1	0.02	(0.0005 - 0.1199)
1996	3,968	1	0.03	(0.0006 - 0.1404)
1997	3,331	0	0	()
1998	3,031	1	0.03	(0.0008 - 0.1838)
1999	3,125	1	0.03	(0.0008 - 0.1783)
2000	3,478	1	0.03	(0.0007 - 0.1602)

(b) HIV prevalence among antenatal women from Universal Antenatal HIV Antibody Testing Programme (2001 - 2003)

	Number of tests	Coverage*	Number of positive tests	Prevalence (%)	95% C.I. for prevalence (%)
2001 (Sep-Dec)	12,965	96.6%	7	0.05	(0.0217 - 0.1112)
2002	41,932	97.2%	8	0.02	(0.0082 - 0.0376)
2003	36,366	96.9%	6	0.02	(0.0061 - 0.0359)

* coverage is the proportion of women attending public antenatal services who have been tested for HIV

4. TABULATED RESULTS OF STATISTICS ON SEXUALLY TRANSMITTED INFECTIONS (STI)

System description:

 This is a clinic based disease reporting system contributed by Social Hygiene Service, Department of Health. Summary tables are submitted quarterly by Social Hygiene Service. The clinics included in this surveillance system are: Chai Wan, Lek Yuen, Tang Shiu Kin, Western, Yau Ma Tei, South Kwai Chung, Yung Fung Shee, Tuen Mun, Tai Po, and Shek Wu Hui. Tai Po and Shek Wu Hui clinics were closed since 2001

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Box 4.1 Total number of STI reported by individual Social Hygiene Clinic

(a) Year 2003

	Chai Wan	Western*	Wan Chai	Yau Ma Tei	Yung Fung Shee	South Kwai Chung	Lek Yuen	Tuen Mun	Fanling ITC [#]
Male	290	193	2,030	6,033	1,437	1,163	958	960	31
Female	193	141	1,215	4,621	754	540	771	940	40
Total	483	334	3,245	10,654	2,191	1,703	1,729	1,900	71

* Western Social Hygiene Clinic was merged with Wan Chai Social Hygiene Clinic and Sai Ying Pun Dermatology Clinic wef 2.7.2003.

Venereal Diseases Clinics in Fanling ITC was commenced operation in part-time basis on 1.9.2003 by appointment only.





Box 4.2 Annual reported STIs in Social Hygiene Clinics

^ NSGI / NGU : Non-specific Genital Infection / Non-gonococcal Urethritis

Year	1999	2000	2001	2002	2003
Primary	289	271	221	174	115
Secondary	75	87	60	67	68
Early latent	321	278	295	243	144
Late latent	419	354	528	573	466
Late (cardiovascular / neuro)	1	0	3	2	1
Congenital (early)	0	0	0	0	0
Congenital (late)	5	3	1	2	1
Total	1,110	993	1,108	1,061	795

Box 4.3 Syphilis reported by Social Hygiene Clinics (1999 - 2003)



Box 4.4 Sexually acquired HIV infection in Hong Kong

* SHS: Social Hygiene Service





5. TABULATED RESULTS ON BEHAVIOURAL MONITORING

System description

• This is a tabulation of behavioural data relating to HIV risk collected from different sources in Hong Kong

System layout

Source	Sexual behaviour	Drug-taking behaviour	Data available in 2003
AIDS Counselling Service (ACS)	 Median no. of sexual partners among men Recent history of commercial sex Condom use in men No. of sexual partners and Condom use in MSM 		Yes
Social Hygiene Service (SHS)	 Recent history of commercial sex Condom use in heterosexual men 		Yes
Methadone clinics (DRS-M)		 Proportion of injectors Practice of needle-sharing 	Yes
Shek Kwu Chau (SKC) Treatment and Rehabilitation Centre (DRS-S)		 Proportion of injectors Practice of needle-sharing 	Yes
Central Registry of Drug Abuse (CRDA)		 Proportion of injectors in all drug users Proportion of injectors in new drug users 	No
Street Addict Survey (SAS) (From the society for the Aid and Rehabilitation of Drug Abusers)		 Proportion of injectors Practice of needle-sharing 	Yes
Community Research Programme on AIDS (CRPA-H and –T H: Household; T: Travellers) (From Centre for Epidemiology and Biostatistics)	- Condom use in heterosexual men		No

Tables & Figures

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Box 5.1 Median number of sex partners in the previous year among adult heterosexual men / MSM attending AIDS Counselling Service (ACS)

	1999	2000	2001	2002	2003
Heterosexual men - Regular sex partners*	1	1	1	1	1
Heterosexual men - Commercial sex partners**	2	2	2	2	2
Heterosexual men - Casual sex partners***	1	1	1	1	1
MSM - Regular sex partners*	1	1	1	1	1
MSM - Commercial sex partners**	4.5	5	1	2	2.5
MSM - Casual sex partners***	3	4	3	3	3

* Regular sex partners refer to the spouse or other long-term sex partners for at least one year, or if less than one year, one with whom you expect to continue sexual relationship. This include spouse, mistress, and steady boy/girl friends.

** Commercial sex partners are defined as those who have sexual intercourse in exchange for money, goods or services. Examples are prostitutes and customers of prostitutes.

*** Casual sex partners, the two do not have steady relationship.



Box 5.2 Recent history* of commercial sex among adult men

- * Time period: SHS & ACS : past one year / CRPA : past 6 months
- Remarks : Data of CRPA of 2000, 2002 and 2003 is not available
 - SHS Social Hygiene Services
 - ACS AIDS Counselling Service

CRPA - Community Research Programme on AIDS from Centre for Epidemiology and Biostatistics (H: Household; T: Travellers)



Box 5.3 Regular condom use* with regular partners** among adult heterosexual men

- * Regular condom use is defined as always or usually using a condom on a 4-level scale
- ** Regular partners refer to the spouse or other long-term sex partners for at least one year, or if less than one year, one with whom you expect to continue sexual relationship. This include spouse, mistress, and steady boy/girl friends
- Remarks : SHS Social Hygiene Services ACS - AIDS Counselling Service



Box 5.4 Regular condom use* with commercial partners** among adult heterosexual men

* Regular condom use is defined as always or usually using a condom on a 4-level scale

** Commercial sex partners are defined as those who have sexual intercourse in exchange for money, goods or services. Examples are prostitutes and customers of prostitutes.

Remarks : Data of CRPA of 2002 and 2003 is not available

SHS – Social Hygiene Services

ACS - AIDS Counselling Service

CRPA - Community Research Programme on AIDS from Centre for Epidemiology and Biostatistics (H: Household; T: Travellers)



Box 5.5 Condom use for last sex with regular partners* among adult heterosexual men

- * Regular sex partners refer to the spouse or other long-term sex partners for at least one year, or if less than one year, one with whom you expect to continue sexual relationship. This include spouse, mistress, and steady boy/girl friends.
- Remarks : Data from SHS of 2000 is not available SHS – Social Hygiene Services ACS - AIDS Counselling Service

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Box 5.6 Condom use for last sex with commercial partners* among adult heterosexual men

- * Commercial sex partners are defined as those who have sexual intercourse in exchange for money, goods or services. Examples are prostitutes and customers of prostitutes.
- Remarks : SHS Social Hygiene Services ACS - AIDS Counselling Service



Box 5.7 Condom use among adult MSMs attending AIDS Counselling Service (ACS)

- * Regular condom use is defined as always or usually using a condom on a 4-level scale
- ** Regular sex partners refer to the spouse or other long-term sex partners for at least one year, or if less than one year, one with whom you expect to continue sexual relationship. This include spouse, mistress, and steady boy/girl friends.
- *** Casual sex partners, the two do not have steady relationship.

Box 5.8 Proportion of injectors



* New clients refer to people who are known to the CRDA for the first time in a period. For a particular period, a person will be regarded as a newly reported person if and only if the person does not have any report before the specified period.

Remarks:Data of CRDA is up to June 2003
DRS-S - Shek Kwu Chau Treatment and Rehabilitation Centre
DRS-M - Methadone clinics
SAS - Street Addict Survey (From the society for the Aid and Rehabilitation of Drug Abusers)
CRDA - Central Registry of Drug Abuse

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Remarks: DRS-S - Shek Kwu Chau Treatment and Rehabilitation Centre DRS-M - Methadone clinics SAS - Street Addict Survey (From the society for the Aid and Rehabilitation of Drug Abusers)

Box 5.10 Age and duration of drug use

(a) Mean duration of drug use

Year Source	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
DRS-S	14.7	14.1	13.7	13.4	14.0	15.6	17.8	18.3	19.2	19.8	19.8	22.0	22.2
CRDA (new clients*)	4.1	3.2	3.4	3.2	3.1	2.9	3.4	3	3.6	2.7	2.6	3.4	3.2
CRDA (All clients)	17	16.1	15.3	15.1	14.6	14.8	15.1	15.3	16.2	14.1	14.1	15.3	16.5

* New clients refer to people who are known to the CRDA for the first time in a period. For a particular period, a person will be regarded as a newly reported person if and only if the person does not have any report before the specified period.

Remarks: Data of CRDA is up to June 2003 DRS-S - Shek Kwu Chau Treatment and Rehabilitation Centre CRDA - Central Registry of Drug Abuse

(b) Mean age of drug users

Year Source	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
DRS-M	29.6	27.5	26.3	26.5	25.0	26.3	26.2	26.8	28.7	27.9	28.7	30.4	30.9
DRS-S	36.4	36.2	36.1	35.9	36.4	37.4	38.9	39.3	40.3	40.7	41.4	42.9	43.2
CRDA (new clients*)	25.5	23.8	23.2	22.3	23.2	23.8	24.4	24.4	24.8	23.1	23.3	24.5	25.3
CRDA (All clients)	36.3	35.3	34.2	33.7	33.1	33.4	33.6	33.8	34.6	32.4	32.5	33.7	35.0

* New clients refer to people who are known to the CRDA for the first time in a period. For a particular period, a person will be regarded as a newly reported person if and only if the person does not have any report before the specified period.

Remarks: Data of CRDA is up to June 2003

DRS-M - Methadone Clinics

DRS-S - Shek Kwu Chau Treatment and Rehabilitation Centre

CRDA - Central Registry of Drug Abuse

(c) Mean age of initiating drug use

Year Source	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
DRS-S *	21.7	22.1	22.4	22.5	22.3	21.9	21.2	21.0	21.1	20.9	21.5	20.9	21.0
CRDA (new clients**)	21.4	20.6	19.8	19.1	20.1	20.9	21	21.4	21.2	20.4	20.7	21.1	22.1
CRDA (All clients)	19.3	19.2	18.9	18.6	18.5	18.6	18.5	18.5	18.4	18.3	18.4	18.4	18.5

* The figures are obtained assuming that the respondents have been on drug continuously without interruption

** New clients refer to people who are known to the CRDA for the first time in a period. For a particular period, a person will be regarded as a newly reported person if and only if the person does not have any report before the specified period.

Remarks: Data of CRDA is up to June 2003

DRS-S - Shek Kwu Chau Treatment and Rehabilitation Centre CRDA - Central Registry of Drug Abuse

Appendix I: HIV/AIDS report form (DH2293)

DEPARTMENT OF HEALTH	
HIV/AIDS Report Form Please read the following instructions: 1. This is a voluntary report form for reporting: (i) newly diagnosed HIV infection; (ii) newly diagnosed AIDS; (iii) change(s) of status of previously diagnosed HIV/AIDS cases 2. Only sections, (A), (C) & (D) need to be completed for reporting HIV infection. 3. All sections, (A), (B), (C) & (D) have to be completed for reporting AIDS or updating information 4. All individual's information will be treated as strictly confidential and used in global analysis only. 5. Please mark CONFIDENTIAL on the envelope and mail the completed form to: Consultant Physician Special Preventive Programmes Department of Health 5/F Yaumatei Jockey Club Clinic 145 Battery Street, Yaumatei, Kowloon. Kowloon.	L
Section (A) Reporting HIV Infection Your reference code number:	by by constraints b
Section (B) Reporting AIDS Is this an update of a previously reported HIV + case: Yes/No* Date of diagnosis: (dd/mm/yyyy)	clinical Dx/pathological Dx* clinical Dx/pathological Dx* clinical Dx/pathological Dx*
An outpatient An inpatient (Hospital :: cause of death:: Died (date : (dd/mm/yyyy): cause of death: Left HK/defaulted follow-up (date last seen: (dd/mm/yyyy))	_))
Section (D) Name of medical practitioner: in private practice/public service* Correspondence Address:	
Date: Tel. no.: Fax no.:	E-mail :
*delete whichever inappropriate DH 2293, revised August 2001 ALL INFORMATION WILL BE TREATED IN STRICT CONFIL	DENCE

<u>Appendix II</u>: Classification system for HIV infection and surveillance case definition for AIDS in adolescents and adults in Hong Kong.

Γ

A definitive laboratory diagnosis of HIV infection normally by a positive screening test for HIV antibody (e.g. ELISA) supplemented by a confirmatory test (e.g. western blot) + one or more of the ALDS indicator conditions							
AIDS indicator conditions	Candidiasis of bronchi, trachea, or lungs Candidiasis, oesophageal Cervical cancer, invasive Coccidiodomycosis, disseminated or extrapulmonary Cryptococcosis, extrapulmonary Cryptosporidiosis, chronic intestinal (>1 month's duration) Cytomegalovirus disease (other than liver, spleen or nodes) Cytomegalovirus retinitis (with loss of vision) Encephalopathy, HIV-related <i>Herpes simplex</i> : chronic ulcer(s) (>1 month's duration); or bronchitis, pneumonitis, or oesophagitis Histoplasmosis, disseminated or extrapulmonary Isosporiasis, chronic intestinal (>1 month's duration) Kaposi's sarcoma Lymphoma, Burkitt's (or equivalent term) Lymphoma, primary, of brain <i>Mycobacterium tuberculosis</i> ; extrapulmonary or pulmonary/cervical lymph node (only if CD4<200/ul) Pneumonia, recurrent Penicilliosis, disseminated Mycobacterium, other species or unidentified species, disseminated or extrapulmonary <i>Pneumocystis carinii</i> pneumonia Progressive multifocal leukoencephalopathy Salmonella septicaemia, recurrent Toxoplasmosis of brain Wasting syndrome due to HIV						
Hong Kong has a classification with AIDS-defining cor CD4 < 200 µl, (3) AIDS.	dopted the 1993 Centers for Disease Control and Prevention (CDC) AIDS 3 modifications: (1) disseminated penicilliosis is added as one ndition, (2) pulmonary or cervical lymph node tuberculosis included only if a CD4 < 200 µl without any AIDS-defining condition is not counted as						



Appendix III: Condom distribution from Department of Health

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Year