HIV SURVEILLANCE REPORT – 2010 UPDATE

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

Hong Kong, located in Asia the new burning place of HIV infection, is still having a relatively low prevalence of HIV infection. While sexual transmission is the predominant route of transmission in Hong Kong, various public health measures have kept the HIV prevalence of drug users at low level thus far locally, as compared with neighbouring cities. Nevertheless, an upsurge of infection in injecting drug users is always a concern from the worldwide and regional experience on HIV and drug.

A rising trend has been detected in men who have sex with men (MSM) in Hong Kong in recent years. The *HIV Surveillance Report - 2010 Update* analysed the attributes of the observed increase of HIV infections in MSM. The number of HIV reports in MSM community was still the largest amongst all, echoing the highest HIV prevalence recorded till now across different community groups. All these signified that the heightened risk of transmission of HIV in the MSM community still persisted.

With the expansion of community-based HIV voluntary testing services, non-governmental organisations were playing a more significant role in understanding the HIV epidemiology in most-at-risk populations. Through their service networks, many non-governmental organisations are contributing to the conduct of HIV prevalence & behavioural surveys and data collection in different most-at-risk populations.

This *annual surveillance report* is an initiative of Special Preventive Programme (SPP), Centre for Health Protection of the Department of Health. The report aims to provide strategic information to facilitate planning of services and intervention activities for the prevention, care and control of HIV/AIDS. Following a commentary, data collected from the five main components of our surveillance programme (the HIV/AIDS voluntary reporting system, HIV prevalence surveys, Social Hygiene Service caseload statistics, risk behaviour studies and HIV-1 genotyping studies) are presented as tables and graphs. Some changes have been made in this Report to enhance its contents. First, selected findings of Hong Kong subset in Asia Internet MSM Sex Survey were described, which was one of largest internet survey for MSM in Hong Kong. Second, the HIV/AIDS Report Form (DH 2293) for our voluntary reporting system was revised in 2010, which captured additional data on the previous negative HIV test result, so as to know better the epidemiological trend of recently HIV-seroconverted infections.

Electronic copy of this report is accessible in our website www.aids.gov.hk, so are the quarterly bulletins, factsheets on yearly situation and specific surveys, and other information relating to HIV surveillance and epidemiology. Your comments and suggestions are always welcome.

Surveillance team
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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 Narcotics and Drug Administration Unit, Tuberculosis & Chest Service, Family Health Service, Surveillance and Epidemiology Branch and the Virology Division of Public Health Laboratory Services Branch who have provided the necessary data and support over the years. For data collected in the prison setting, we are indebted to the staff of the Correctional Services 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 Narcotics Division of the Security Bureau, the Department of Microbiology of the University of Hong Kong, the School of Public Health and Primary Care of the Chinese University of Hong Kong, many of our local AIDS and non-AIDS non-governmental organisations and various public hospitals/clinics, in particular Queen Elizabeth Hospital, Prince of Wales Hospital and Princess Margaret Hospital, which have helped collect and update the relevant statistics referred by this report. We also take this opportunity to thank all doctors, health care professionals and related workers who have contributed to HIV/AIDS reporting and other surveillance components.

Finally, commendation goes to the usual excellent and dedicated support from the SPP staff in terms of collecting, collating, compiling and analysing the information as well as the editing and production of this report.

ABBREVIATION

ACTS	AIDS Counselling and Testing Service
ADI	AIDS Defining Illness
AIDS	Acquired Immune Deficiency Syndrome
AC	AIDS Concern
AIMSS	Asia Internet MSM Sex Survey
CRiSP	Community based Risk behavioural and SeroPrevalence survey for female sex workers
CD4	Cluster of Differentiation (CD)4 molecule
CRDA	Central Registry of Drug Abuse
CHP	Centre for Health Protection
CRF	Circulating Recombinant Form
CRPA	Community Research Programme on AIDS
DH	Department of Health
DRS-M	Drug Rehabilitation Services – Methadone clinics
DRS-S	Drug Rehabilitation Services – Shek Kwu Chau Treatment and Rehabilitation Centre
F	Female
HE	Heterosexual
HAART	Highly Active Antiretroviral Therapy
HIV	Human Immunodeficiency Virus
IDU	Injecting Drug User
ITC	Integrated Treatment Centre
MUT	Methadone Universal HIV Antibody (Urine) Testing
M	Male
MSM	Men who have Sex with Men
NSGI	Non-specific Genital Infection
NGU	Non-gonococcal Urethritis
ORu	Univariate Odds Ratio
ORm	Multivariate Odds Ratio
PCP	Pneumocystic Pneumonia
PCR	Polymerase Chain Reaction
PRiSM	HIV Prevalence and Risk behavioural Survey of Men who have sex with men
SKC	Shek Kwu Chau Treatment and Rehabilitation Centre
STI	Sexually Transmitted Infection
SPP	Special Preventive Programme
SHS	Social Hygiene Service
SAS	Street Addict Survey
TB	Tuberculosis
ul	microlitre
UN	Unknown

1. SUMMARY REVIEW

Background

1. The HIV surveillance system comprises 5 main programmes to provide a detailed description of HIV/AIDS situation in Hong Kong. They are (a) voluntary HIV/AIDS case-based reporting; (b) HIV prevalence surveys; (c) sexually transmitted infections (STI) caseload statistics; (d) behavioural studies; and (e) HIV-1 genotyping studies. The data is collected, analyzed and disseminated regularly by the staff of surveillance team of Special Preventive Programme (SPP), Centre for Health Protection (CHP), Department of Health (DH). At present, the latest HIV/AIDS statistics are released at quarterly intervals at press media briefings and in electronic format (www.aids.gov.hk). Data from various sources are compiled annually and released in this report.

2. The following paragraphs highlight the main findings from HIV/AIDS surveillance activities undertaken in 2010 and before. Please refer to the following pages for the details of the programmes. Surveillance information gathered from two large public health universal HIV testing programmes, targeting drug users at methadone clinics and expectant mothers via antenatal testing programme is also included in the report.

HIV Surveillance system	Page Number
(a) HIV/AIDS reporting system	Page 22 - 43
(b) HIV prevalence surveys	Page 44 – 59
(c) STI caseload statistics	Page 60 – 67
(d) Behavioural studies	Page 68 – 80
(e) HIV-1 genotyping studies	Page 81 – 94

HIV/AIDS reporting system

HIV Surveillance at a glance (2010)

- 389 HIV reports and 79 AIDS reports
- Gender: 72.2% male
- Ethnicity: 63.8% Chinese
- Age: Median 36
- Risks:
  - 30.1% Heterosexual contact
  - 42.4% Homo/bisexual contact
  - 3.9% Injecting drug use
  - 0% Blood transfusion
  - 0.8% Perinatal
  - 22.9% Undetermined
- CD4 at reporting: Median 211/ul
- HIV-1 subtypes: commonest are CRF01_AE and B
- Primary AIDS defining illness: Commonest are PCP and TB
- HIV prevalence
  - Blood donors: < 0.01%
  - Antenatal women: 0.02%
  - STI clinic attendees: 0.15%
  - Methadone clinic attendees: 0.48%

3. The Department of Health has implemented a voluntary anonymous HIV/AIDS reporting system since 1984. The system receives reports from doctors and laboratories. Doctors report newly diagnosed positive cases by a standard form (DH2293). In the past, only cases with Western Blot confirmed HIV antibody positive laboratory result were counted as HIV infection for cases aged above 18 months. Since the 4th quarter of 2006, cases with a PCR positive result and clinical or laboratory indication of recent infections were also counted as HIV infection in the reporting system, in view of the increasing regular detection of such cases.

4. In 2010, DH received 389 HIV and 79 AIDS reports, slightly fewer but still similar to the figures reported in 2009. This brought the cumulative total to 4832 and 1185 for HIV and AIDS reports respectively. (Box 2.1) Under the revised definition, 10 PCR positive cases with clinical or laboratory indication of recent infections were included as HIV infection in 2010. Public hospitals/clinics/laboratories were still the commonest source of HIV reports in 2010, which accounted for 38.6% of all. Private hospitals/clinics/laboratories were another common source of HIV reports (22.6%). Notably, the AIDS service organisations played a more significant role in HIV reporting in 2010 (10.5%). The number of reports from other sources has largely remained stable. (Box 2.2)

5. Around 72% of reported HIV cases were male. The male-to-female ratio was 2.6:1 in 2010, considerably lower than that in 2009 of 3.6:1, which suggested a growing female importance despite the overwhelming male predominance. About 64% of reported cases were Chinese. Asian non-Chinese accounted for 13.1% of reports. (Box 2.3) The median age of reported HIV cases was 36. (Box 2.4) Over 72% of reported cases were believed to have acquired the virus through sexual transmission in 2010, including homosexual (36.5%), heterosexual (30.1%), and bisexual exposure (5.9%). Injecting drug use accounted for 3.9% of HIV infections in 2010. There were 3 cases of HIV transmission through perinatal contact in 2010. The suspected routes of transmission were not reported in about a quarter (22.9%) of cases. This means that, after excluding those with undetermined exposure category, sexual transmission accounted for about 94% among HIV reports with defined risks. (Box 2.5(a))

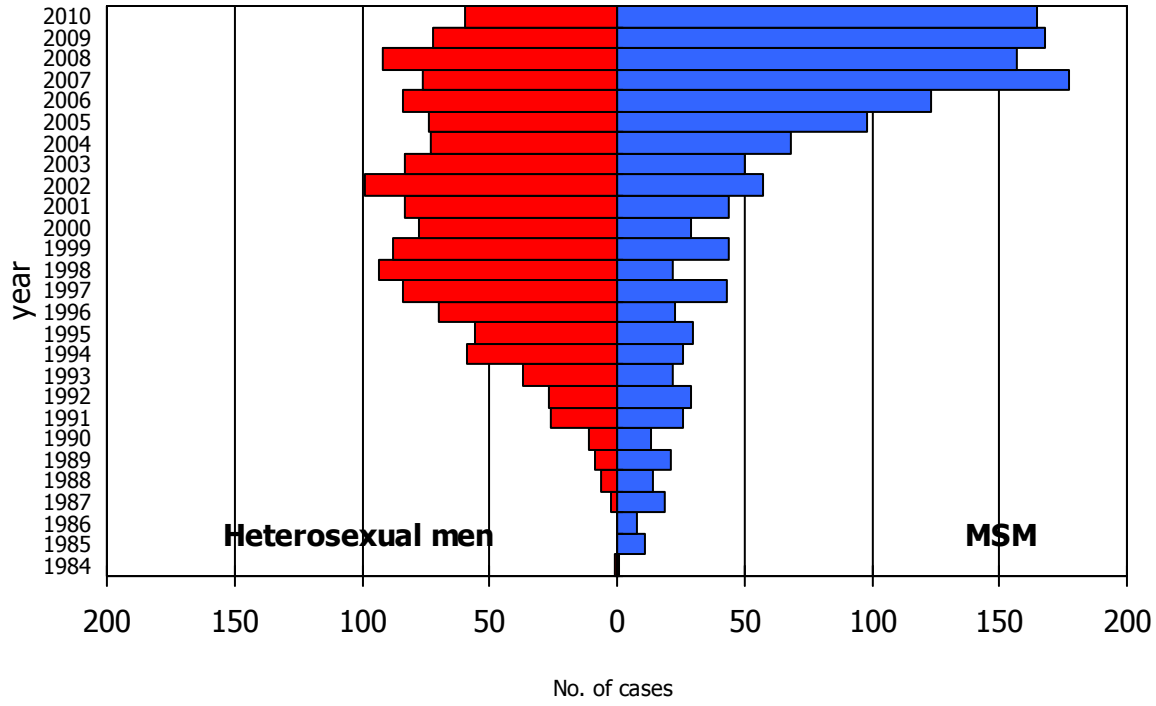
Rising trend in men who have sex with men persisted

6. Sexual contact remained the commonest route of HIV transmission in Hong Kong. Both heterosexual and homosexual/bisexual contacts were considered as the most important risk factors. In 1980s and early 1990s, the early years of HIV/AIDS epidemic in Hong Kong, it

used to report more cases from men who have sex with men, who had homosexual or bisexual contacts. The trend then reversed with heterosexual transmission overtaking homosexual / bisexual transmission from 1993 onwards. Since 2004, a rising trend in MSM has been observed and the situation remained consistent in 2010 with 165 MSM cases (55.0%) identified out of 300 cases with defined risks. (Box 2.5(a)).

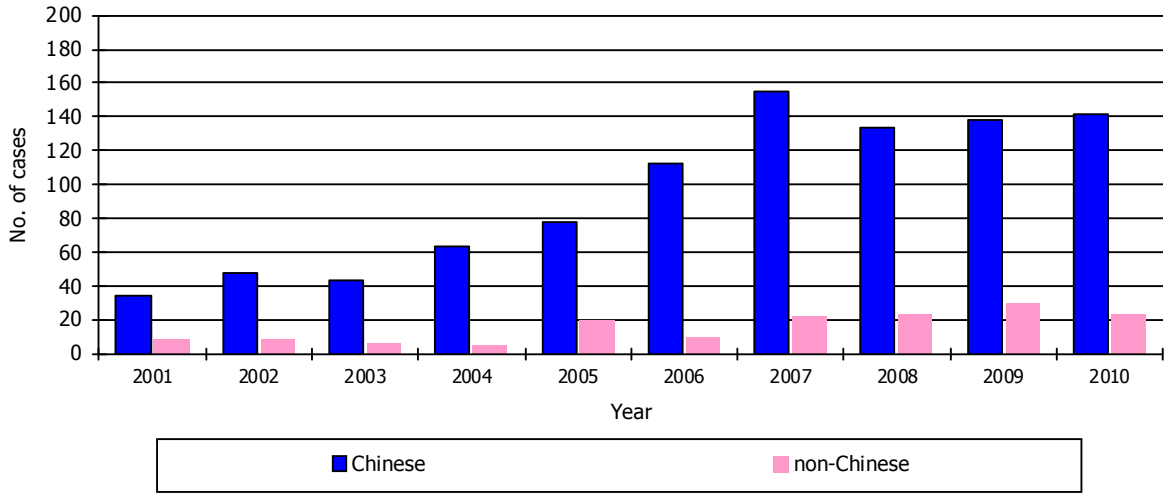
7. A high weighting of MSM in HIV reports continued in 2010. 58.7% of male HIV reports in 2010 contracted the virus through homosexual or bisexual contact. Heterosexual contact in male cases accounted for about 21%, whereas the routes of transmission were undetermined in another 14% of the male cases. The ratio of heterosexual men against MSM dropped from its peak of 4.2:1 in 1998 to 0.4:1 in 2010. (Box 1.1 and 2.7(c)) The marked disproportion with more infections among MSM than heterosexual males was evident.

Box 1.1 The number of MSM cases has taken over heterosexual men cases in the reporting system since 2005 and the gap continued to widen.

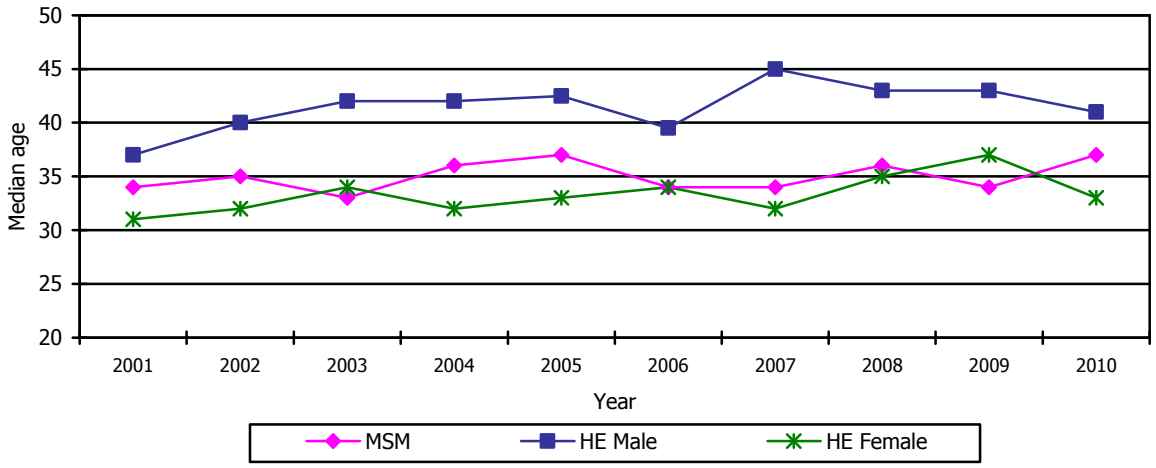


8. The major attributes of the rise in MSM were Chinese and of age group 20-49. About 86% of MSM cases in 2010 were Chinese. A rising trend in the number of reported Chinese MSM cases was observed in recent years despite a modest drop between 2007 and 2008. (Box 1.2) The median age of MSM cases at report was 37, which was lower as compared to 41 of heterosexual male cases. Moreover, the median age of HIV infected MSM population has been relatively stable in the last decade whereas that of heterosexual men remained at a higher level despite gradually becoming younger in recent 3 years. (Box 1.3) Age group 30-39 remained the commonest age group of reporting in MSM, which accounted for 35% in 2010, followed by 28% in the age group 40-49. (Box 1.4) Reported data in 2010 suggested that some 70% of MSM infections occurred in Hong Kong yearly since 2006, in contrast to a much lower proportion of 40% in heterosexual men. (Box 1.5)

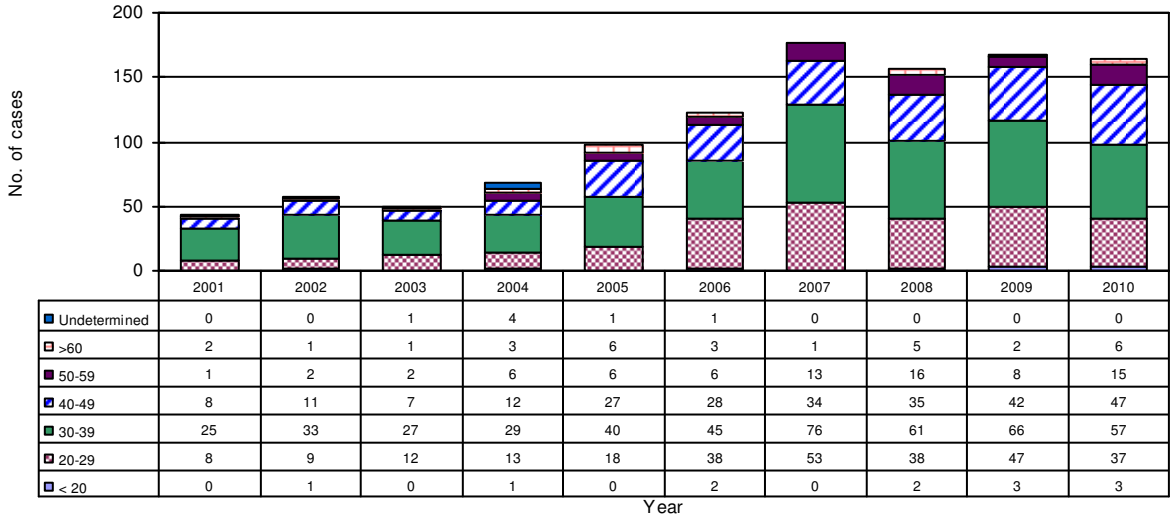
Box 1.2 Ethnicity Breakdown of HIV-infected MSM cases (2001-2010)



Box 1.3 Median HIV reporting age of HIV-infected MSM cases, heterosexual man and heterosexual women (2001-2010)



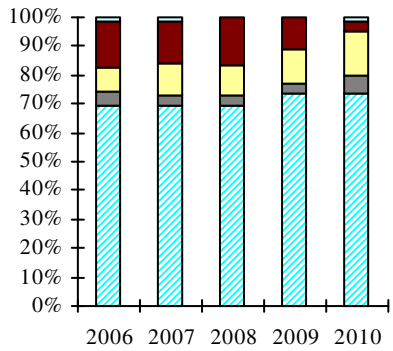
Box 1.4 Age breakdown of HIV-infected MSM cases (2001 - 2010)



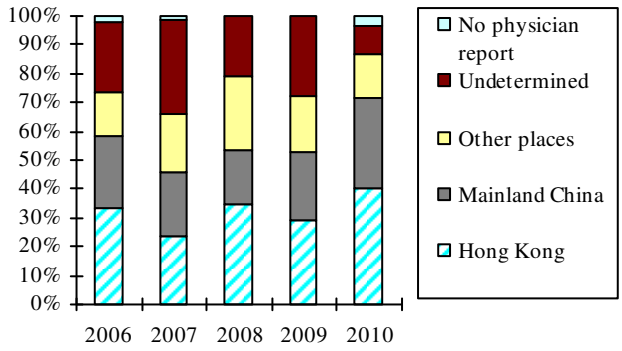
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Undetermined	0	0	1	4	1	1	0	0	0	0
>60	2	1	1	3	6	3	1	5	2	6
50-59	1	2	2	6	6	6	13	16	8	15
40-49	8	11	7	12	27	28	34	35	42	47
30-39	25	33	27	29	40	45	76	61	66	57
20-29	8	9	12	13	18	38	53	38	47	37
< 20	0	1	0	1	0	2	0	2	3	3

Box 1.5 Suspected location of HIV cases (2006 - 2010)

(a) MSM



(b) Heterosexual men



9. Efforts have been made to gauge the HIV prevalence among MSM in Hong Kong. Other than the second community-based survey (PRiSM) in gay saunas, bars and clubs conducted in 2008/09, an internet-based MSM survey (AIMSS) was conducted in 2010 and it revealed that among those who had an HIV test before, 5.46% of the sample reported to be positive for HIV, which was difficult to compare with the HIV prevalence estimated by PRiSM of 4.31% as the internet-based survey was based on self-reporting data rather than actual specimen collection for HIV test. The level of consistent condom use (as defined by condom usage in all sexual contacts in the last six months) with regular sex partners, casual sex partners and commercial sex partners were respectively 35%, 54% and 60%, which were lower as compared with those figures in PRiSM. On the other hand, rate of HIV testing within the last one year was 37%, comparable to the PRiSM finding of 36% in 2008. (Box 1.6) AIDS Concern's voluntary HIV testing service targeting MSM was another source to estimate the HIV prevalence in MSM, although the data was affected by participant bias to a larger extent. A rising HIV prevalence was observed since 2004 and appeared to peak in every 2-3 years afterwards. The pattern may be affected by the changes in coverage of HIV testing service across higher-risk MSM to average or lower-risk MSM populations during the period. (Box 3.8)

Box 1.6 Findings of internet-based MSM survey (AIMSS) 2010

Study design	Internet survey
Period	Jan to Feb 2010
Sample	1342 respondents living in Hong Kong
Ethnicity	Over 85% Chinese, 10% Caucasian
Age	12 to 67 (median 31)
Marital status	88% single, 10% married
Education	66% tertiary / university / postgraduate
Employment	Over 70% in full time employment
Disclosure of HIV status	Over 73% did not disclose
Multiple sex partnership	Overall 74% (38% in RSP; 86% in CaSP; 67% in CoSP)
Consistent condom use in past 6 months	Overall 40% (35% in RSP; 54% in CaSP; 60% in CoSP)
Group sex in past 6 months	24% had RSP in group sex; 40% had CaSP in group sex
Sex work in past 6 months	5% as money boy, 54% used condom consistently
Drug & alcohol use in past 6 months	About 13% used drugs before or during sex About 29% consumed alcohol before or during sex
STI in past 6 months	About 6% with any STIs
HIV testing	57% ever tested; 37% tested within past 12 months
Self-reported HIV positive	5.5%

Remark: RSP – regular sex partner; CaSP – casual sex partner; CoSP - commercial sex partner; STI – sexually transmitted infection

10. The consistent condom use rate of MSM attending AIDS Counselling and Testing Service with regular partners and casual partners increased markedly since 2007 and were 42% and 61% respectively in 2010, similar to the findings of the PRiSM in 2008 and AIMSS in 2010. The temporal trends observed for condom use in last anal sex among MSM were relatively less obvious in the corresponding period. On the other hand, the trends derived from MSM attending AIDS Concern's testing service increased in 2010 for both consistent condom use and condom use for last anal sex with any sex partners. (Box 5.5)

The number of heterosexual male cases decreased persistently

11. The number of heterosexual cases reported was 117 in 2010 which accounted for a about one-third of the reported cases, the same figure as in 2009 after a recent peak in 2008 (Box 2.5(a)). The proportion of heterosexual male cases among all reported HIV cases dropped from its peak of 57% in 1994 to 15% in 2010, a record low figure in the period. The male to female ratio for heterosexual cases also hit a record low level of 1.1:1 in 2010. The median age of heterosexual cases in 2010 was 38. Heterosexual male cases were mainly Chinese (68% in year 2010) whereas Chinese accounted for less than half (46% in year 2010) of female cases.

12. A majority of Social Hygiene Clinics attendees reported unprotected heterosexual contact from on-going behavioural surveys. The HIV prevalence of Social Hygiene Clinic attendees remained stable at below 0.3% (0.15% in 2010). On the other hand, the trend of sexually transmitted infections (STI) provides surrogate for the possible risk of HIV infection in the community. Although it had been estimated that Social Hygiene Clinics took care of about 20% of STI cases in the territory years back, it was still a very important sentinel site. It continued to record a decrease in the total number of STI cases in Social Hygiene Clinics, an aggregate of 12,344 in 2010 as compared with 13,689 cases in 2009. A drop of 9.8% was observed in overall STI diagnosis. The decrease of cases was more obvious in gonorrhea from 1,401 cases in 2009 to 968 cases in 2010, a more than 30% reduction. (Box 4.2)

13. In 2010, the consistent condom use rate among heterosexual men attending Social Hygiene Clinics with commercial / casual partners slightly decreased, i.e. at about 42% in past 3 months and a similar trend was also observed among those attending AIDS Counselling and Testing Service (ACTS), i.e. about 56% in past 12 months. Heterosexual men attending ACTS reported an even higher level of consistent condom usage with their commercial partners alone, i.e. 69%. (Box 5.4) Discrepancy was observed when the consistent condom use reported from client's side was compared with that from the sex worker's side. In the venue-based cross sectional survey of female sex worker (CRiSP) conducted in 2009, a higher condom use level was revealed among female sex workers in Hong Kong, that the consistent condom use rate for vaginal/anal sex with their male clients in past week was 91% after adjustment for various types of sex workers.

Small numbers of HIV infection but significant level of risky behaviours reported in injecting drug users

14. In 2010, the reporting system recorded 15 cases of HIV transmission through injecting drug use, which accounted for 3.9% of all cases. The number was the same as previous year but significantly smaller than that of 2008, and returned to a similar level prior to 2004. (Box2.5(a)) Most (60%) of the cases were Asian, non-Chinese. The median age was 38. Only 3 out of the 15 injecting drug user cases were reported from methadone clinics while 4 others were reported from Correctional Institutions.

15. The Universal HIV Antibody (Urine) Testing Programme (MUT) in 2004 replaced the unlinked anonymous screening (UAS) in methadone clinic to enhance HIV surveillance as well as individual diagnosis and care of the infected. A total of 7,038 attendees participated in the programme in 2010 with a HIV testing coverage of 77%, a lower coverage rate than that of 81% in 2009. The programme tested 7,429 urine samples, with 20 positive attendees in 2010 and 16 other previously known positive cases still attending methadone clinics. Hence, totally there were 36 HIV positive drug users attending methadone clinic this year. The HIV prevalence over the years was stable at below 1%. The HIV prevalence of methadone clinic attendees in 2010 was 0.48%, which remained at a similar level as in previous years. (Box 3.3)

16. While HIV infection remained uncommon among drug users in 2010 as reflected from surveillance data at methadone clinics, the potential risk of HIV upsurge in drug-using community cannot be neglected as a significant proportion of drug users were currently

injecting drugs, from about 25% to as high as over 80% across different surveys. (Box 5.6) Various surveys revealed different proportions of current needle sharing among those who were current drug injectors, ranging from 0% to 30%, presumably due to the differences in the nature of samples, survey methodology as well as in the timeframe it was measuring. (Box 5.7)

Three cases of perinatal transmission recorded

17. In 2010, there was no case reported to be blood transfusion transmission. No HIV infection as occurred locally from contaminated blood or blood product was reported in recent years. The HIV prevalence of new blood donors at Hong Kong Red Cross Blood Transfusion Service was at a low level of 0.005% in 2010 (Box 3.1(b)).

18. In 2010, there were three perinatal HIV infections reported. The Universal Antenatal HIV Testing was implemented in September 2001. Over 40,000-50,000 pregnant women attending public antenatal services were tested every year and the coverage of the programme reached 98.6% in 2010 and revealed the prevalence of HIV infection in pregnant women to be 0.02%, which remained at a low level as in previous years. Ten pregnant women were tested positive in the programme this year. (Box 3.7(b)) Three women terminated their pregnancies, while one case was without sufficient information. All of the remaining six women delivered their babies by Caesarean Sections. Of these 6 newborn babies, five were put on anti-retroviral chemoprophylaxis while one remaining case was without sufficient information. None of the babies was confirmed to have HIV infection at the time of report writing.

From cases with undetermined risk factor to their reconstruction

19. The information of voluntary reporting was becoming more incomplete which posed the risk of skewing the whole epidemic picture as there are an increasing proportion of cases reported without a risk factor. More than 20% of the cases reported in 2010 did not have a suspected route of transmission reported. In order to factor in the weightings of undetermined risk cases, to assess the risk for local transmission and to guide appropriate actions for prevention, Dr. Tim Brown, a renowned HIV epidemiologist as an external consultant, was engaged to address the increasing problem of expanding cases with undetermined risk factors by systematically reconstructing them.

20. The 26-year (1984-2009) data was retrospectively extracted from the database under the voluntary and anonymous HIV/AIDS reporting system for comparative analysis. By using multivariate analysis, cases of undetermined risk factors were independently associated with the absence of formal notification using HIV/AIDS report form (Appendix I) by physicians; the reporting sources of public (consists mostly of public hospitals, and small contribution by maternal & child health clinics, tuberculosis & chest clinics and correctional services department clinics) and private sector; female gender; non-Chinese ethnicity and older age groups. (Box 1.7)

Box 1.7 Factors associated with cases of undetermined risk factors. (1984 - 2009)

Factors associated with undetermined risk		ORu (95% CI)		ORm (95% CI)	
HIV/AIDS report form					
	Yes	1.00		1.00	
	No	22.67	(18.5, 27.78)***	42.74	(32.2, 56.55)***
HIV report source					
	Others#	1.00			
	Public^	8.93	(6.29, 12.67)***	12.84	(8.65, 19.07)***
	Private	24.21	(16.98, 34.53)***	12.11	(8.12, 18.07)***
Gender					
	Male	1.00		1.00	
	Female	1.97	(1.65, 2.35)***	1.48	(1.12, 1.95)**
Ethnicity					
	Chinese	1.00		1.00	
	Non-Chinese	2.93	(2.5, 3.44)***	1.67	(1.31, 2.12)***
Age at HIV report (yrs)					
	<20	1.00		1.00	
	20-29	4.89	(1.53, 15.64)**	9.84	(2.92, 33.1)***
	30-39	5.77	(1.81, 18.36)**	14.80	(4.43, 49.43)***
	40-49	5.62	(1.75, 18.02)**	15.08	(4.46, 51.01)***
	50-59	5.74	(1.76, 18.75)**	19.10	(5.49, 66.41)***
	60-69	7.20	(2.14, 24.15)**	29.64	(8.1, 108.54)***
	70+	9.49	(2.67, 33.73)**	70.66	(9.93, 136.26)***
Subtype					
	B	1.00		1.00	
	C	3.38	(2.07, 5.53)***	1.14	(0.52, 2.51)
	CRF01_AE	1.56	(1.21, 2.01)**	0.95	(0.65, 1.37)
	CRF07_BC	1.38	(0.71, 2.69)	1.10	(0.44, 2.79)
	CRF08_BC	2.54	(1.32, 4.9)**	0.80	(0.31, 2.06)

Note: ORu – Odds ratio was calculated univariately
ORm – Odds ratio was calculated multivariately
*p<0.05; **p<0.01; ***p<0.001
#including DH's AIDS Unit; AIDS Service Organizations; Social Hygiene Clinic; Methadone Clinic, Hong Kong Red Cross Blood Transfusion Service; Drug Rehabilitation Service
^Public sector consists mostly of public hospitals, and small contribution by maternal & child health clinics, tuberculosis & chest clinics and correctional services department clinics

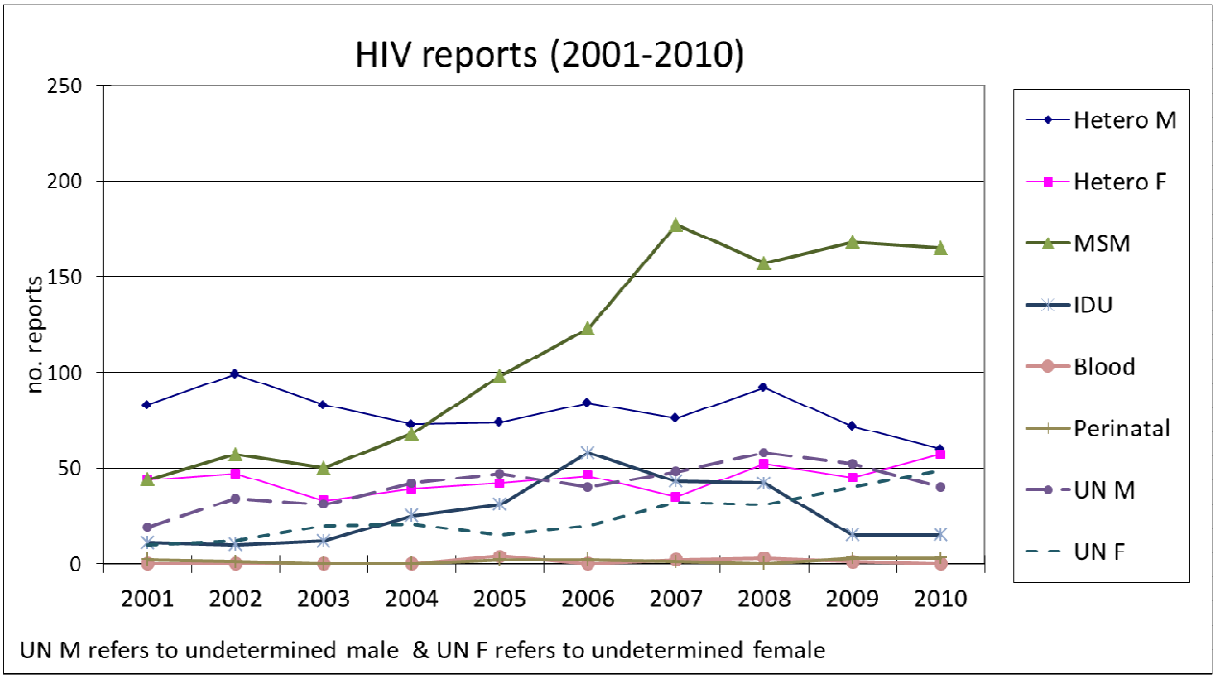
21. Reconstruction was carried out by assigning one suitable risk factor of transmission to the undetermined cases. After the analysis of the features of these cases with undetermined risk factor and the prevailing epidemic, it was assessed that all female infections shall be assumed to be heterosexual transmission, unless there is clear indication suggesting otherwise. As for the male cases of undetermined risk factor, it was assessed that they shall

be assumed to be either heterosexual contact or homosexual contacts as the risk factor of transmission, subject to the observed ratio in the prevailing year between heterosexual and homosexual contact in the cases with determined risk factors, providing there is no other indication suggesting otherwise.

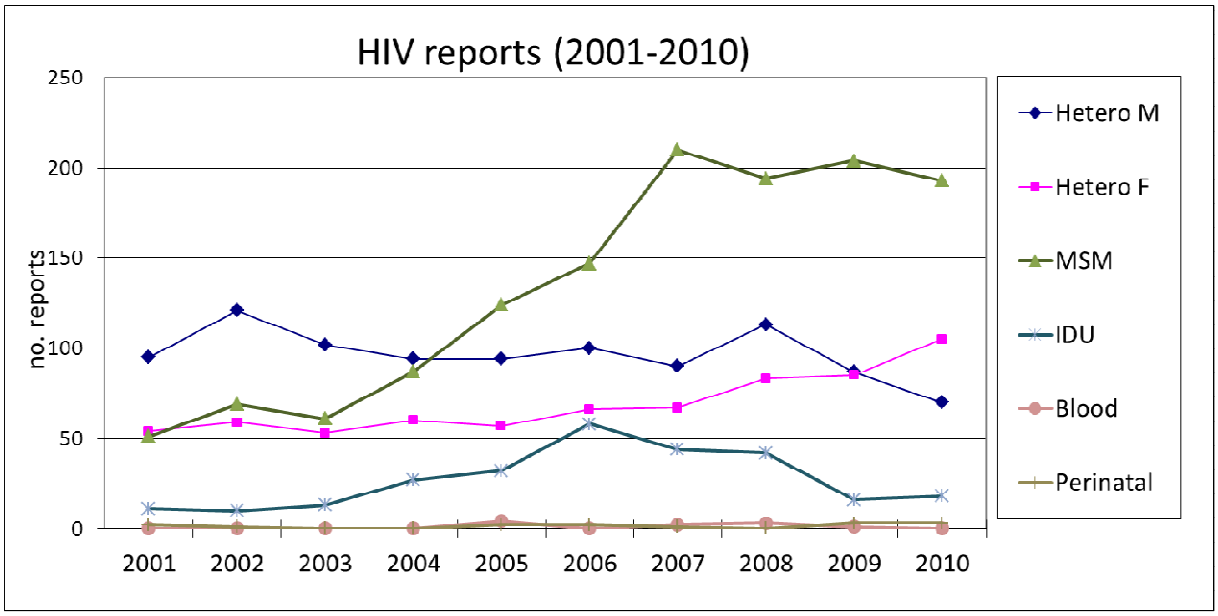
22. By using the above methodology of reconstruction which was presented in the Scientific Committee on AIDS and STI in 2010, a modified epidemic was constructed by applying our local 10-year data from 2001 to 2010. In comparison to the pre-reconstruction phase where undetermined male and female cases were included as a representation of the undetermined cases over the captioned period (Box 1.8(a)), a discernible pattern is observed for heterosexual female and MSM, showing marked increases since 2005 and 2003 respectively. The change in heterosexual male appears to be relatively modest and the number of cases even dropped since 2008 to record low level in the 10-year period. (Box 1.8(b))

23. The suggested method provides one possible solution to fill the gap in surveillance information, although it might simplify the complex determinants of the local epidemic. Yet, it makes the whole reconstruction exercise practical by applying reasonable, quick and easy assumptions. For certain, effort to promote a more complete return of information regarding each HIV report should be encouraged.

Box 1.8(a) HIV reports before risk factor reconstruction (2001-2010)



Box 1.8(b) HIV reports after risk factor reconstruction (2001-2010)



Regular HIV testing before diagnosis was a rarity

24. The HIV/AIDS Report Form (DH2293) was revised in March 2010 and become available for reporting use since July 2010, where one data field was added to capture the previously negative HIV result among the newly diagnosed, which could better inform the epidemiology of those recently HIV-seroconverted. Among 183 cases reported between July to December 2010, data of the HIV/AIDS Report Form was available in 138 cases and among them, only 50 cases (36%) had previously negative HIV results, which implied regular testing among HIV patients before their diagnoses was rare. Nine cases (6.5%) had previously negative HIV results within one year of the HIV diagnosis, i.e. recently HIV seroconverted. However, it was not possible to judge whether the cases with previously negative HIV results beyond one year of HIV diagnosis were recently HIV seroconverted or not, as the observation was limited by the infrequent testing behaviour. Data incompleteness was also a concern for interpreting the findings and given its small numbers, segregation between different exposure categories was not carried out.

Pneumocystis Pneumonia and *Tuberculosis* remained the commonest Primary AIDS Defining Illnesses

25. The annual number of reported AIDS cases has been dropping since 1997, the year of introducing highly active antiretroviral therapy (HAART) in Hong Kong but a slowly increasing trend was observed since 2005. A total of 79 AIDS cases were reported in 2010 as compared

with 76 cases in 2009 (Box 2.5(b)). Majority (96%) of the AIDS reports in the year had their AIDS diagnosis within 3 months of HIV diagnosis, suggesting late presentation of the cases.

26. The primary AIDS defining illness (ADI) pattern of the reported cases also changed slightly in recent years. *Pneumocystis jirovechi* pneumonia (previously named *Pneumocystis carinii*) was the commonest ADI in Hong Kong in 2010 which accounted for 36 cases (45.6%), an increase of over 3.5% in terms of the proportion of ADI as compared with 2009. This year, 20 cases (25.3%) reported *Mycobacterium tuberculosis* as the primary ADI which was following right after *Pneumocystis jirovechi* pneumonia as the second commonest ADI. They were followed by Fungal infections including *penicilliosis* (11, 13.9%), and *Cytomegalovirus* diseases (3, 3.8%). (Box 2.8) Because of the good coverage from universal voluntary testing at TB & Chest Clinics, it has literally replaced unlinked anonymous screening since 2009 in informing the HIV prevalence among TB patients. In 2010, the HIV prevalence in patients attending government TB & Chest Clinics was 0.7%, consistently higher than many at-risk populations. (Box 3.6(b))

27. The median CD4 of newly reported HIV cases in 2010 was 211/ul, which was lower than previous year, as was the proportion with CD4>=200/ul. Reporting of CD4 level was becoming a routine practice in physician. It provided useful information on the timing of diagnosis in the course of HIV infection. In 2010, 72.5% of HIV cases had their CD4 level at diagnosis reported, which remained stable as compared with previous years. (Box 1.9) The median CD4 for those aged less than 55 has been stable at around 250 (219 – 302) for the past 5 years. One the other hand, the median CD4 count among those who are aged 55 and above was consistently lower, suggesting that more patients reported at age 55 or above were diagnosed at a late disease stage. (Box 2.0)

Box 1.9 – Reported CD4 levels at HIV diagnosis

Year	No. of HIV reports	No. of CD4 reports (%)	Median CD4 (cell/ul)	CD4>=200 (cell/ul) (%)
2001	213	162 (76.1%)	233.5	85 (52.5%)
2002	260	201 (77.3%)	197	100 (49.8%)
2003	229	166 (72.5%)	205	85 (51.2%)
2004	268	181 (67.5%)	206	95 (52.5%)
2005	313	230 (73.5%)	197	114 (49.6%)
2006	373	281 (75.3%)	225	152 (54.1%)
2007	414	309 (74.6%)	241	173 (56.0%)
2008	435	303 (69.7%)	193	148 (48.8%)
2009	396	278 (70.2%)	278.5	175 (62.9%)
2010	389	282 (72.5%)	211	146 (51.8%)

Box 2.0 – CD4 Reports by age group*

Age	Year	No. of HIV reports	No. of CD4 reports (%)		Median CD4 (cell/ul)	% of CD4 >= 200 (cell/ul)
<55	2001	190	146	(76.8%)	258.5	54.1%
	2002	230	183	(79.6%)	196	49.7%
	2003	190	139	(73.2%)	228	52.5%
	2004	225	160	(71.1%)	217.5	55.0%
	2005	281	207	(73.7%)	196	49.3%
	2006	341	255	(74.8%)	241	56.9%
	2007	377	284	(75.3%)	254	57.7%
	2008	380	260	(68.4%)	219	52.7%
	2009	357	249	(69.7%)	302	67.1%
	2010	353	251	(71.1%)	220	53.0%
>=55	2001	22	16	(72.7%)	96	37.5%
	2002	24	18	(75.0%)	212.5	50.0%
	2003	32	27	(84.4%)	108	44.4%
	2004	32	21	(65.6%)	82	33.3%
	2005	29	23	(79.3%)	223	52.2%
	2006	29	26	(89.7%)	154.5	26.9%
	2007	33	25	(75.8%)	90	36.0%
	2008	53	43	(81.1%)	74	25.6%
	2009	38	29	(76.3%)	72	27.6%
	2010	36	31	(86.1%)	153	41.9%

*: there may be a slight discrepancy between the sum of individual reports in Box 2.0 and the figures in showed in Box 1.9 because of unknown age.

The commonest HIV-1 subtypes were CRF01_AE and B, with growing genetic diversity

28. In 2010, about 85% of HIV reports had their subtypes documented, at a comparable level as in the past years. (Box 6.1) Subtype CRF01_AE and B of HIV-1 strains remained the first and second most common subtypes identified in Hong Kong, respectively at 45% and 38% of all cases having subtype identified from 2001 to 2010. In 2010, they together accounted for 75% of all HIV cases with subtype documented. (Box 6.2) Over the past years, CRF_01AE was consistently found to be commoner in female, Asian non-Chinese, heterosexuals and IDU. (Box 6.4) On the other hand, subtype B was commoner in male, Chinese, Caucasian, and MSM. (Box 6.5) Subtype C was relatively uncommon to identify, but they appeared to be often found in female, Asian and heterosexual cases despite its small number of total cases with Subtype C. (Box 6.6) An increasing diversity of subtypes and its circulating recombinant forms was also noted, in particular since 2009. (Box 6.2)

Discussion

29. The number of HIV reports remained at a high level in 2010, despite a modest drop in recent two years, while the annual HIV reports used to be less than or around 300 before 2006. The total number of HIV reports in 2010 was 389, which was down for about 2% as compared to 2009. In the last few years, there was 5-20% increase in HIV reports every year except in 2003, when SARS outbreak occurred, leading to a drop in reporting. The increasing reports from Men who have Sex with Men (MSM) continued to keep the HIV reports at a high level. Although heterosexual contact appeared to have a rebound in 2008, this was soon dominated again by MSM. The increase of cases in injecting drug users in 2008 was observed to be calming down in 2009 and 2010, but it remained a challenge for both surveillance effort and intervention when the high level of risky behaviours continued, particularly in view of the considerable proportion of needle sharing among injecting drug users as captured by some cross-sectional surveys.

30. The number of HIV reports among MSM continued to play a significant role and it accounted for consistently the largest proportion of cases every year since 2007. The HIV situation in MSM was still worrisome because of the persistently high trend of infection. By reconstruction methodology, the cases of undetermined risk factor were assigned with the best possible exposure categories, which allowed us to visualize a more dramatic picture of increase in HIV infection among MSM. The second community-based HIV prevalence survey in 2008/09 revealed a slightly higher HIV prevalence of 4.31% when compared with the previous study in 2006. A more recent internet-based MSM survey in 2010 unveiled an even more worrying findings of 5.5% of respondents reporting positive for HIV, despite absence of actual specimen collection for confirmation. Both condom usage rates of MSM with casual and regular partners remained at lower levels than those of heterosexual at-risk populations. Reporting data, prevalence data and behavioural data all suggested an unrelenting local HIV epidemic in MSM. The observation was in keeping with the regional picture of rising MSM HIV epidemic among neighboring cities and countries, which should not be taken lightly.

31. Heterosexual transmission appeared to be on a stable trend over the years although the number of cases appeared to increase in 2008 which was soon settled back in 2009 and 2010. A significant proportion of non-Chinese female cases suggested that some infections might have occurred outside Hong Kong. Upon reconstruction of undetermined female cases, it showed an even more obvious increase for female heterosexual cases, in conjunction with the record low level of male to female ratio of heterosexual infection, all suggesting efforts in surveillance for this female group as well as its preventive actions need to be strengthened and sustained. The HIV prevalence in social hygiene clinics attendees and antenatal women were all below 1% and 0.1% respectively. However, despite improvement in recent years, consistent condom use rates of commercial / casual sex especially gauged from the reports of clients remained far from satisfactory.

32. Although the number of HIV-infected injecting drug user reports dropped in recent two years as compared to the past, there is no room for complacency given the prevalence of injection and needle-sharing risk behaviours. The dropping HIV testing coverage in methadone clinics was a potential threat that infected drug users might go undetected. Same as in 2009, most of the infected drug users were Asian non-Chinese in 2010. It was

believed that they acquired the infection outside Hong Kong. The number of HIV infections in drug users contributed by local infections was largely similar to previous years.

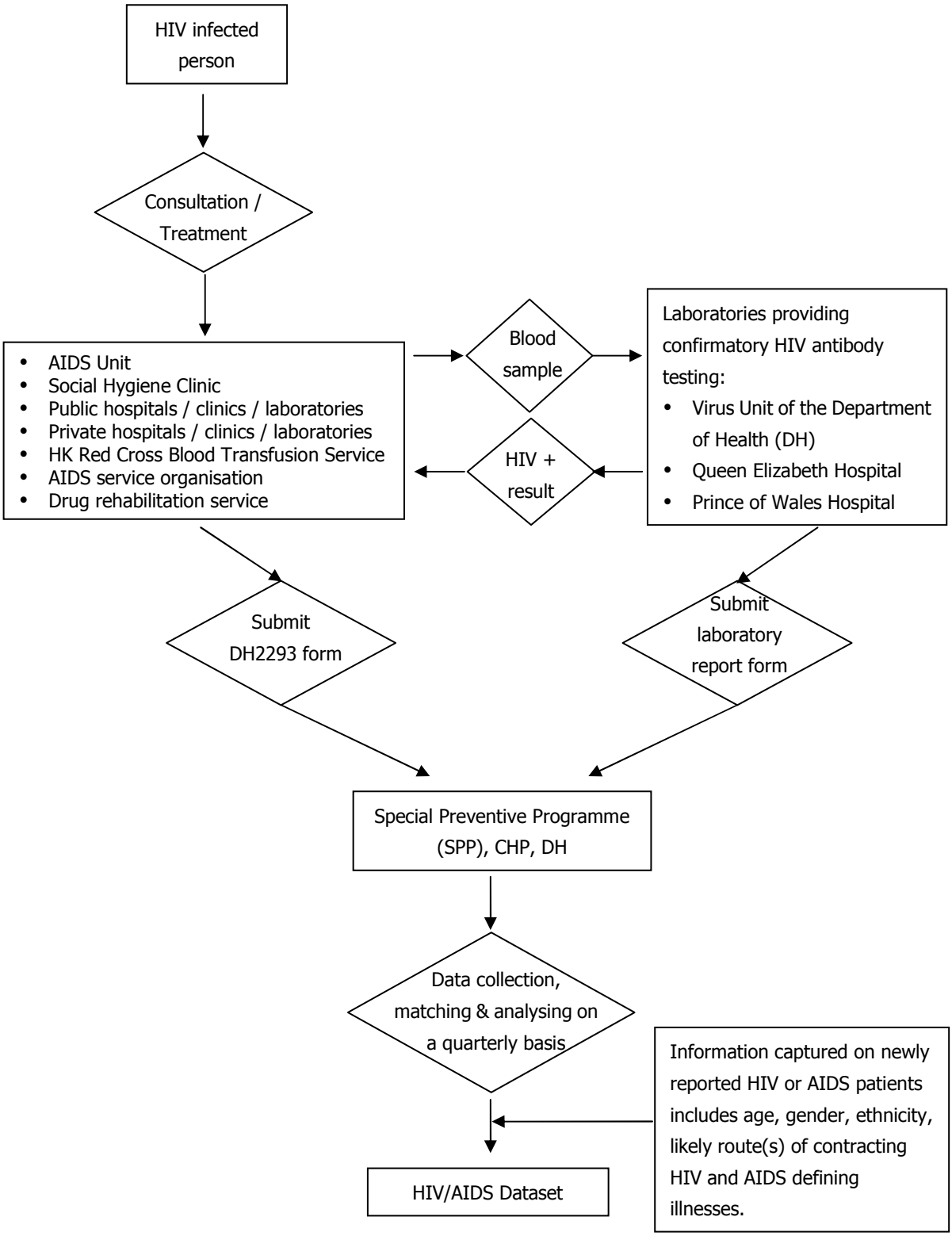
33. In conclusion, newly reported HIV infections in Hong Kong stayed on a high level although the rate of increase seemed to be calming down. Yet, the number of MSM infection was still on an increasing trend and continued to dominate the epidemic in Hong Kong. The situation of heterosexual population and local injecting drug user population was relatively stable thus far. HIV epidemiology in Hong Kong was also affected by the situation of neighbouring countries and cross border travel. A considerable proportion of cases were infections which had been acquired outside Hong Kong. Judging from the low HIV testing behaviour prior to diagnosis of the cases as revealed by the data on previous negative HIV results, and the dropping HIV testing coverage in certain most-at-risk population such as the drug users, it was possible that patients with HIV infections might left undiagnosed until late in the disease course. The number of people living with HIV in 2010 was estimated to be about 4000, based on the HIV estimation and projection using Asian Epidemic Model. With various sources of data, HIV prevalence was estimated to remain at less than 0.1% among the general population in Hong Kong.

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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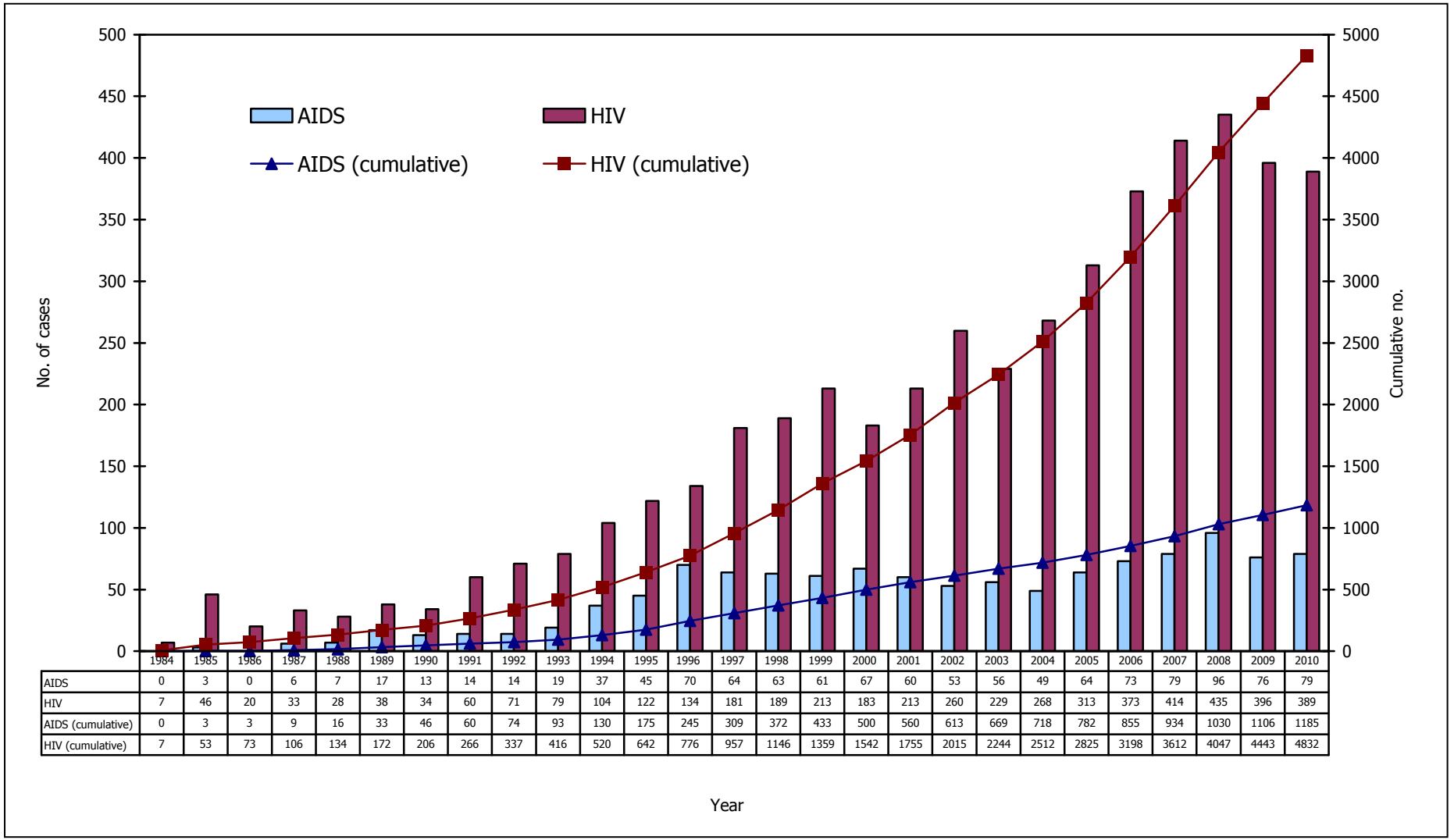
Box 2.1 Annual and cumulative reports of HIV/AIDS cases

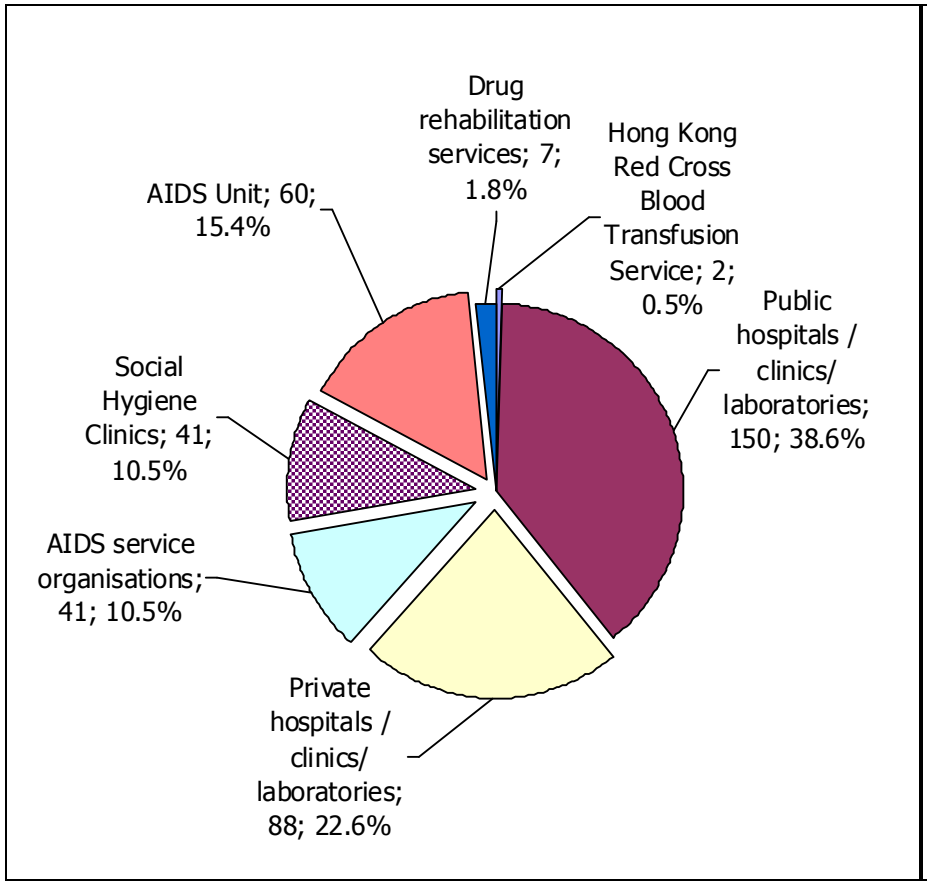


	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
AIDS	0	3	0	6	7	17	13	14	14	19	37	45	70	64	63	61	67	60	53	56	49	64	73	79	96	76	79
HIV	7	46	20	33	28	38	34	60	71	79	104	122	134	181	189	213	183	213	260	229	268	313	373	414	435	396	389
AIDS (cumulative)	0	3	3	9	16	33	46	60	74	93	130	175	245	309	372	433	500	560	613	669	718	782	855	934	1030	1106	1185
HIV (cumulative)	7	53	73	106	134	172	206	266	337	416	520	642	776	957	1146	1359	1542	1755	2015	2244	2512	2825	3198	3612	4047	4443	4832

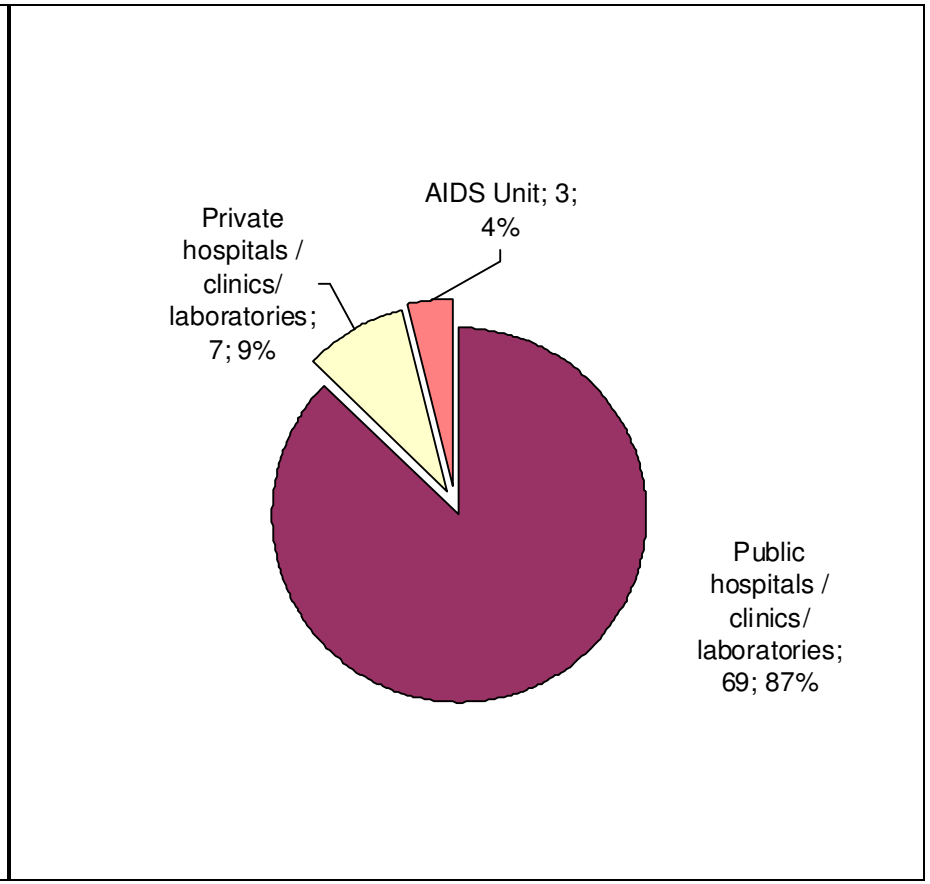
Box 2.2 Source of reporting of HIV/AIDS cases

(a) Year 2010

(i) HIV

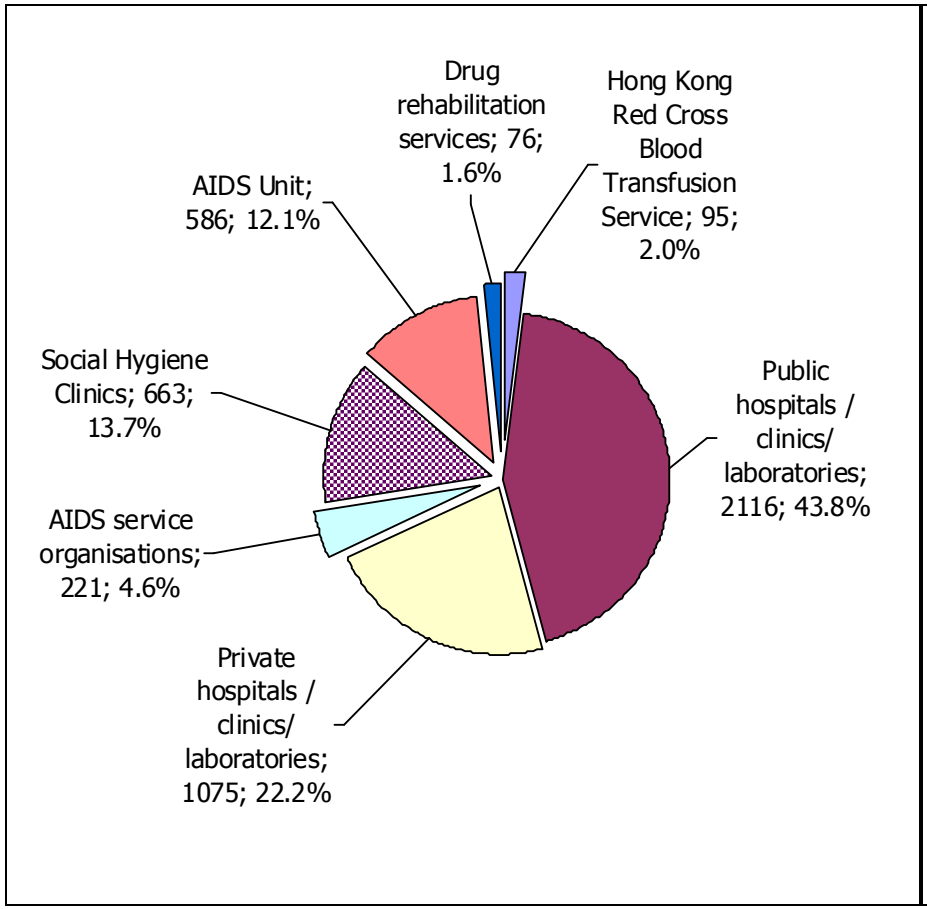


(ii) AIDS

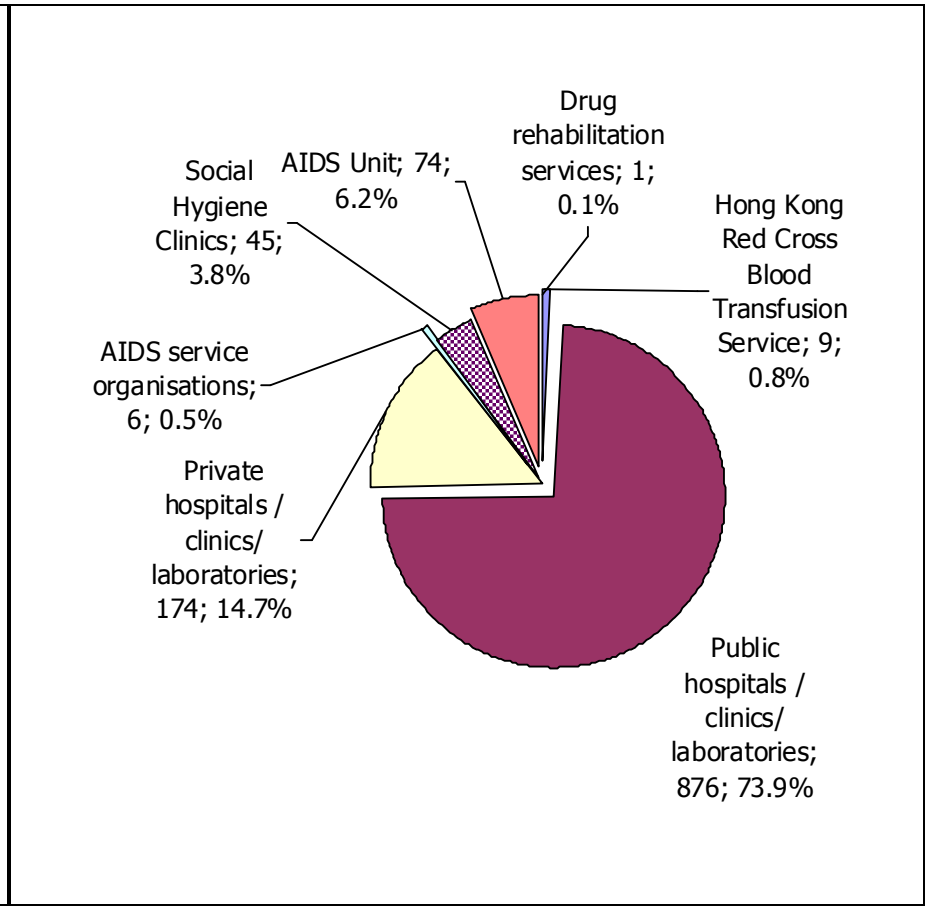


(b) Cumulative (1984 - 2010)

(i) HIV



(ii) AIDS



Box 2.3 Ethnicity & gender of reported HIV/AIDS cases

(a) Year 2010

Ethnicity	HIV						AIDS					
	Male		Female		Total		Male		Female		Total	
Chinese	213	(75.8%)	35	(32.4%)	248	(63.8%)	54	(83.1%)	8	(57.1%)	62	(78.5%)
Asian	27	(9.6%)	24	(22.2%)	51	(13.1%)	9	(13.8%)	6	(42.9%)	15	(19.0%)
White	19	(6.8%)	1	(0.9%)	20	(5.1%)	2	(3.1%)	0	(0.0%)	2	(2.5%)
Black	6	(2.1%)	11	(10.2%)	17	(4.4%)	0	(0.0%)	0	(0.0%)	0	(0.0%)
Unknown	16	(5.7%)	37	(34.3%)	53	(13.6%)	0	(0.0%)	0	(0.0%)	0	(0.0%)
Total	281	(100.0%)	108	(100.0%)	389	(100.0%)	65	(100.0%)	14	(100.0%)	79	(100.0%)

(b) Cumulative (1984 - 2010)

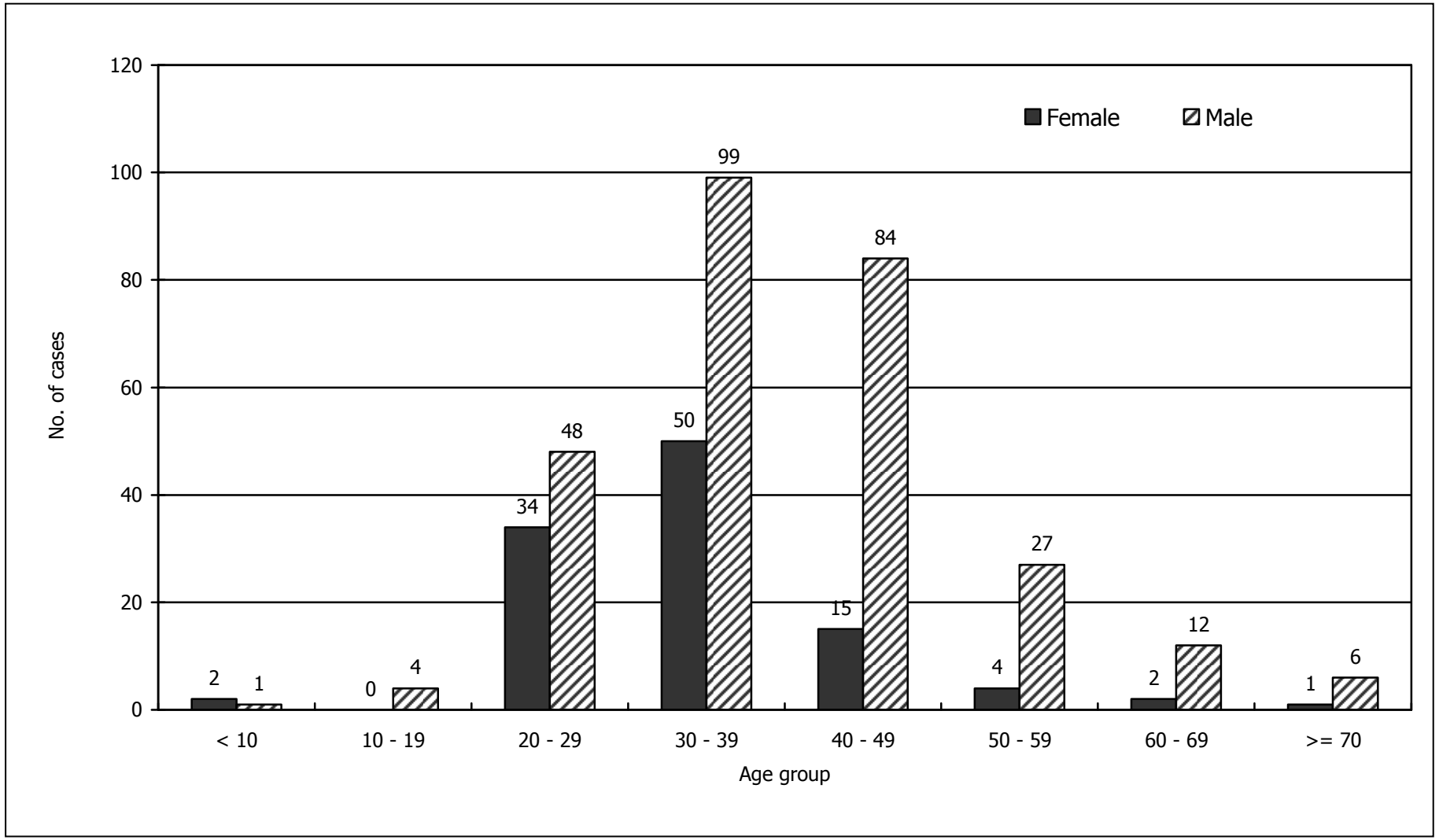
Ethnicity	HIV						AIDS					
	Male		Female		Total		Male		Female		Total	
Chinese	2804	(72.7%)	398	(40.8%)	3202	(66.3%)	837	(82.9%)	81	(46.3%)	918	(77.5%)
Asian	486	(12.6%)	346	(35.5%)	832	(17.2%)	87	(8.6%)	89	(50.9%)	176	(14.9%)
White	320	(8.3%)	19	(1.9%)	339	(7.0%)	74	(7.3%)	2	(1.1%)	76	(6.4%)
Black	59	(1.5%)	30	(3.1%)	89	(1.8%)	12	(1.2%)	3	(1.7%)	15	(1.3%)
Unknown	188	(4.9%)	182	(18.7%)	370	(7.7%)	0	(0.0%)	0	(0.0%)	0	(0.0%)
Total	3857	(100.0%)	975	(100.0%)	4832	(100.0%)	1010	(100.0%)	175	(100.0%)	1185	(100.0%)

Box 2.4 Age distribution of reported HIV/AIDS cases

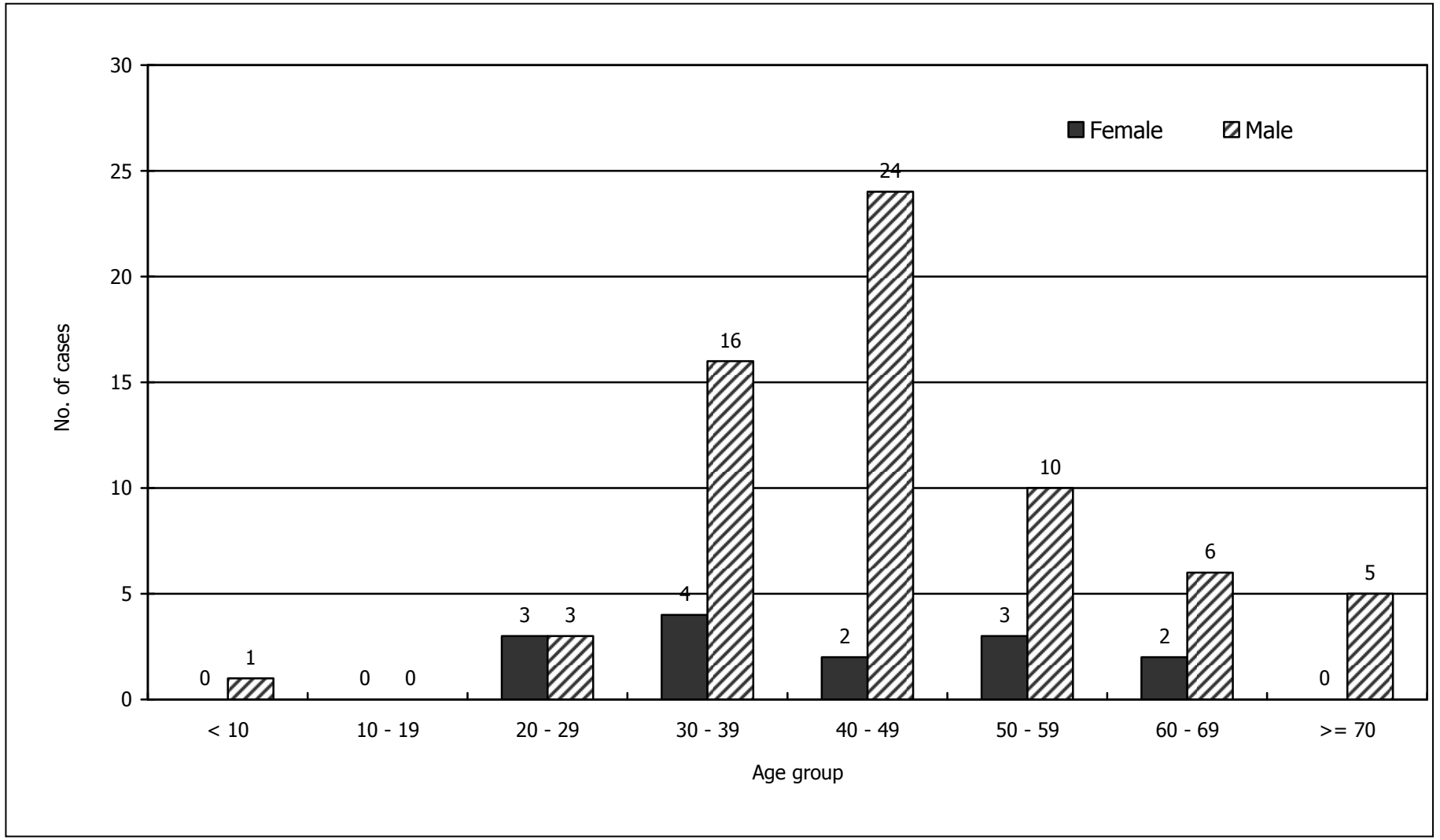
(a) Median age of reported HIV/AIDS cases

Year	HIV			AIDS		
	Median age	Inter quartile range		Median age	Inter quartile range	
		25%	75%		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	35.25	51.25
1988	35	25.75	42.25	39	24	43
1989	36	28	46	38	31.5	46.5
1990	33	28	39	35	28.5	50.5
1991	31.5	26	39.75	34	27	44
1992	34	28	40	39	34.75	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	31.75	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	30.25	46.75
2002	36	30	44	41	34	48
2003	36	30	45	39	35	49.75
2004	36	30	44.5	42	35	51
2005	36	30	44	40	33.25	47.75
2006	34	28	42	38	31	47
2007	34	29	41	41	34	51
2008	36	29	45	41	34	54
2009	36	29	44	41	34	51
2010	36	30	44	42	37	53
Total	35	29	43	39	33	48

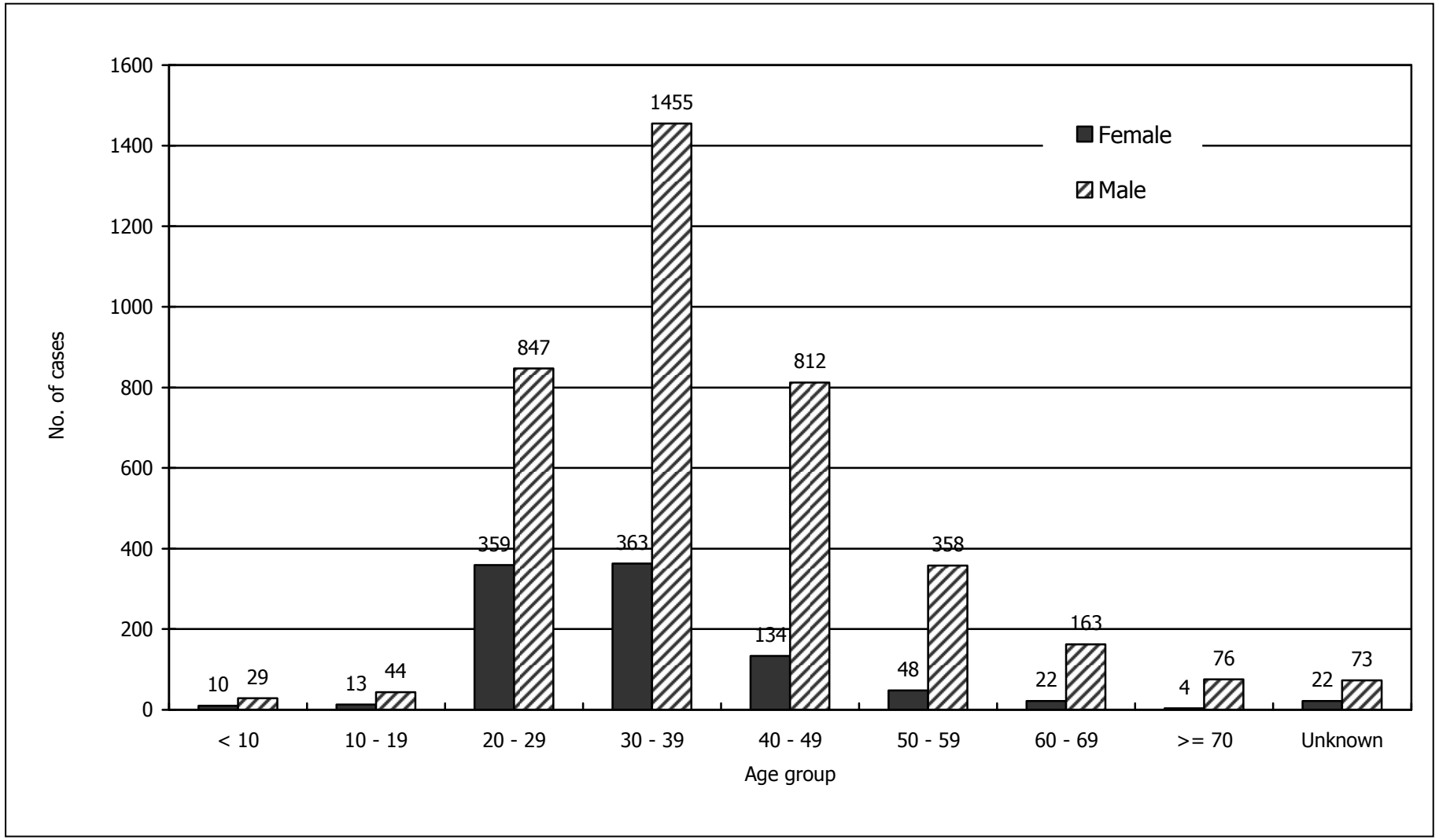
(b) Age & gender of reported HIV cases (Year 2010)



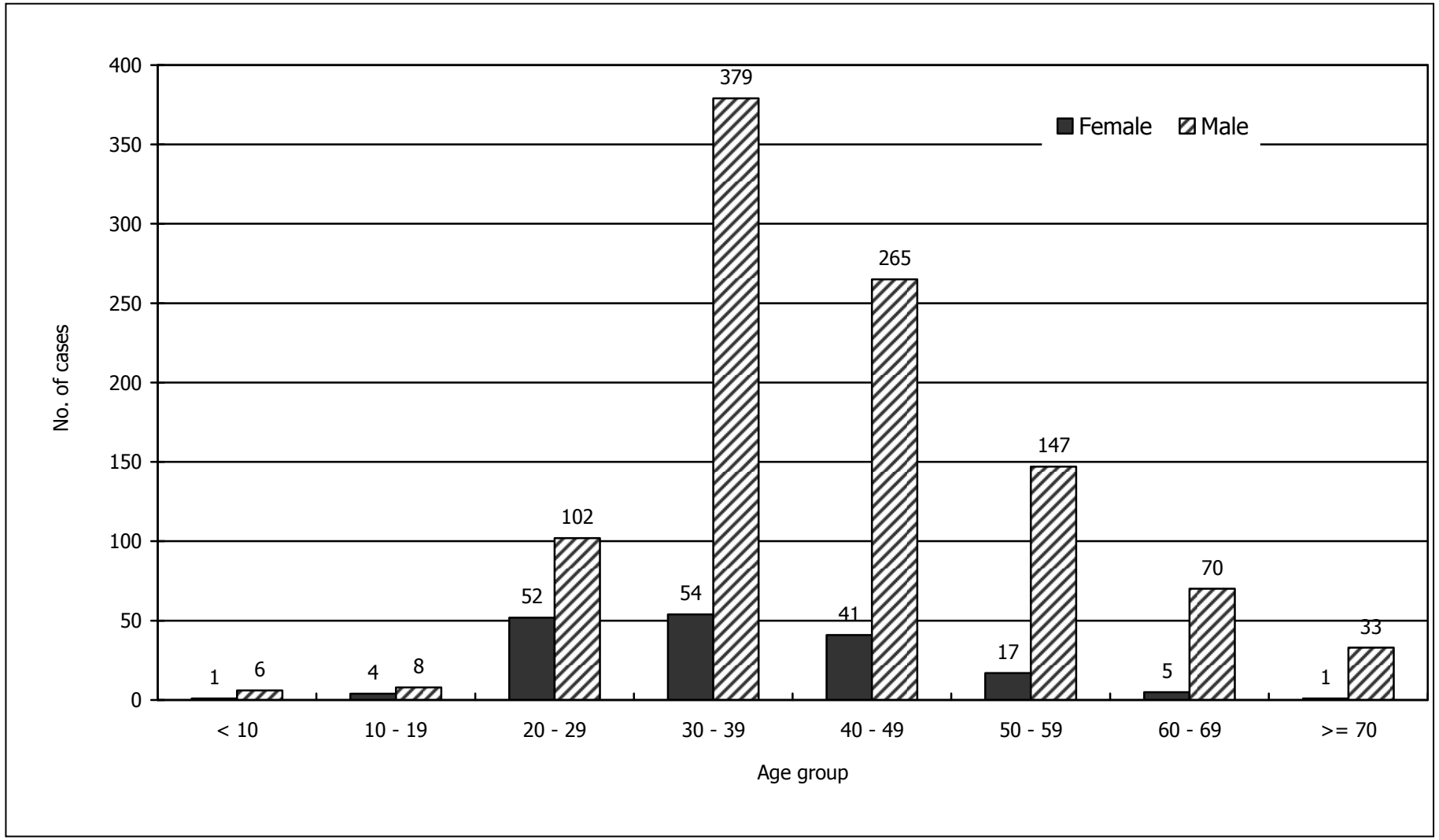
(c) Age & gender of reported AIDS cases (Year 2010)



(d) Age & gender of reported HIV cases (cumulative, 1984 - 2010)



(e) Age & gender of reported AIDS cases (cumulative, 1985 - 2010)



(f) Adults & children with reported HIV/AIDS in 2010

Age	HIV			AIDS		
	Male	Female	Total	Male	Female	Total
Adult	280	106	386	64	14	78
Children (age <=13)	1	2	3	1	0	1
Total	281	108	389	65	14	79

Box 2.5 Exposure category of reported HIV/AIDS cases

(a) Distribution of reported HIV cases by exposure category (1984 - 2010)

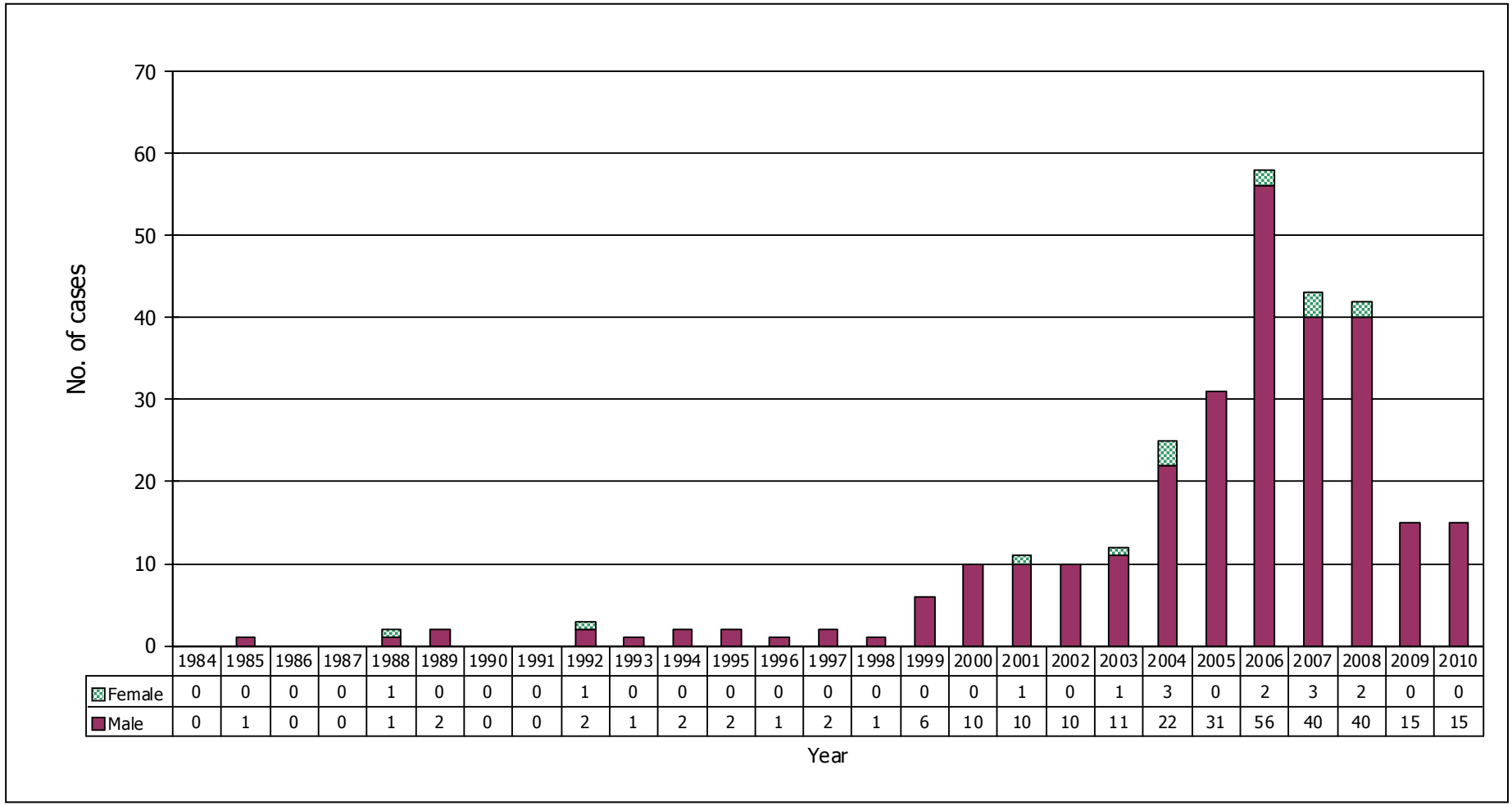
Year / Exposure Category (%)	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	Total
Heterosexual	1 (14.3)	0 (0.0)	0 (0.0)	3 (9.1)	6 (21.4)	11 (28.9)	12 (35.3)	29 (48.3)	32 (45.1)	47 (59.5)	73 (70.2)	81 (66.4)	94 (70.1)	117 (64.6)	135 (71.4)	127 (59.6)	115 (62.8)	127 (59.6)	146 (56.2)	116 (50.7)	112 (41.8)	116 (37.1)	130 (34.9)	111 (26.8)	144 (33.1)	117 (29.5)	117 (30.1)	2119 (43.9)
Homosexual	1 (14.3)	10 (21.7)	6 (30.0)	12 (36.4)	12 (42.9)	15 (39.5)	8 (23.5)	18 (30.0)	27 (38.0)	20 (25.3)	22 (21.2)	26 (21.3)	20 (14.9)	33 (18.2)	16 (8.5)	34 (16.0)	22 (12.0)	37 (17.4)	48 (18.5)	45 (19.7)	62 (23.1)	87 (27.8)	108 (29.0)	159 (38.4)	139 (32.0)	159 (40.2)	142 (36.5)	1288 (26.7)
Bisexual	0 (0.0)	1 (2.2)	2 (10.0)	7 (21.2)	2 (7.1)	6 (15.8)	5 (14.7)	8 (13.3)	2 (2.8)	2 (2.5)	4 (3.8)	4 (3.3)	3 (2.2)	10 (5.5)	6 (3.2)	10 (4.7)	7 (3.8)	7 (3.3)	9 (3.5)	5 (2.2)	6 (2.2)	11 (3.5)	15 (4.0)	18 (4.3)	18 (4.1)	9 (2.3)	23 (5.9)	200 (4.1)
Injecting drug use	0 (0.0)	1 (2.2)	0 (0.0)	0 (0.0)	2 (7.1)	2 (5.3)	0 (0.0)	0 (0.0)	3 (4.2)	1 (1.3)	2 (1.9)	2 (1.6)	1 (0.7)	2 (1.1)	1 (0.5)	6 (2.8)	10 (5.5)	11 (5.2)	10 (3.8)	12 (5.2)	25 (9.3)	31 (9.9)	58 (15.5)	43 (10.4)	42 (9.7)	15 (3.8)	15 (3.9)	295 (6.1)
Blood contact	5 (71.4)	32 (69.6)	10 (50.0)	7 (21.2)	2 (7.1)	2 (5.3)	5 (14.7)	0 (0.0)	1 (1.4)	1 (1.3)	1 (1.0)	0 (0.0)	0 (0.0)	1 (0.6)	0 (0.0)	2 (0.9)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	4 (1.3)	0 (0.0)	2 (0.5)	3 (0.7)	1 (0.3)	0 (0.0)	79 (1.6)
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)	0 (0.0)	0 (0.0)	1 (1.0)	2 (1.6)	1 (0.7)	0 (0.0)	2 (1.1)	4 (1.9)	2 (1.1)	2 (0.9)	1 (0.4)	0 (0.0)	0 (0.0)	2 (0.6)	2 (0.5)	1 (0.2)	0 (0.0)	3 (0.8)	3 (0.8)	26 (0.5)
Undetermined	0 (0.0)	2 (4.3)	2 (10.0)	4 (12.1)	4 (14.3)	2 (5.3)	4 (11.8)	5 (8.3)	6 (8.5)	8 (10.1)	1 (1.0)	7 (5.7)	15 (11.2)	18 (9.9)	29 (15.3)	30 (14.1)	27 (14.8)	29 (13.6)	46 (17.7)	51 (22.3)	63 (23.5)	62 (19.8)	60 (16.1)	80 (19.3)	89 (20.5)	92 (23.2)	89 (22.9)	825 (17.1)
Total	7 (100)	46 (100)	20 (100)	33 (100)	28 (100)	38 (100)	34 (100)	60 (100)	71 (100)	79 (100)	104 (100)	122 (100)	134 (100)	181 (100)	189 (100)	213 (100)	183 (100)	213 (100)	260 (100)	229 (100)	268 (100)	313 (100)	373 (100)	414 (100)	435 (100)	396 (100)	389 (100)	4832 (100)

(b) Distribution of reported AIDS cases by exposure category (1985 - 2010)

Year / Exposure Category (%)	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	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)	49 (81.7)	38 (71.7)	46 (82.1)	35 (71.4)	38 (59.4)	30 (41.1)	40 (50.6)	52 (54.2)	35 (46.1)	35 (44.3)	719 (60.7)
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)	8 (16.3)	13 (20.3)	21 (28.8)	20 (25.3)	25 (26.0)	28 (36.8)	27 (34.2)	254 (21.4)
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)	0 (0.0)	3 (4.7)	3 (4.1)	1 (1.3)	3 (3.1)	3 (3.9)	5 (6.3)	48 (4.1)
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)	3 (6.1)	1 (1.6)	11 (15.1)	9 (11.4)	9 (9.4)	2 (2.6)	3 (3.8)	48 (4.1)
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)	0 (0.0)	1 (1.6)	0 (0.0)	1 (1.3)	2 (2.1)	0 (0.0)	0 (0.0)	24 (2.0)
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)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	1 (1.3)	1 (1.3)	8 (0.7)
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)	2 (3.3)	4 (7.5)	2 (3.6)	3 (6.1)	8 (12.5)	8 (11.0)	8 (10.1)	5 (5.2)	7 (9.2)	8 (10.1)	84 (7.1)
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)	49 (100)	64 (100)	73 (100)	79 (100)	96 (100)	76 (100)	79 (100)	1185 (100)

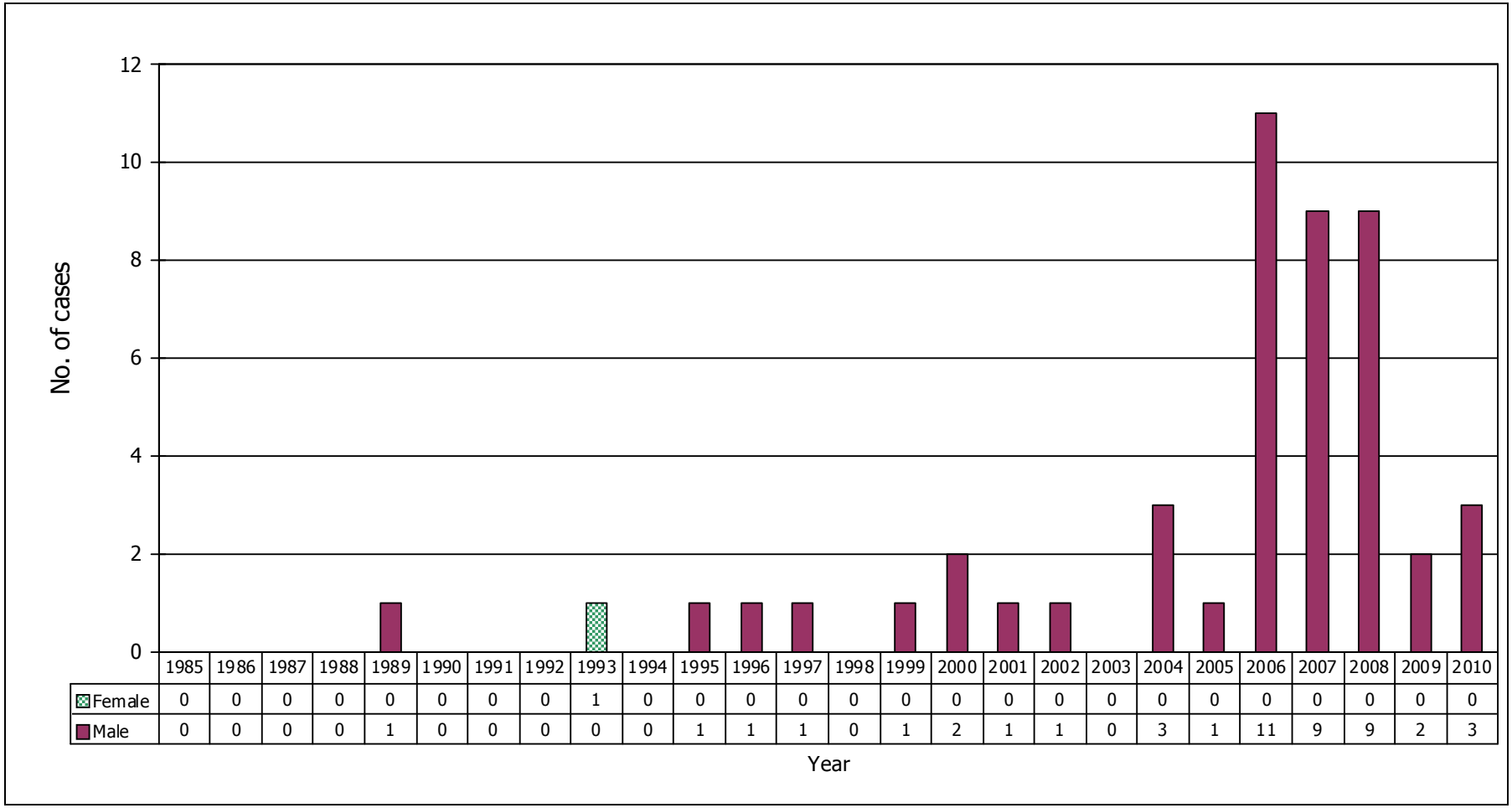
Box 2.6 Reported HIV/AIDS cases in injecting drug users

(a) Reported HIV-infected injecting drug users - by gender



	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Female	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	1	3	0	2	3	2	0	0
Male	0	1	0	0	1	2	0	0	2	1	2	2	1	2	1	6	10	10	10	11	22	31	56	40	40	15	15

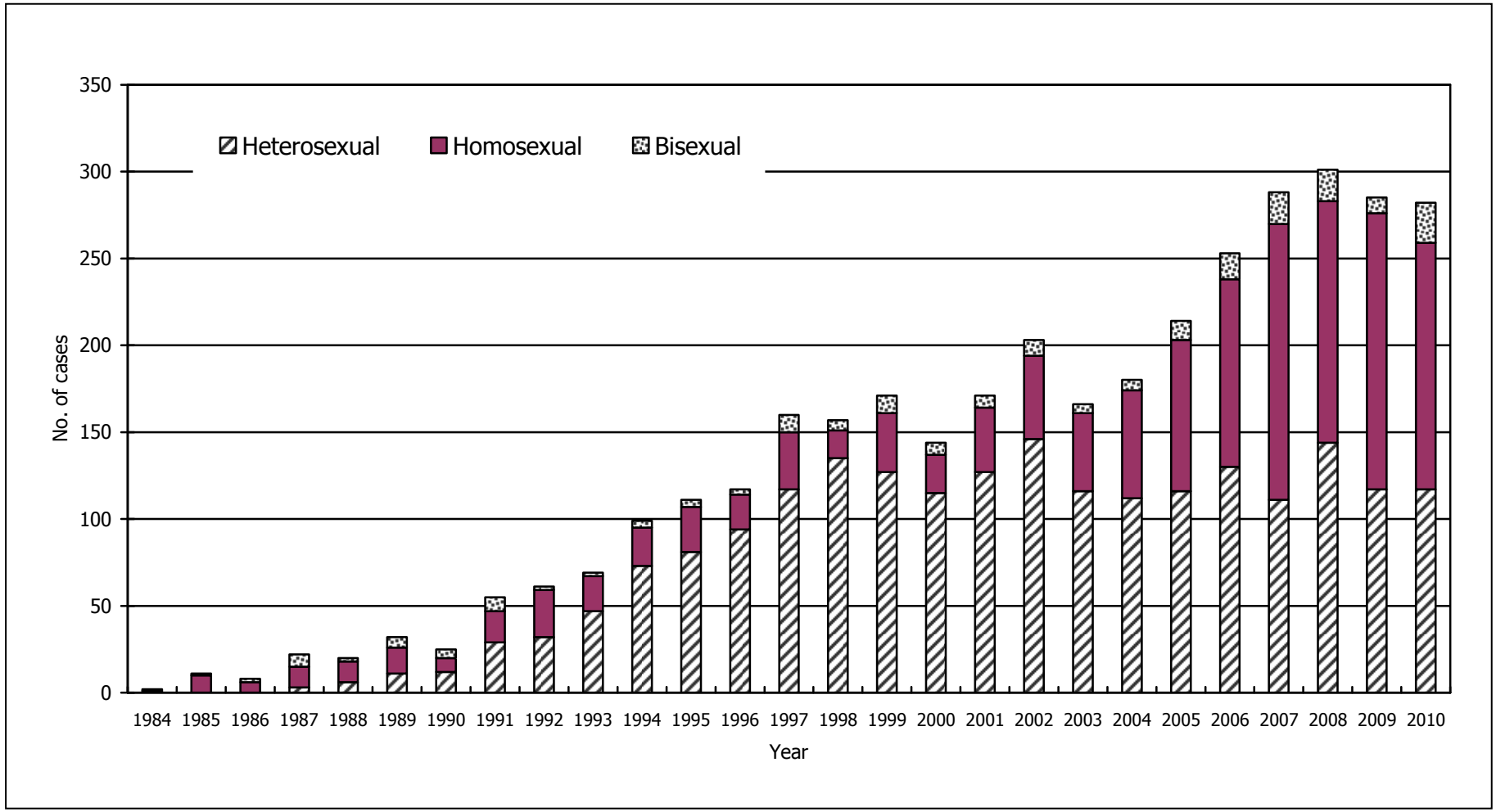
(b) Reported AIDS case in injecting drug users - by gender



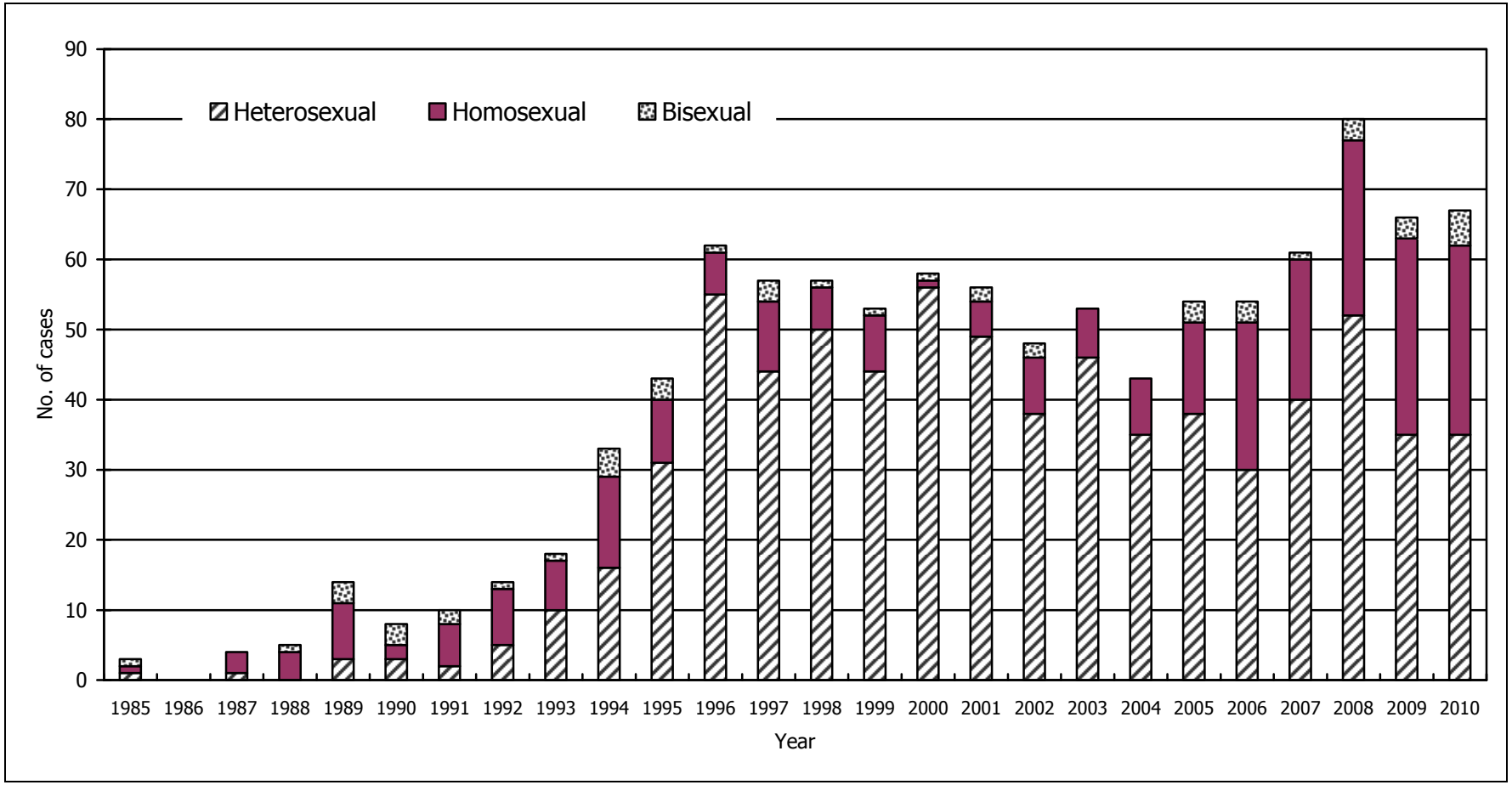
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Female	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Male	0	0	0	0	1	0	0	0	0	0	1	1	1	0	1	2	1	1	0	3	1	11	9	9	2	3

Box 2.7 Reported sexually acquired HIV/AIDS cases

(a) Yearly reports of sexually acquired HIV cases



(b) Yearly reports of sexually acquired AIDS cases



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

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	4.2 : 1	5.9 : 1
1999	2.0 : 1	4.2 : 1
2000	2.7 : 1	23.5 : 1
2001	1.9 : 1	5.3 : 1
2002	1.7 : 1	2.7 : 1
2003	1.7 : 1	4.9 : 1
2004	1.1 : 1	3.8 : 1
2005	0.8 : 1	1.8 : 1
2006	0.7 : 1	0.8 : 1
2007	0.4 : 1	1.5 : 1
2008	0.6 : 1	1.4 : 1
2009	0.4 : 1	0.8 : 1
2010	0.4 : 1	0.8 : 1
Total	**1.0 : 1**	**1.9 : 1**

Box 2.8 Profile of primary AIDS defining illnesses (ADI) (1985 - 2010)

ADI (%) \ Year	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	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)	22 (44.9)	20 (31.3)	27 (37.0)	28 (35.4)	37 (38.5)	32 (42.1)	36 (45.6)	465 (39.2)
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)	13 (26.5)	25 (39.1)	26 (35.6)	32 (40.5)	32 (33.3)	24 (31.6)	20 (25.3)	322 (27.2)
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)	6 (12.2)	5 (7.8)	4 (5.5)	3 (3.8)	3 (3.1)	6 (7.9)	5 (6.3)	104 (8.8)
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)	4 (8.2)	7 (10.9)	11 (15.1)	4 (5.1)	6 (6.3)	1 (1.3)	6 (7.6)	94 (7.9)
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)	1 (2.0)	2 (3.1)	3 (4.1)	4 (5.1)	6 (6.3)	3 (3.9)	3 (3.8)	53 (4.5)
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)	2 (4.1)	0 (0.0)	1 (1.4)	0 (0.0)	1 (1.0)	2 (2.6)	0 (0.0)	28 (2.5)
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)	0 (0.0)	1 (1.6)	0 (0.0)	1 (1.3)	4 (4.2)	2 (2.6)	1 (1.3)	27 (2.3)
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)	1 (2.0)	4 (6.3)	1 (1.4)	7 (8.9)	7 (7.3)	6 (7.9)	8 (10.1)	92 (7.8)
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)	49 (100)	64 (100)	73 (100)	79 (100)	96 (100)	76 (100)	79 (100)	1185 (100)

3. TABULATED RESULTS OF HIV PREVALENCE SURVEYS

System description

- This is a collection of data from HIV prevalence 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 2010
(a) Community with predisposing risk factors					
STI 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 (to 2003)	2000 – 4000 / year	No
		Universal HIV Antibody (Urine) Testing Programme	2003	7000 – 9000 / year	Yes
Drug users (2)	Different treatment and rehabilitation services	Unlinked anonymous screening using urine samples	1998	150 – 400 / year	Yes
Drug users (3)	Street addicts approached by outreach workers	Voluntary testing on unlinked saliva samples	1993 (to 1997)	200 – 500 / year	No
MSM	AIDS Concern	Voluntary testing offered to MSM	2000	200 - 900 / year	Yes
Prisoners	Penal institutions	Unlinked anonymous screening on blood / urine samples	1992	1000 – 2500 / year	Yes
(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 - 50000/ 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 with undefined risk					
TB patients (1)	TB and Chest Clinics of the Department of Health	Unlinked anonymous screening	1990 (to 2008)	1000 / year	No
TB patients (2)	TB and Chest Clinics of the Department of Health	Voluntary testing	1993	2000 – 4500 / year	Yes

*replaced by methadone clinics universal HIV testing programme and universal voluntary testing of antenatal women respectively

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

(a) HIV detection rate by number of donated blood units (1985 - 2010)

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	(0.0000 - 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	133,058	4	0.002	(0.0008 - 0.0077)
1996	140,169	5	0.003	(0.0012 - 0.0083)
1997	122,325	7	0.004	(0.0023 - 0.0118)
1998	136,267	7	0.003	(0.0021 - 0.0106)
1999	117,058	7	0.004	(0.0024 - 0.0123)
2000	189,482	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	5	0.003	(0.0009 - 0.0065)
2004	198,420	1	0.001	(0.0000 - 0.0028)
2005	197,974	3	0.002	(0.0003 - 0.0044)
2006	196,332	6	0.003	(0.0011 - 0.0067)
2007	205,645	9	0.004	(0.0020 - 0.0083)
2008	212,739	10	0.005	(0.0023 - 0.0086)
2009	214,709	3	0.001	(0.0003 - 0.0041)
2010	224,483	4	0.002	(0.0005 - 0.0046)

(b) HIV prevalence in new and repeat blood donors (1991 - 2010)

Year	New donors			Repeat donors		
	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)
2004	41,679	0	0 (---)	156,741	1	0.001 (0.0000 – 0.0036)
2005	42,643	1	0.002 (0.0001 – 0.0131)	155,331	2	0.001 (0.0002 – 0.0047)
2006	40,029	2	0.005 (0.0006 – 0.0180)	156,303	4	0.003 (0.0007 – 0.0066)
2007	40,287	3	0.007 (0.0015 – 0.0218)	165,358	6	0.004 (0.0013 – 0.0079)
2008	40,909	5	0.012 (0.0040 – 0.0285)	171,830	5	0.003 (0.0009 – 0.0068)
2009	46,158	1	0.002 (0.0001 – 0.0121)	168,551	2	0.001 (0.0001 – 0.0043)
2010	41,980	2	0.005 (0.0006 – 0.0172)	182,503	2	0.001 (0.0001 – 0.0040)

Box 3.2 HIV prevalence in clients attending Social Hygiene Services, from voluntary blood testing (1985 – 2010)

Year	No. of blood samples	No. of samples tested anti-HIV+	Prevalence (%)	95% C.I. for prevalence (%)
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)
2004	43,980	46	0.105	(0.077 - 0.140)
2005	38,978	28	0.072	(0.048 - 0.104)
2006	37,120	47	0.127	(0.093 - 0.168)
2007	33,841	50	0.148	(0.110 - 0.195)
2008	31,040	72	0.232	(0.181 - 0.292)
2009	29,152	50	0.172	(0.127 - 0.226)
2010	26,300	40	0.152	(0.109 - 0.207)

Box 3.3 HIV prevalence in drug users attending methadone clinics

(a) HIV prevalence in drug users attending methadone clinics from unlinked anonymous screening (1992 - 2003)*

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)

* Replaced by MUT programme since 2004

(b) HIV prevalence in drug users attending methadone clinics from voluntary testing (1991 - 2003)**

Year	*No. of blood samples	No. of samples tested anti-HIV+	Prevalence (%)	95% C.I. for prevalence (%)
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	(--- - ---)

* all were blood samples, with a small proportion being urine samples since late 1999
** Replaced by MUT programme since 2004

(c) HIV prevalence in drug users attending methadone clinics from Universal HIV Antibody (Urine) Testing Programme (2003 - 2010)

Year	No. of Urine samples	No. of samples tested anti-HIV+	Prevalence (%)	95% C.I. for prevalence (%)
2003 (Jul – Sep)	1,834	9	0.491	(0.224 - 0.932)
2004	8,812	18	0.204	(0.121 - 0.323)
2005	8,696	28	0.322	(0.214 - 0.465)
2006	7,730	28	0.362	(0.241 - 0.524)
2007	7,314	26	0.355	(0.232 - 0.521)
2008	7,955	37	0.465	(0.327 - 0.641)
2009	7,765	38	0.489	(0.346 - 0.672)
2010	7,445	36	0.484	(0.339 - 0.669)

Box 3.4 HIV prevalence in drug users attending inpatient drug treatment centres / institutions, from unlinked anonymous screening (1998 - 2010)

Year	No. of urine samples	No. of samples tested anti-HIV+	Prevalence (%)	95% C.I. for prevalence (%)
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)
2004*	---	---	---	(--- - ---)
2005	630	0	0	(--- - ---)
2006	786	4	0.509	(0.139 - 1.303)
2007	387	0	0	(--- - ---)
2008	369	0	0	(--- - ---)
2009	430	3	0.698	(0.144 - 2.039)
2010	165	0	0	(--- - ---)

* Unlinked anonymous screening was not performed in 2004;

Box 3.5 HIV prevalence in newly admitted prisoners from unlinked anonymous screening (1995 - 2010)

Year	No. of Samples*	No. of samples tested anti-HIV+	Prevalence (%)	95% C.I. for prevalence (%)
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	(0.303 - 1.164)**
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)
2004	1,980	7	0.354	(0.142 - 0.728)
2005	2,007	6	0.299	(0.110 - 0.651)
2006	2,796	13	0.465	(0.248 - 0.795)
2007	2,718	7	0.258	(0.104 - 0.531)
2008	2,231	21	0.941	(0.583 - 1.439)
2009	1,929	15	0.778	(0.435 - 1.283)
2010	1,450	14	0.966	(0.528 - 1.620)

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

Box 3.6 HIV prevalence in patients with tuberculosis

(a) HIV prevalence in patients attending government TB & Chest Clinics, from unlinked anonymous screening (1990 - 2008) *

Year	No. of blood/urine samples**	No. of samples tested anti-HIV+	Prevalence (%)	95% C.I. for prevalence(%)
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	1,000	8	0.800	(0.345 - 1.576)
2003	920	6	0.652	(0.239 - 1.420)
2004	1,056	9	0.852	(0.390 - 1.618)
2005	840	7	0.833	(0.335 - 1.717)
2006	841	5	0.595	(0.193 - 1.387)
2007	887	11	1.240	(0.619 - 2.219)
2008	783	4	0.511	(0.139 - 1.308)

* Unlinked anonymous screening was not performed in 1994, and suspended since 2009

** Only samples before 1994 were blood samples. urine samples provided since 1995.

(b) HIV prevalence in patients attending government TB & Chest Clinics, from voluntary blood testing (1993 - 2010)

Year	No. of blood samples	Coverage*		No. of anti-HIV+	Prevalence (%)	95% C.I. for prevalence (%)
		A	B			
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%	44.8%	3	0.088	(0.018 - 0.256)
2001	3,404	94.2%	45.3%	9	0.264	(0.121 - 0.502)
2002	3,186	94.2%	47.4%	7	0.220	(0.088 - 0.453)
2003	3,122	92.3%	50.4%	2	0.064	(0.008 - 0.231)
2004	3,202	93.1%	44.4%	10	0.312	(0.150 - 0.574)
2005	4,209	81.2%	68.3%	35	0.832	(0.579 - 1.157)
2006	4,511	91.0%	78.2%	33	0.732	(0.504 - 1.027)
2007	4,075	88.7%	74.6%	41	1.006	(0.722 - 1.365)
2008	4,121	89.9%	73.1%	48	1.165	(0.859 - 1.544)
2009	3,993	89.0%	76.9%#	40	1.002	(0.716 - 1.364)
2010	3,833	90.2%	74.7%**	28	0.730	(0.485 - 1.056)

* coverage A is the proportion of patients attended government TB & Chest Clinics who have been tested for HIV in TB Clinic. (For year 2000-2004, it used to be 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.

figures revised

** provisional figure

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 - 2010)

Year	Number of blood samples	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)
2004	41,070	97.9%	6	0.01	(0.0054 - 0.0318)
2005	42,750	98.1%	5	0.01	(0.0038 - 0.0273)
2006	43,297	98.0%	9	0.02	(0.0095 - 0.0395)
2007	47,472	97.4%	11	0.02	(0.0116 - 0.0415)
2008	51,737	98.2%	2	0.004	(0.0005 - 0.0140)
2009	51,227	98.3%	7	0.01	(0.0055 - 0.0282)
2010	55,147	98.6%	10	0.02	(0.0088 - 0.0338)

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

Box 3.8 HIV prevalence among MSM tested by AIDS Concern (2000 - 2010)

	Number of test*	Number of positive tests	Prevalence (%)	95% C.I. for prevalence (%)
2000	38	0	0	(--- - ---)
2001	107	1	0.93	(0.024 - 5.207)
2002	130	1	0.77	(0.019 - 4.286)
2003	223	2	0.90	(0.109 - 3.240)
2004	332	6	1.81	(0.663 - 3.934)
2005	483	12	2.48	(1.284 - 4.340)
2006	610	10	1.64	(0.786 - 3.015)
2007	723	17	2.35	(1.370 - 3.765)
2008	905	15	1.66	(0.928 - 2.734)
2009	909	18	1.98	(1.174 - 3.130)
2010	854	18	2.11	(1.249 - 3.331)

* rapid test

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[1], Wan Chai, Western[2], Yau Ma Tei, South Kwai Chung[3], Yung Fung Shee, Tuen Mun, Fanling ITC[4] , Tai Po[5], and Shek Wu Hui[5].

Remark:

[1] Lek Yuen Clinic was closed since April 2005

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

[3] South Kwai Chung Clinic was closed on 27.3.2004

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

[5] Tai Po and Shek Wu Hui clinics were closed since 2001

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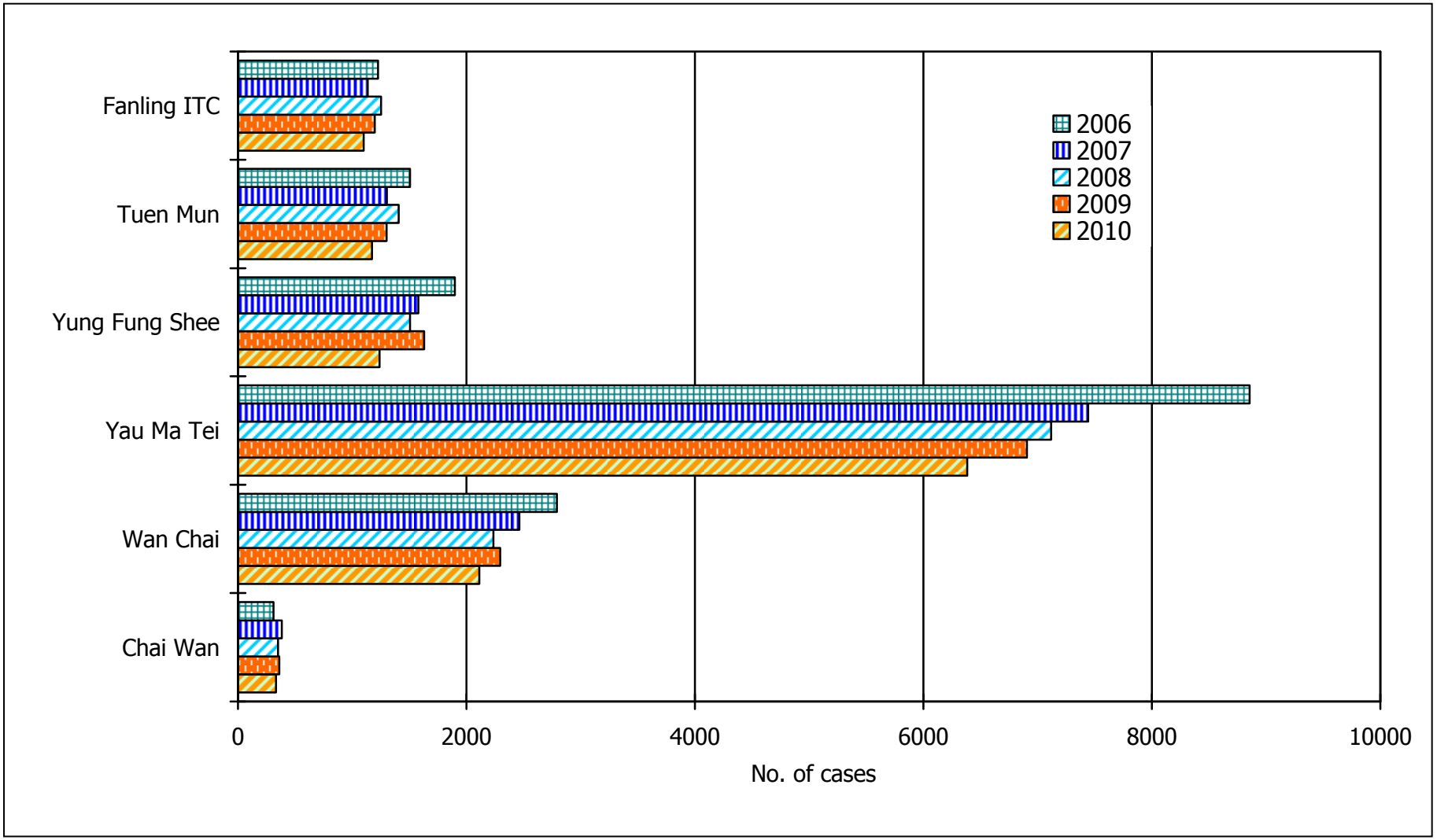
Box 4.1 Total number of STI newly reported by individual Social Hygiene Clinic

(a) Year 2010

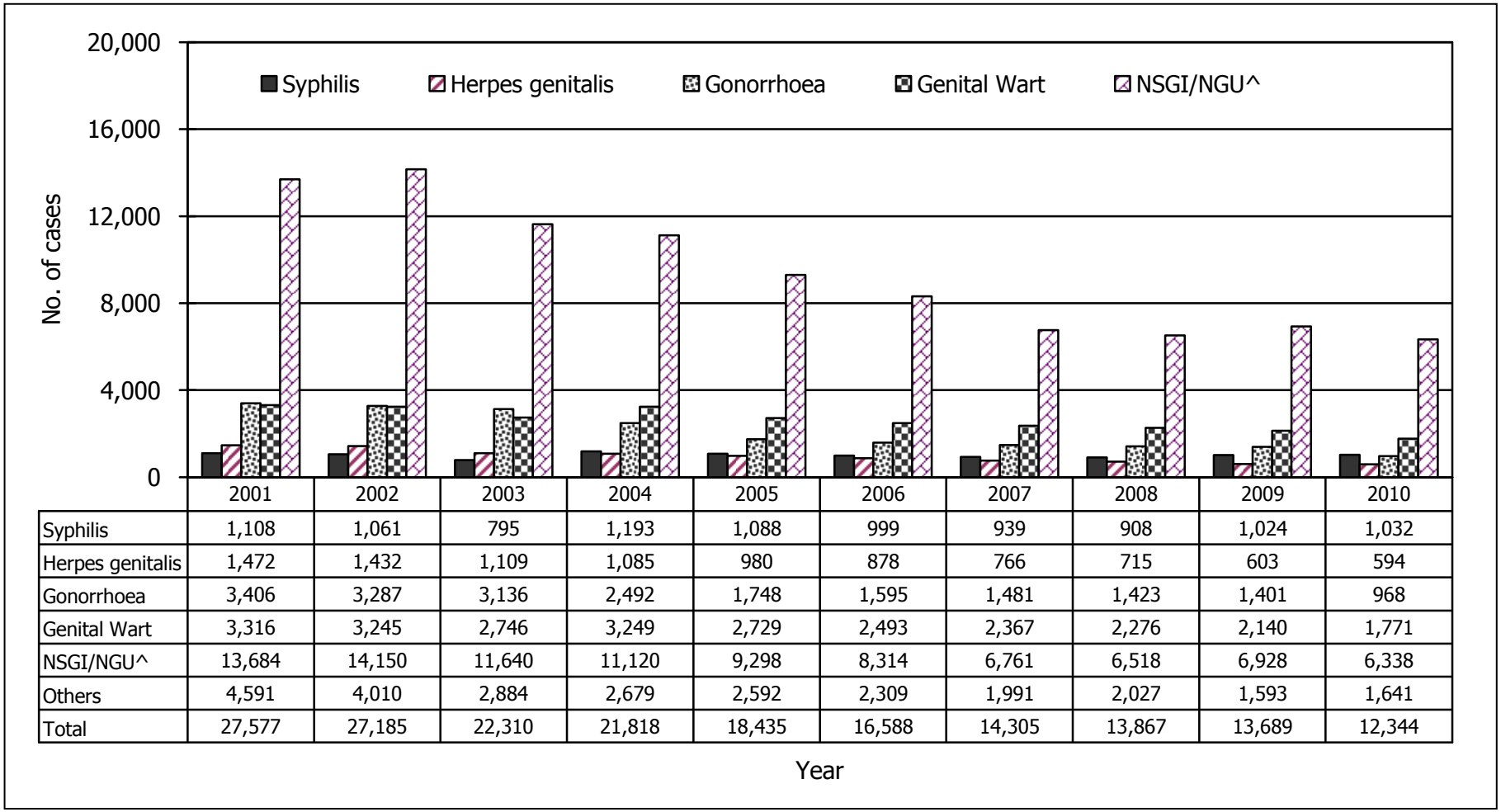
	Chai Wan	Wan Chai	Yau Ma Tei	Yung Fung Shee	Tuen Mun	Fanling ITC[#]	Total
Male	162	1,381	3,202	801	622	611	6,779
Female	171	731	3,182	439	552	490	5,565
Total	333	2,112	6,384	1,240	1,174	1,101	12,344

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

(b) 2006 - 2010


Fanling ITC
Tuen Mun
Yung Fung Shee
Yau Ma Tei
Wan Chai
Chai Wan
2006
2007
2008
2009
2010
0
2000
4000
6000
8000
10000
No. of cases

Box 4.2 Annual newly reported STIs in Social Hygiene Clinics



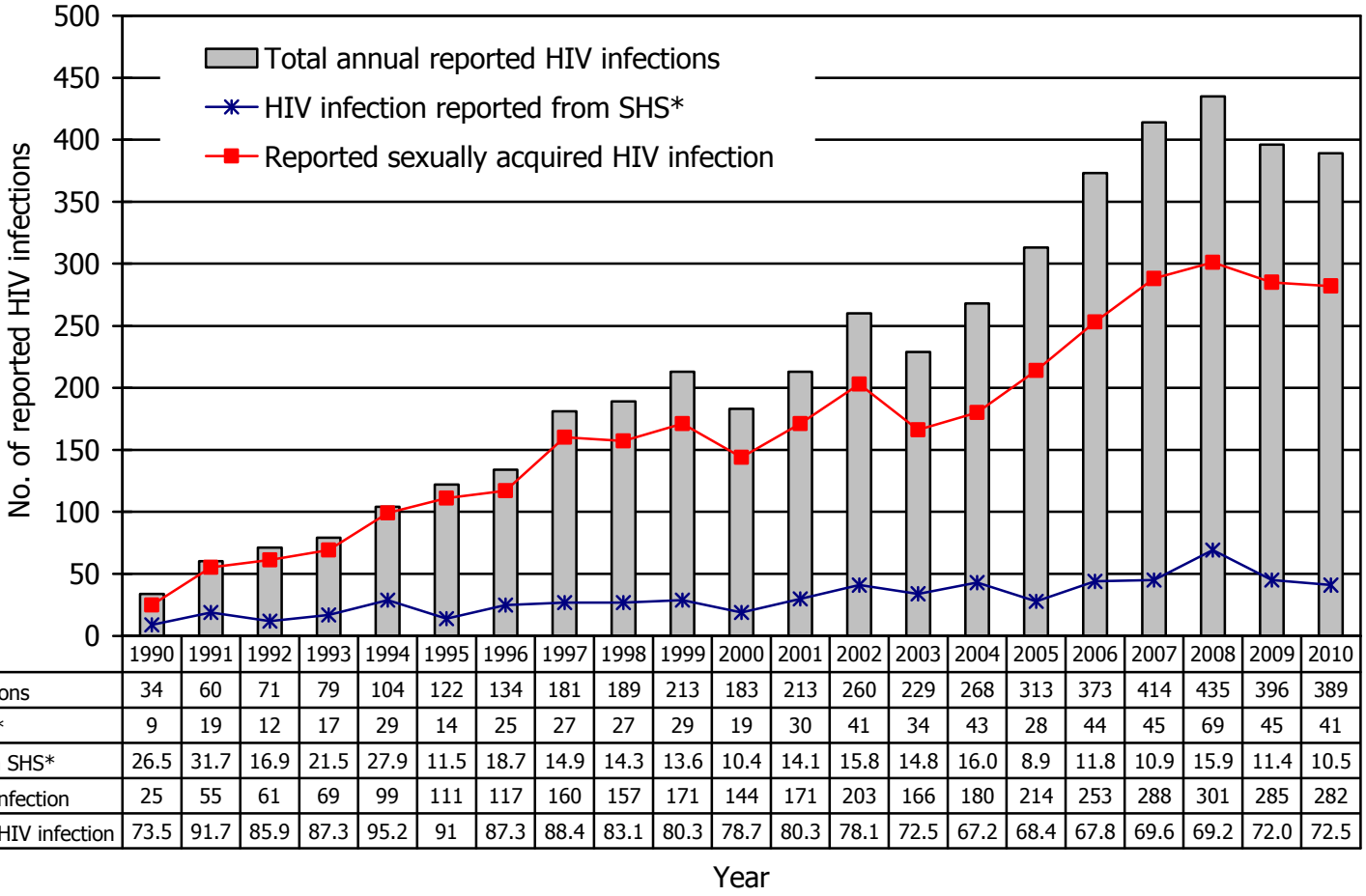
	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Syphilis	1,108	1,061	795	1,193	1,088	999	939	908	1,024	1,032
Herpes genitalis	1,472	1,432	1,109	1,085	980	878	766	715	603	594
Gonorrhoea	3,406	3,287	3,136	2,492	1,748	1,595	1,481	1,423	1,401	968
Genital Wart	3,316	3,245	2,746	3,249	2,729	2,493	2,367	2,276	2,140	1,771
NSGI/NGU^	13,684	14,150	11,640	11,120	9,298	8,314	6,761	6,518	6,928	6,338
Others	4,591	4,010	2,884	2,679	2,592	2,309	1,991	2,027	1,593	1,641
Total	27,577	27,185	22,310	21,818	18,435	16,588	14,305	13,867	13,689	12,344

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

Box 4.3 Syphilis newly reported by Social Hygiene Clinics (2006 - 2010)

Year / Syphilis	2006	2007	2008	2009	2010
Primary	48	50	45	63	50
Secondary	42	58	56	69	54
Early latent	69	63	82	61	91
Late latent	835	764	720	816	821
Late (cardiovascular / neuro)	4	3	5	12	16
Congenital (early)	0	0	0	0	0
Congenital (late)	1	1	0	3	0
Total	999	939	908	1,024	1,032

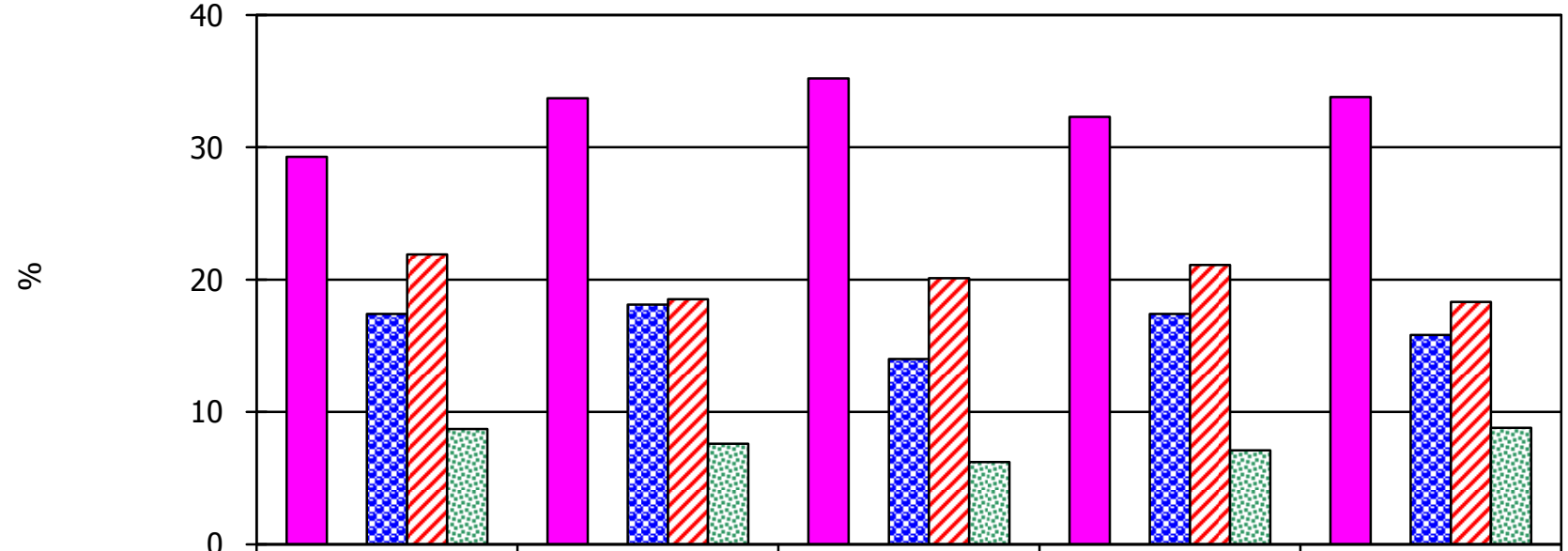
Box 4.4 Sexually acquired HIV infection in Hong Kong



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Total annual reported HIV infections	34	60	71	79	104	122	134	181	189	213	183	213	260	229	268	313	373	414	435	396	389
HIV infection reported from SHS*	9	19	12	17	29	14	25	27	27	29	19	30	41	34	43	28	44	45	69	45	41
% of HIV infection reported from SHS*	26.5	31.7	16.9	21.5	27.9	11.5	18.7	14.9	14.3	13.6	10.4	14.1	15.8	14.8	16.0	8.9	11.8	10.9	15.9	11.4	10.5
Reported sexually acquired HIV infection	25	55	61	69	99	111	117	160	157	171	144	171	203	166	180	214	253	288	301	285	282
% of reported sexually acquired HIV infection	73.5	91.7	85.9	87.3	95.2	91	87.3	88.4	83.1	80.3	78.7	80.3	78.1	72.5	67.2	68.4	67.8	69.6	69.2	72.0	72.5

* SHS: Social Hygiene Service

Box 4.5 Syndromic presentations of STI from Behavioural Survey of Social Hygiene Service



	2006	2007	2008	2009	2010
No Symptom (%)	29.3	33.7	35.2	32.3	33.8
Symptom:					
Discharge (%)	17.4	18.1	14.0	17.4	15.8
Growth (%)	21.9	18.5	20.1	21.1	18.3
Ulcer (%)	8.7	7.6	6.2	7.1	8.8

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 2010
AIDS Counselling and Testing Service (ACTS)	- 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 / casual sex - Condom use in heterosexual men		Yes
Methadone clinics (DRS-M)		- Proportion of current injectors - Practice of current needle-sharing	Yes
Shek Kwu Chau (SKC) Treatment and Rehabilitation Centre (DRS-S)		- Proportion of current injectors - Practice of current needle-sharing	Yes
Central Registry of Drug Abuse (CRDA)		- Proportion of current injectors in all drug users - Proportion of current injectors in new drug users	Yes
Street Addict Survey (SAS) (From the society for the Aid and Rehabilitation of Drug Abusers)		- Proportion of current injectors - Practice of current needle-sharing	Yes
AIDS Concern testing service for MSM (AC)	- Condom use in MSM		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 and Testing Service (ACTS)

	2002	2003	2004	2005	2006	2007	2008	2009	2010
Heterosexual men - Regular sex partners*	1	1	1	1	1	1	1	1	1
Heterosexual men - Commercial sex partners**	2	2	2	2	2	2	2	3#	3
Heterosexual men - Casual sex partners***	1	1	1	1	1	1	1	1	1
MSM - Regular sex partners*	1	1	1	1	1	1	1	1	1
MSM - Commercial sex partners**	2	2.5	2	1	1.5	1	2	3	1.5
MSM - Casual sex partners***	3	3	4	3	3	3	4	4	3.5

^ Adult: aged 18 or above

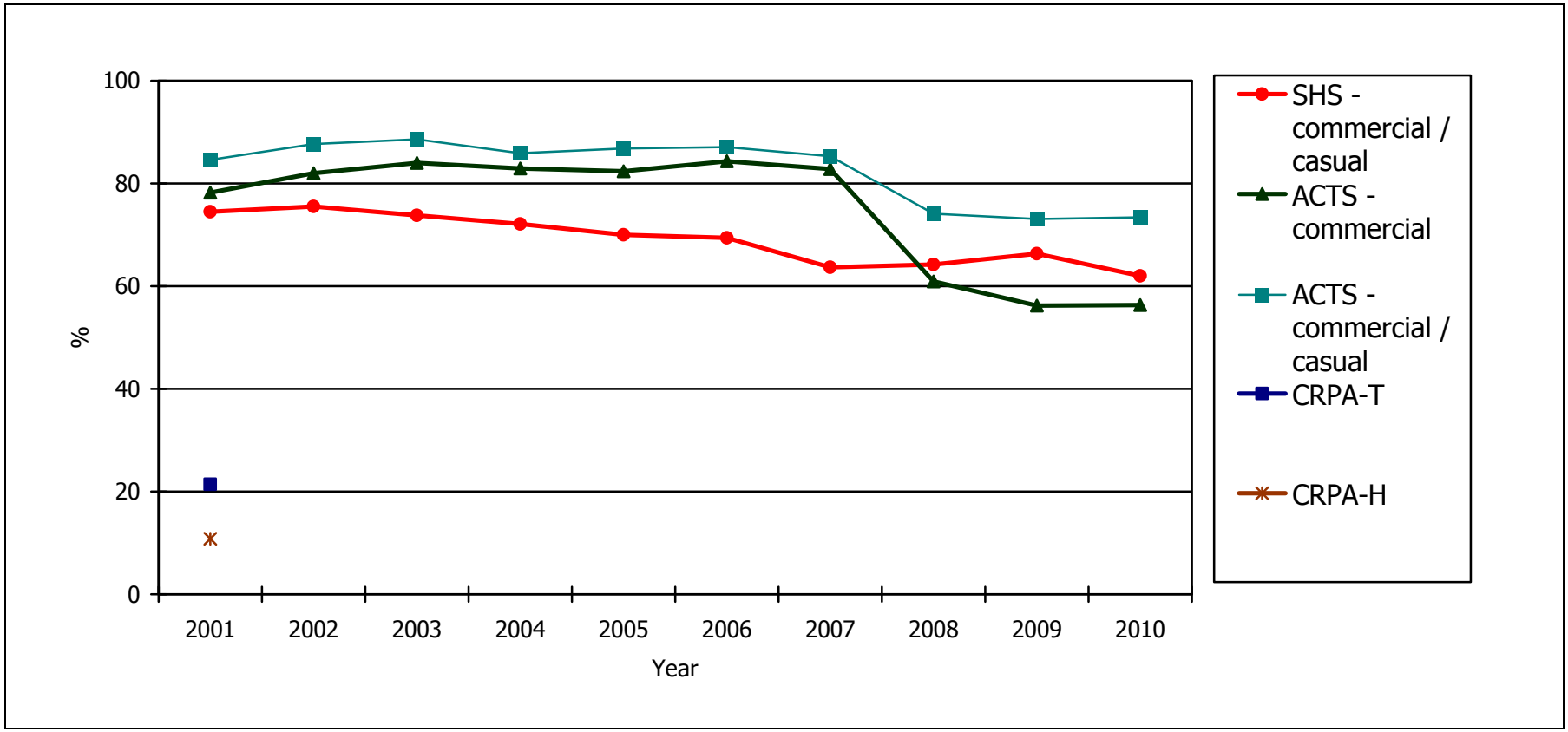
* Regular sex partners used to refer to long-term sex partners including spouse, mistress, and steady boy/girl friends for at least one year, or if less than one year, one with whom is expected to continue sexual relationship. This definition of regular sex partners in 2008 has been futher refined to include (other than the long-term sex partners) sex buddy that refers to regular sex only partner for at least 6 months, or if less than 6 months, one with whom is expected to continue sexual relationship

** 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.

\# Revised figures

Box 5.2 Recent history* of commercial / casual sex among adult^ heterosexual men



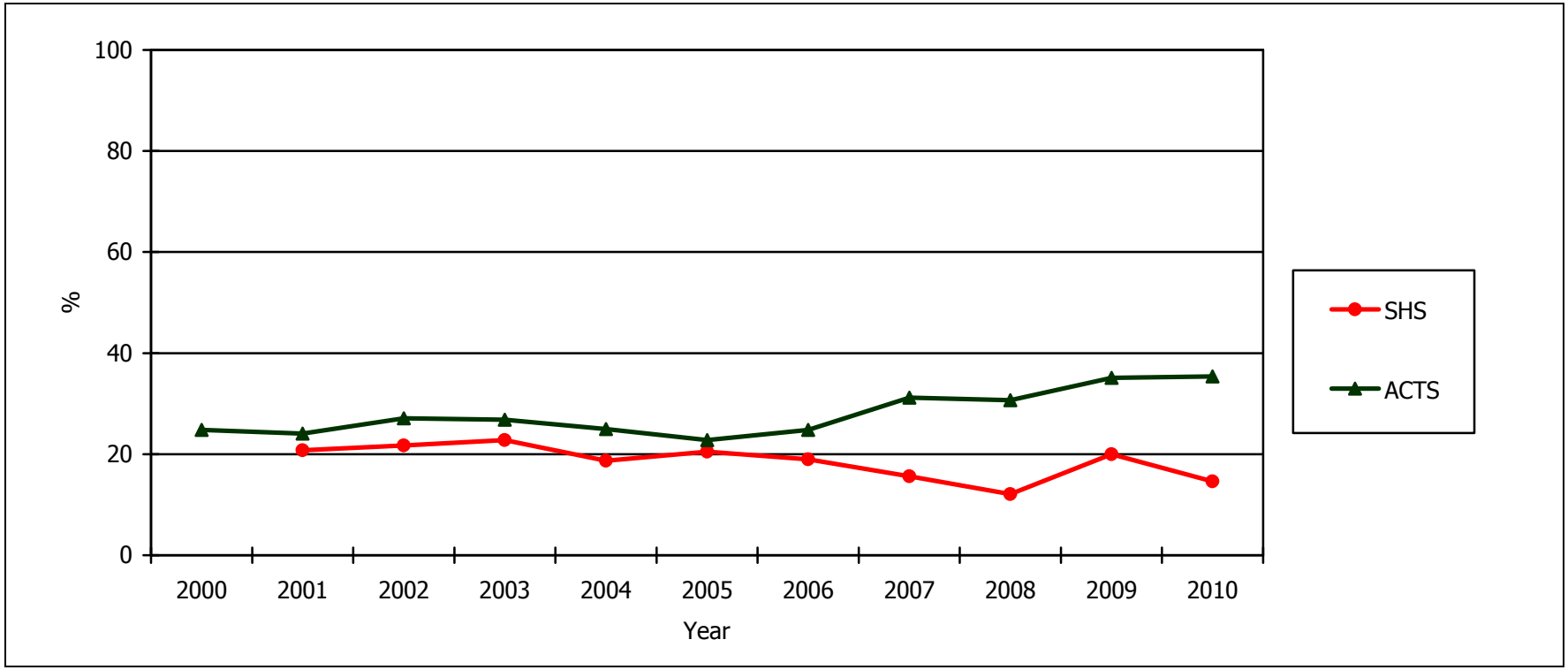
* Commercial sex partners are defined as those who have sexual intercourse in exchange for money, goods or services. Examples are female sex workers and their clients. Casual sex partners are defined as those who are non-regular and non-commercial. Examples are those on one-night stand. SHS & ACTS refers to such history in past one year; CRPA referred to such hsitory in past 6 months

^ Adult: aged 18 or above

Remarks : Data of CRPA of 2000 is not available, and suspended since 2002
SHS – Social Hygiene Services
ACTS - AIDS Counselling and Testing Service
CRPA - Community Research Programme on AIDS from Centre for Epidemiology and Biostatistics (H: Household; T: Travellers)

Box 5.3 Condom use with regular partners among adult heterosexual men

(a) Consistent condom use* with regular partners among adult^ heterosexual men**



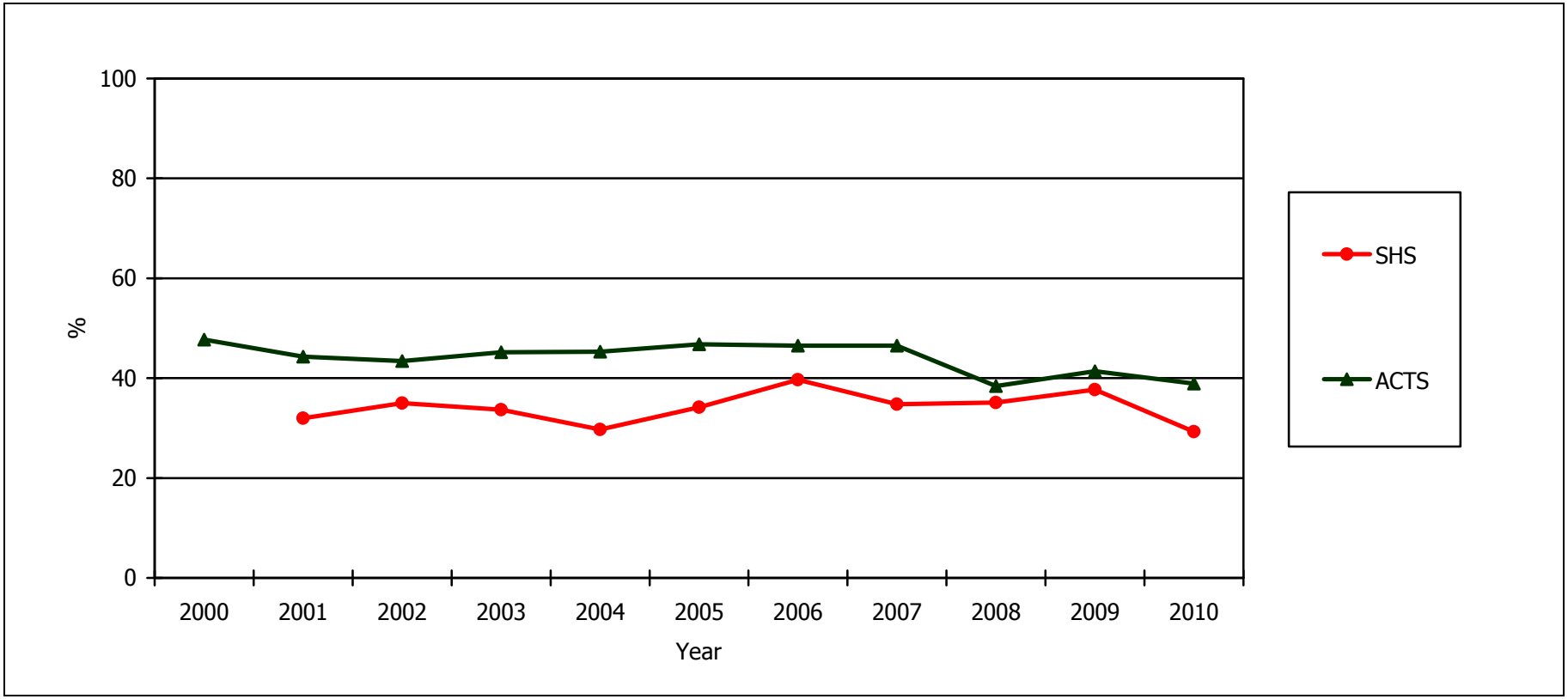
* Consistent condom use is defined as always or 100% of the time using a condom

** Regular sex partners used to refer to long-term sex partners including spouse, mistress, and steady girl friends for at least one year, or if less than one year, one with whom is expected to continue sexual relationship. This definition of regular sex partners in 2008 has been futher refined to include (other than the long-term sex partners) sex buddy that refers to regular sex only partner for at least 6 months, or if less than 6 months, one with whom is expected to continue sexual relationship

^ Adult: aged 18 or above

Remarks : SHS – Social Hygiene Services
ACTS - AIDS Counselling and Testing Service

(b) Condom use for last sex with regular partners* among adult^ heterosexual men



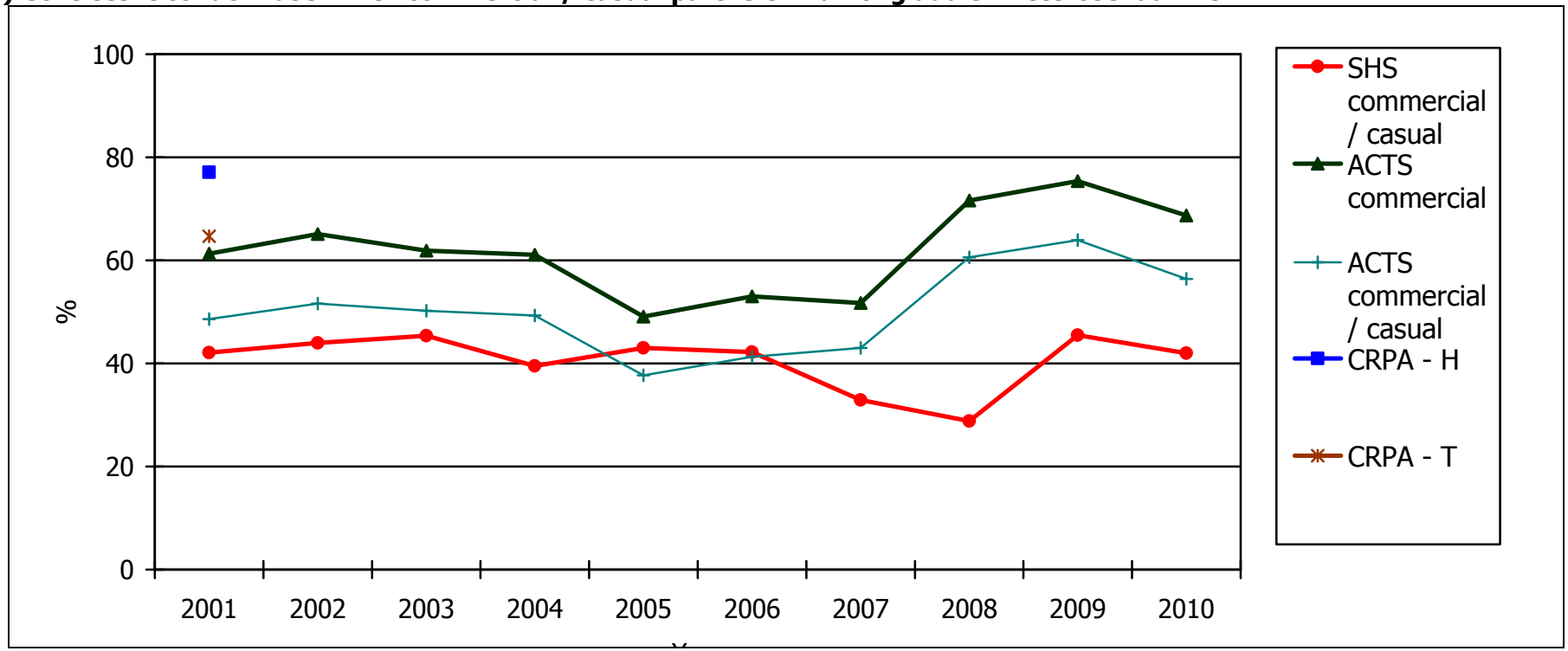
* Regular sex partners used to refer to long-term sex partners including spouse, mistress, and steady girl friends for at least one year, or if less than one year, one with whom is expected to continue sexual relationship. This definition of regular sex partners in 2008 has been futher refined to include (other than the long-term sex partners) sex buddy that refers to regular sex only partner for at least 6 months, or if less than 6 months, one with whom is expected to continue sexual relationship Regular sex partners refer to the spouse or other long-term sex partners for at least one year, or if less than one year.

^ Adult: aged 18 or above

Remarks : SHS – Social Hygiene Services
ACTS - AIDS Counselling and Testing Service

Box 5.4 Condom use with commercial / casual partners among adult heterosexual men

(a) Consistent condom use* with commercial / casual partners among adult^ heterosexual men**



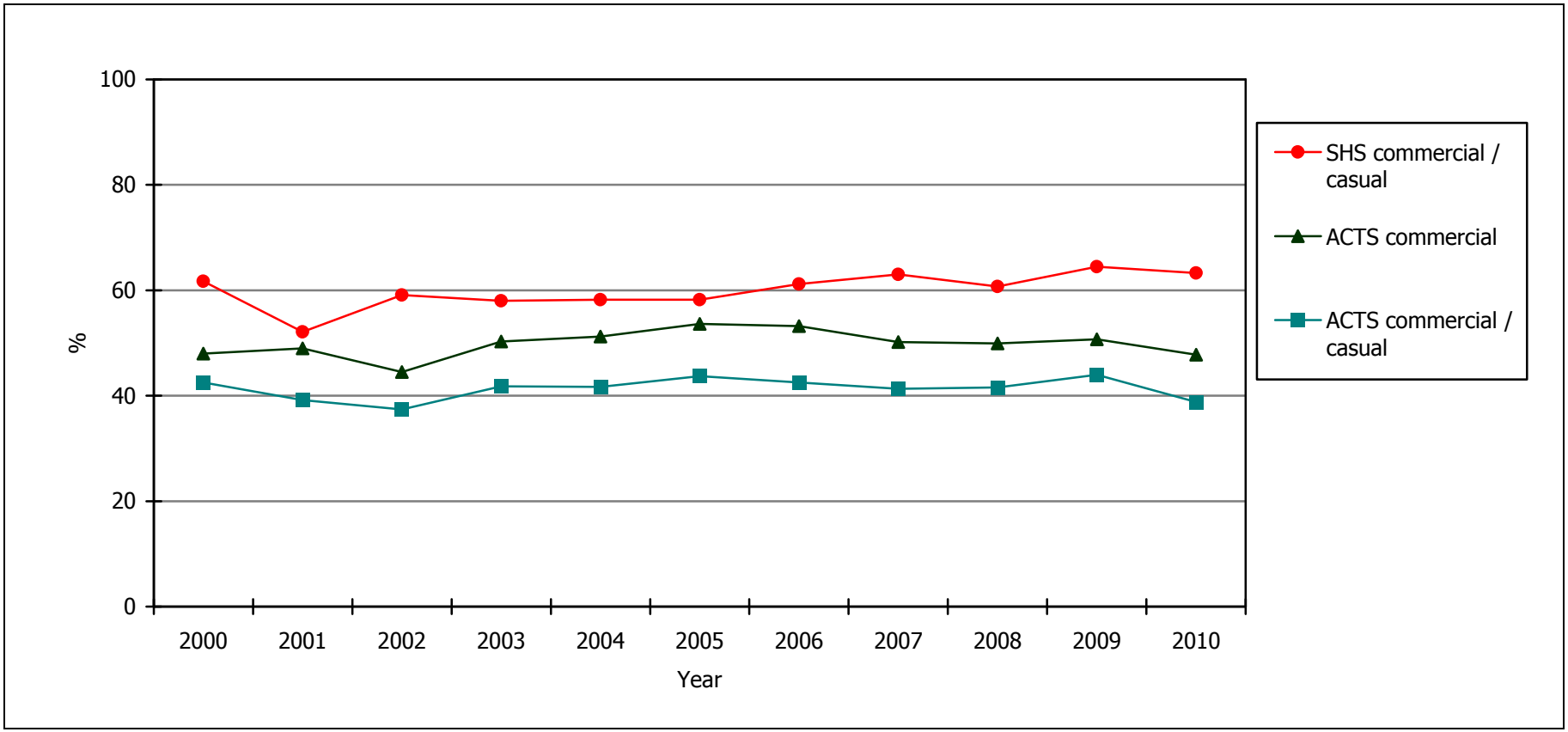
* Consistent condom use is defined as always or 100% of the time using a condom
ACTS captures such condom usage in past one year while SHS captures such usage in past 3 months

** Commercial sex partners are defined as those who have sexual intercourse in exchange for money, goods or services. Examples are female sex workers and their clients. Casual sex partners are defined as those who are non-regular and non-commercial. Examples are those on one-night stand.

^ Adult: aged 18 or above

Remarks : Data of CRPA suspended since 2002
SHS – Social Hygiene Services
ACTS - AIDS Counselling and Testing Service
CRPA - Community Research Programme on AIDS from Centre for Epidemiology and Biostatistics (H: Household; T: Travellers)

(b) Condom use for last sex with commercial / casual partners* among adult^ heterosexual men

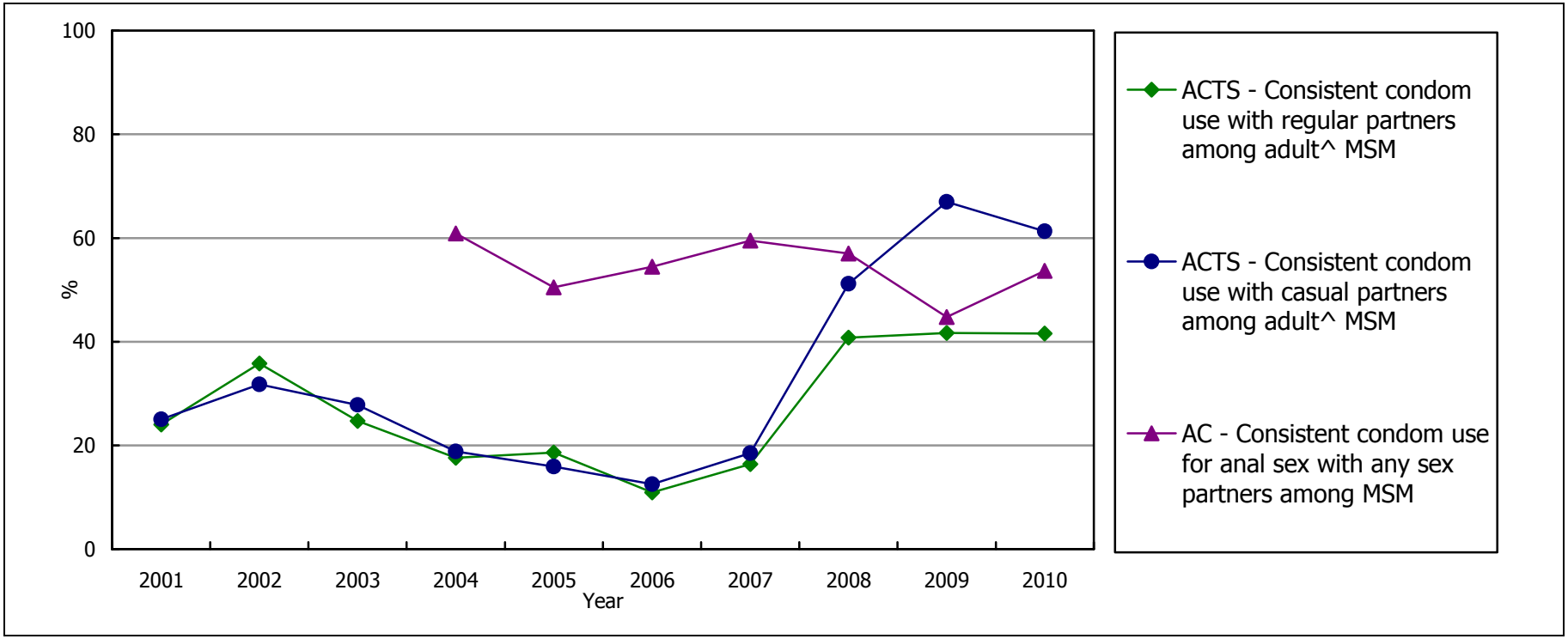


* Commercial sex partners are defined as those who have sexual intercourse in exchange for money, goods or services. Examples are female sex workers and their clients. Casual sex partners are defined as those who are non-regular and non-commercial. Examples are those on one-night stand. .

^ Adult: aged 18 or above

Remarks : SHS – Social Hygiene Services
ACTS - AIDS Counselling and Testing Service

Box 5.5 Condom use among Men have Sex with Men (MSM)
(a) Consistent condom use* among MSM



* Consistent condom use is defined as always or 100% of the time using a condom
ACTS captures such condom usage in past one year while AC captures such usage in past 3 months

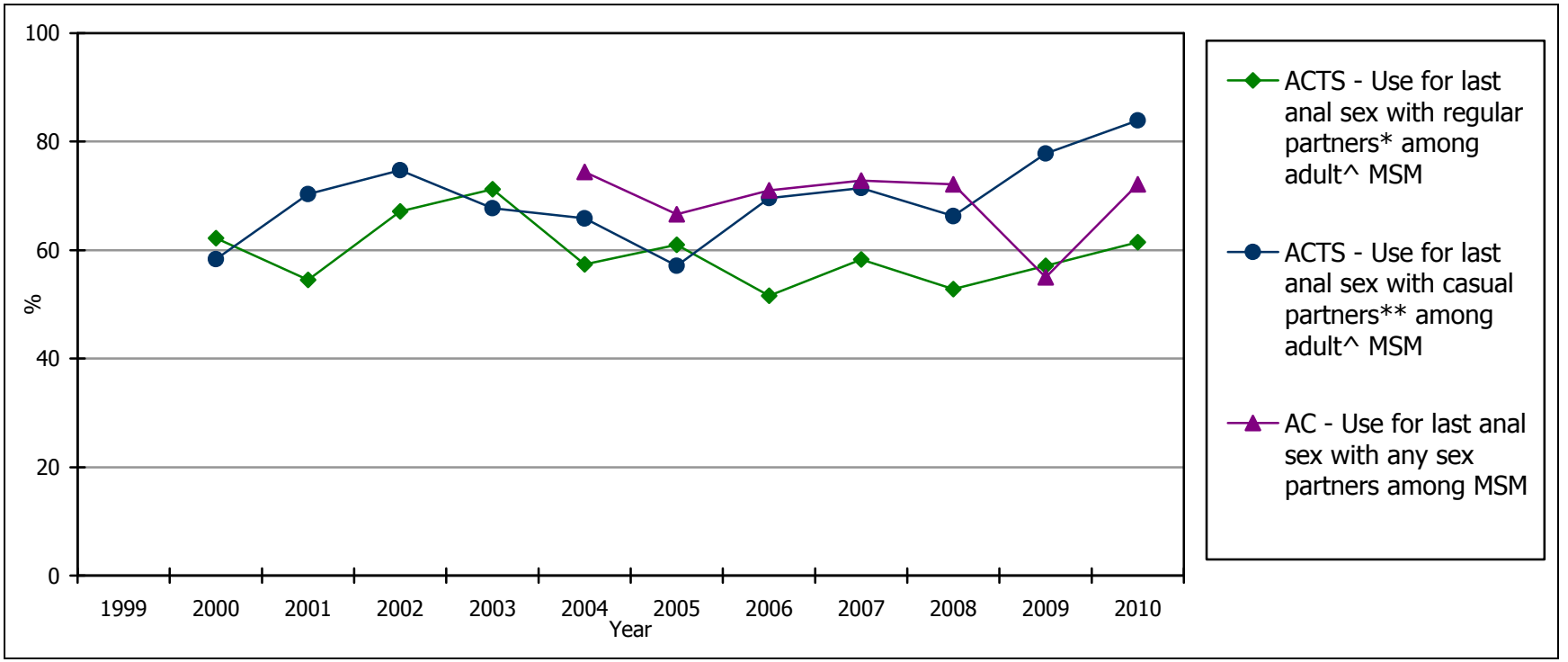
** Regular sex partners used to refer to long-term sex partners including spouse, mistress, and steady boy/girl friends for at least one year, or if less than one year, one with whom is expected to continue sexual relationship. This definition of regular sex partners in 2008 has been futher refined to include (other than the long-term sex partners) sex buddy that refers to regular sex only partner for at least 6 months, or if less than 6 months, one with whom is expected to continue sexual relationship

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

^ Adult: aged 18 or above

Remarks: ACTS - AIDS Counselling and Testing Service
AC - AIDS Concern

(b) Condom use for last anal sex among MSM



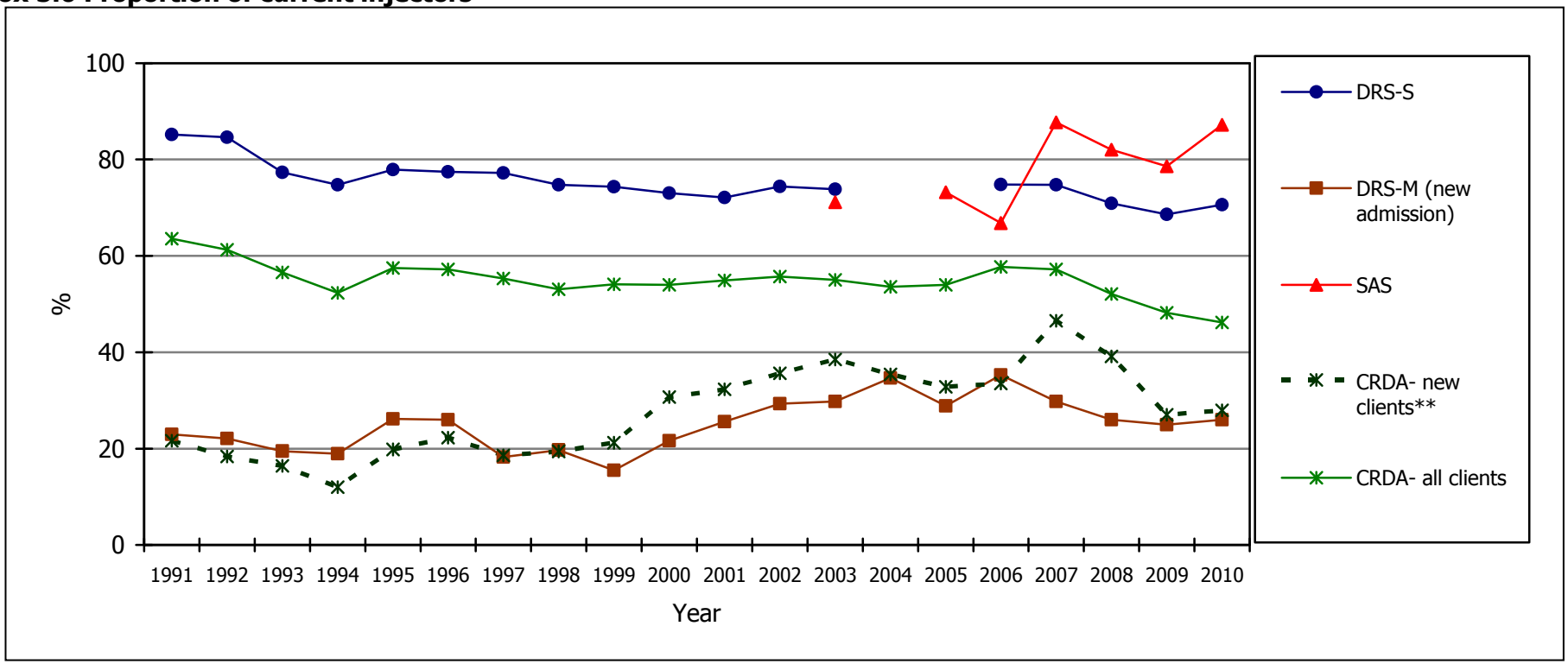
* Regular sex partners used to refer to long-term sex partners including spouse, and steady boy friends for at least one year, or if less than one year, one with whom is expected to continue sexual relationship. This definition of regular sex partners in 2008 has been futher refined to include (other than the long-term sex partners) sex buddy that refers to regular sex only partner for at least 6 months, or if less than 6 months, one with whom is expected to continue sexual relationship

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

^ Adult: aged 18 or above

Remarks : Figures of condom use for last anal sex with casual partners among adult MSM in ACTS were revised
ACTS - AIDS Counselling and Testing Service
AC - AIDS Concern

Box 5.6 Proportion of current injectors*

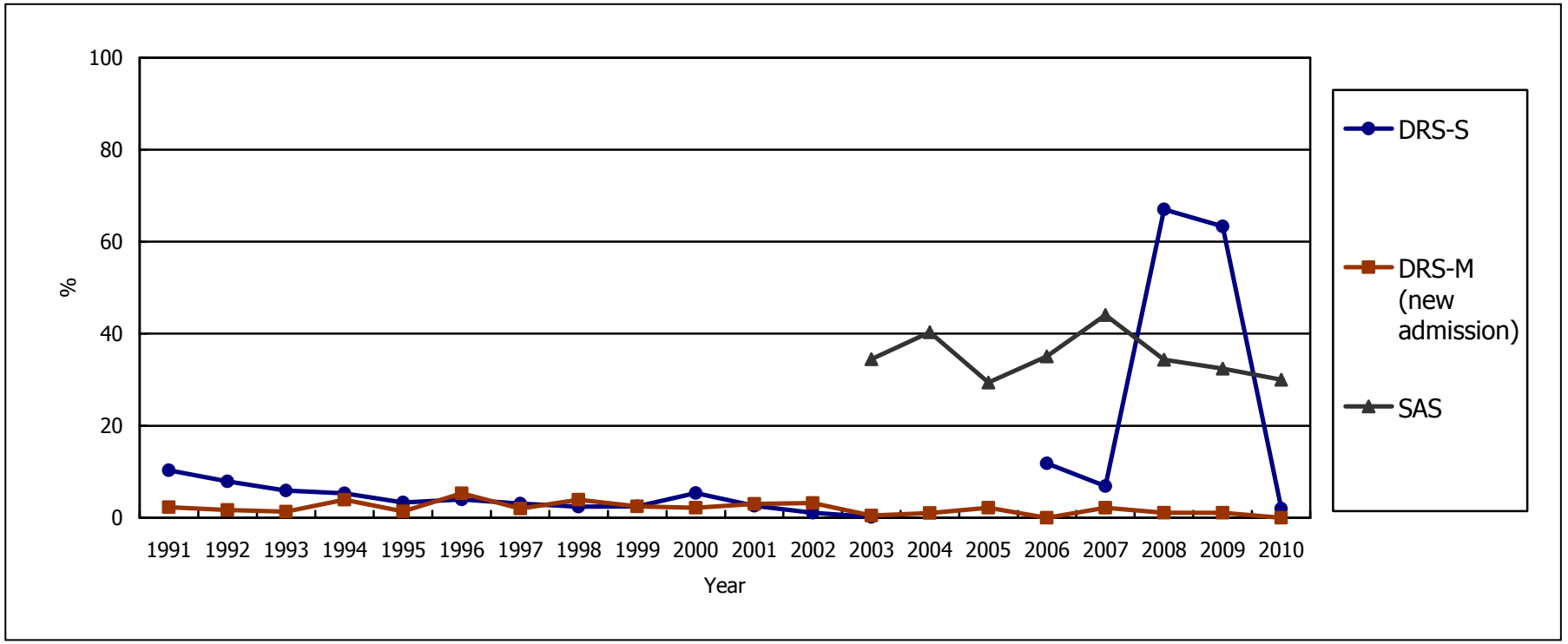


* Definitions differ for different data sources. DRS-S refers to drug injecting behaviour in past 6 months (before 2006, it referred to drug injecting at the time of programme admission); DRS-M refers to drug injecting at the time of programme admission; SAS refers to drug injecting behaviour in past 1 month (before 2007, it referred to drug injecting in past 3 months); CRDA refers to drug injecting behaviour in past 4 weeks;

** 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: DRS-S - Shek Kwu Chau Treatment and Rehabilitation Centre (Newly / Re-admitted case)
DRS-M - Methadone clinics (Newly admitted case only)
SAS - Street Addict Survey (From the society for the Aid and Rehabilitation of Drug Abusers)
CRDA - Central Registry of Drug Abuse

Box 5.7 Proportion of current needle-sharers*



* This figure referred to the proportion of current syringe sharing behaviour among current injectors. Definitions differ for different data sources. DRS-S refers to such sharing behaviour among those who injected drug in past 6 months (before 2006, it referred to such sharing behaviour in past 6 months among those who injected drug at the time of programme admission); SAS refers to such sharing behaviour among those who injected drug in past 1 month (before 2007, it referred to such sharing behaviour in past 3 months); DRS-M refers to such sharing behaviour in past 4 weeks among those who injected drug at the time of programme admission

Remarks: DRS-S - Shek Kwu Chau Treatment and Rehabilitation Centre (Newly / Re-admitted cases)
DRS-M - Methadone clinics (Newly admitted case only)
SAS - Street Addict Survey (From the society for the Aid and Rehabilitation of Drug Abusers)
Data of DRS-S suspended since 2004, and resumed in Jul 2006.

6. TABULATED RESULTS OF HIV-1 GENOTYPING STUDIES

System description:

- This is a laboratory based reporting system contributed by Virology Division of Public Health Laboratory Services Branch, Centre for Health Protection, Department of Health. HIV viral isolates are collected from the confirmatory laboratories for subtype analysis which are collated with epidemiological information when available. Subtype results are submitted monthly by Virology Division. The confirmatory laboratories included in this surveillance system are: Public Health Laboratory, Microbiology laboratories of Queen Elizabeth Hospital and Prince of Wales Hospital. Subtype analysis was commenced since 2001

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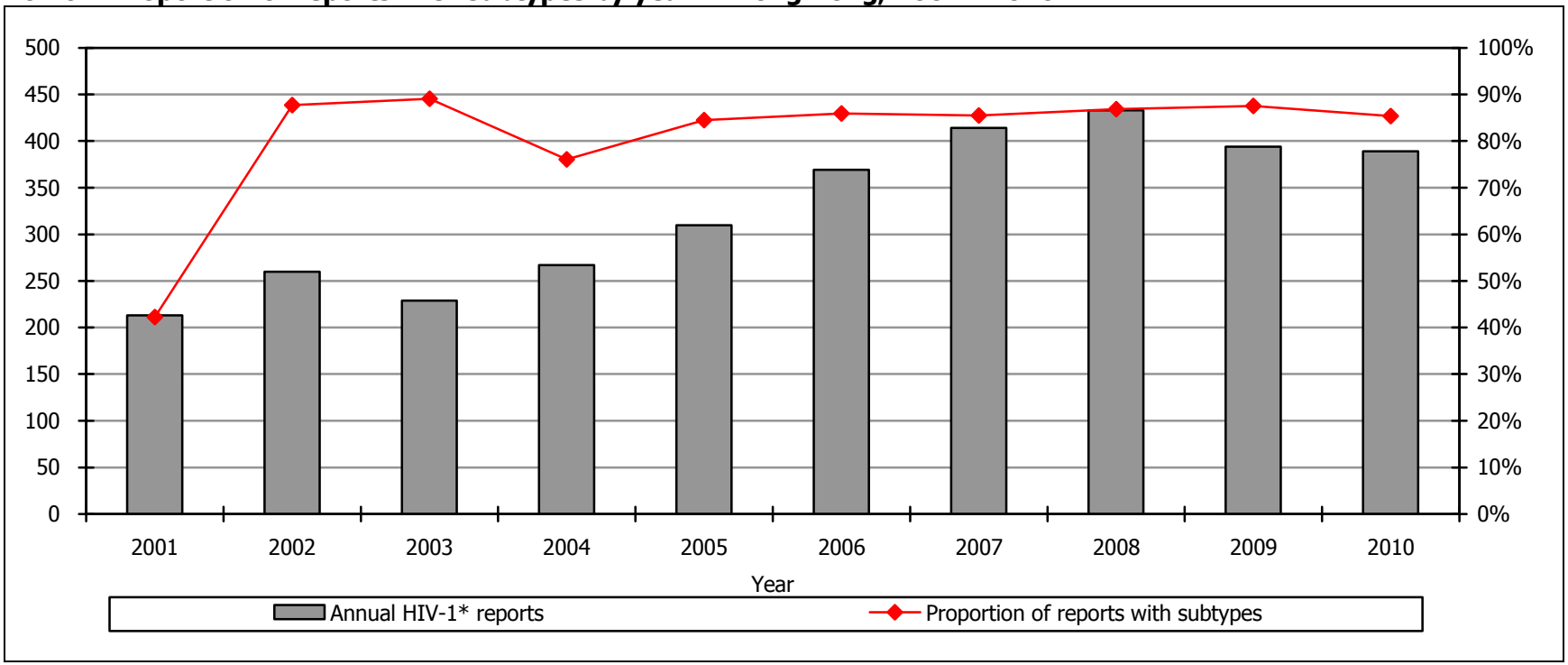
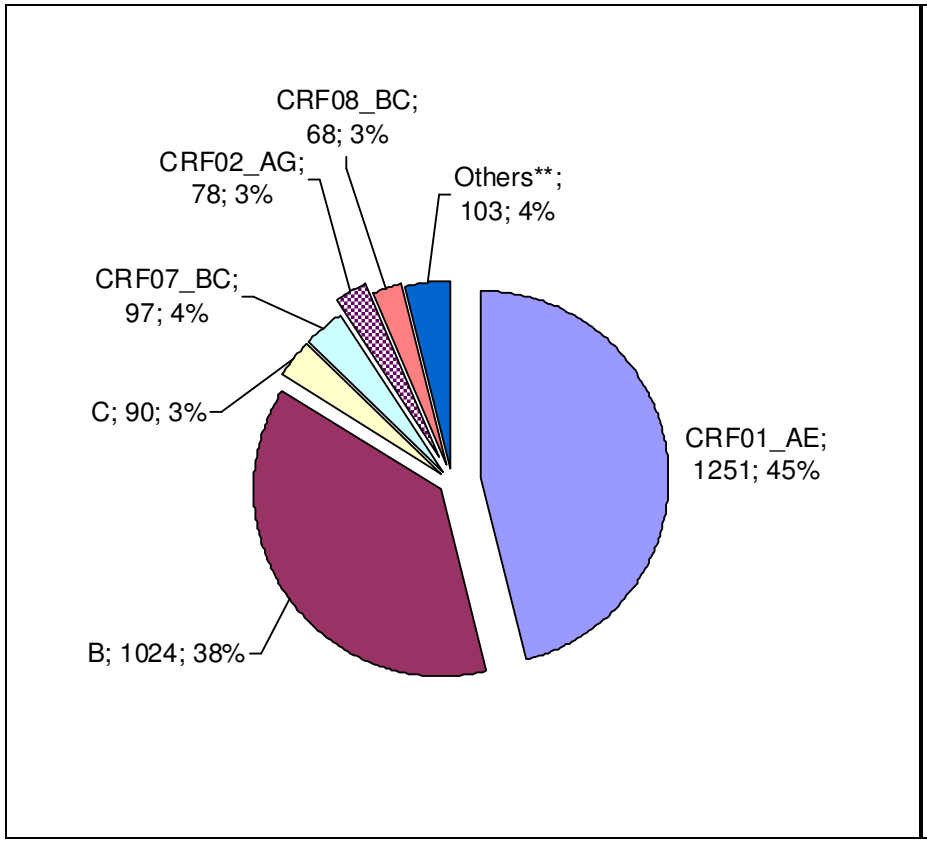
Box 6.1 Proportion of reports with subtypes by year in Hong Kong, 2001 - 2010



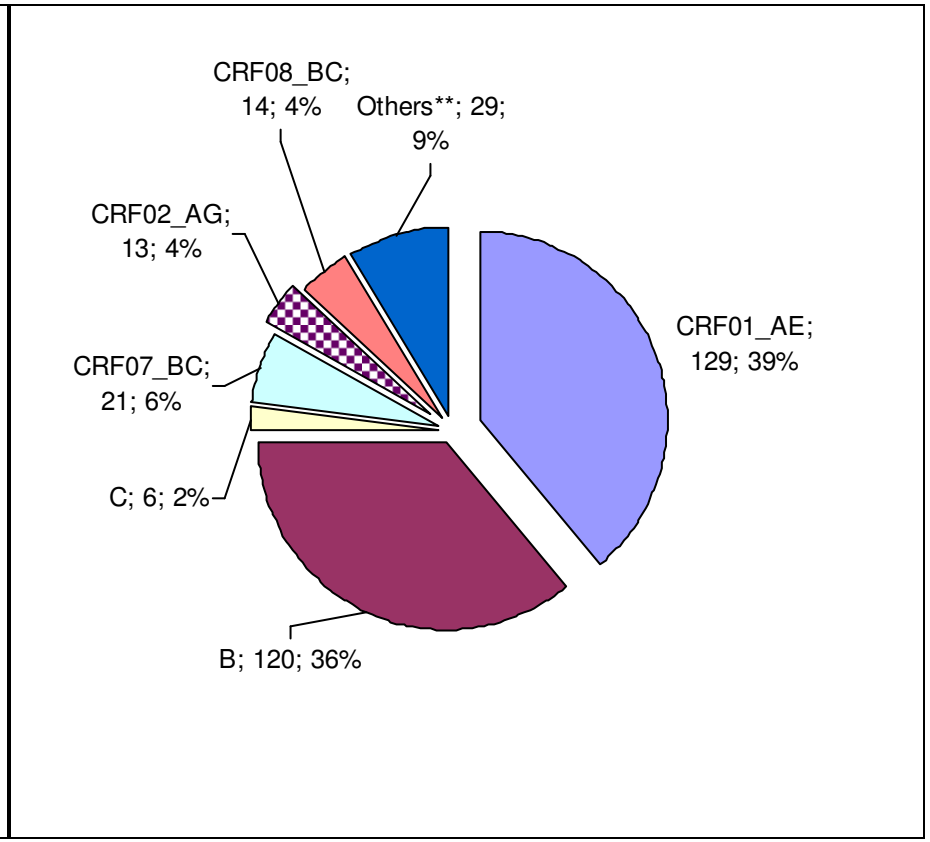
*: including cases with HIV type 1 or PCR positive result.

Box 6.2 Distribution of HIV-1* subtypes

(i) Cumulative (2001-2010)

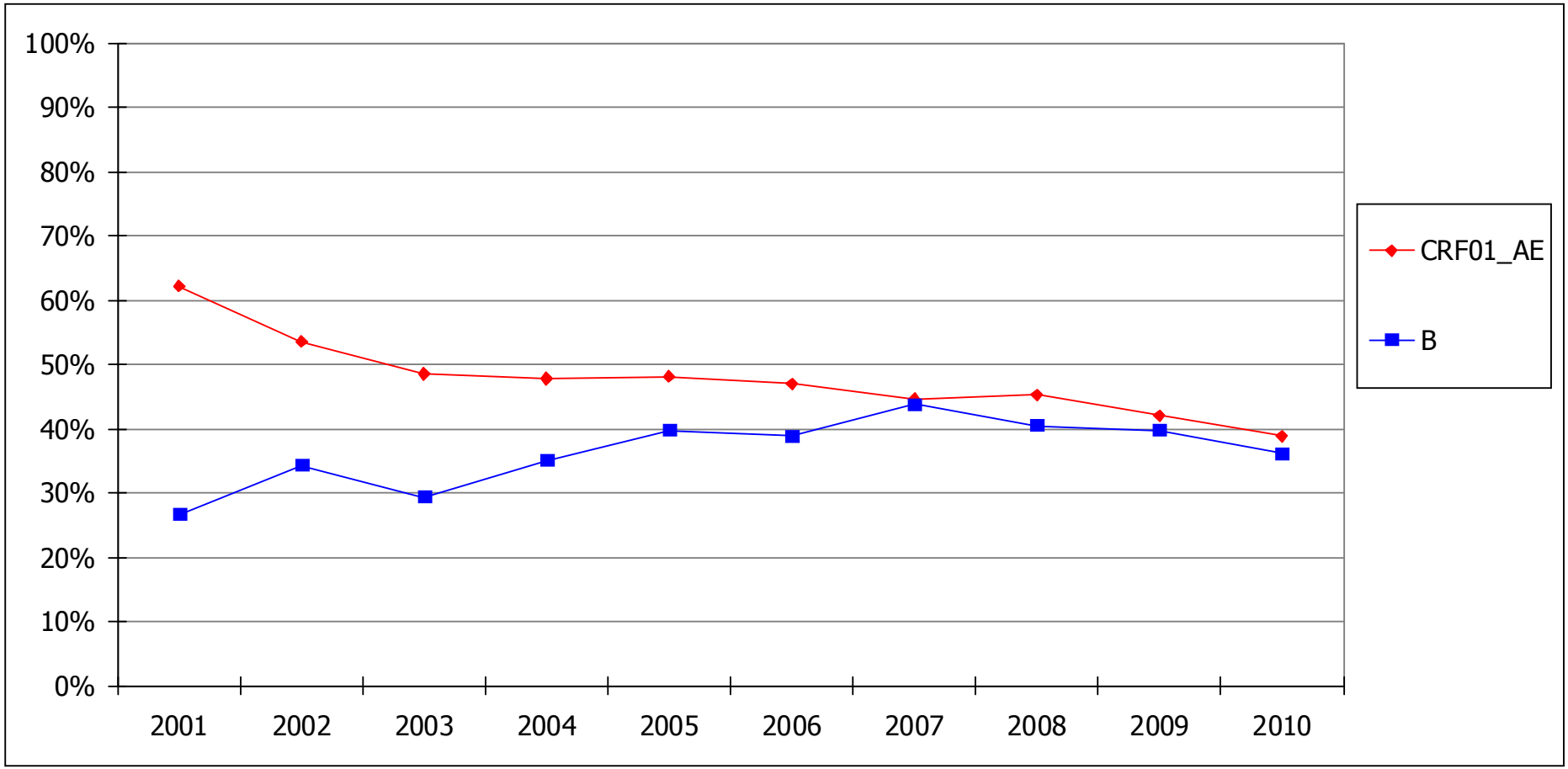


(ii) Year 2010



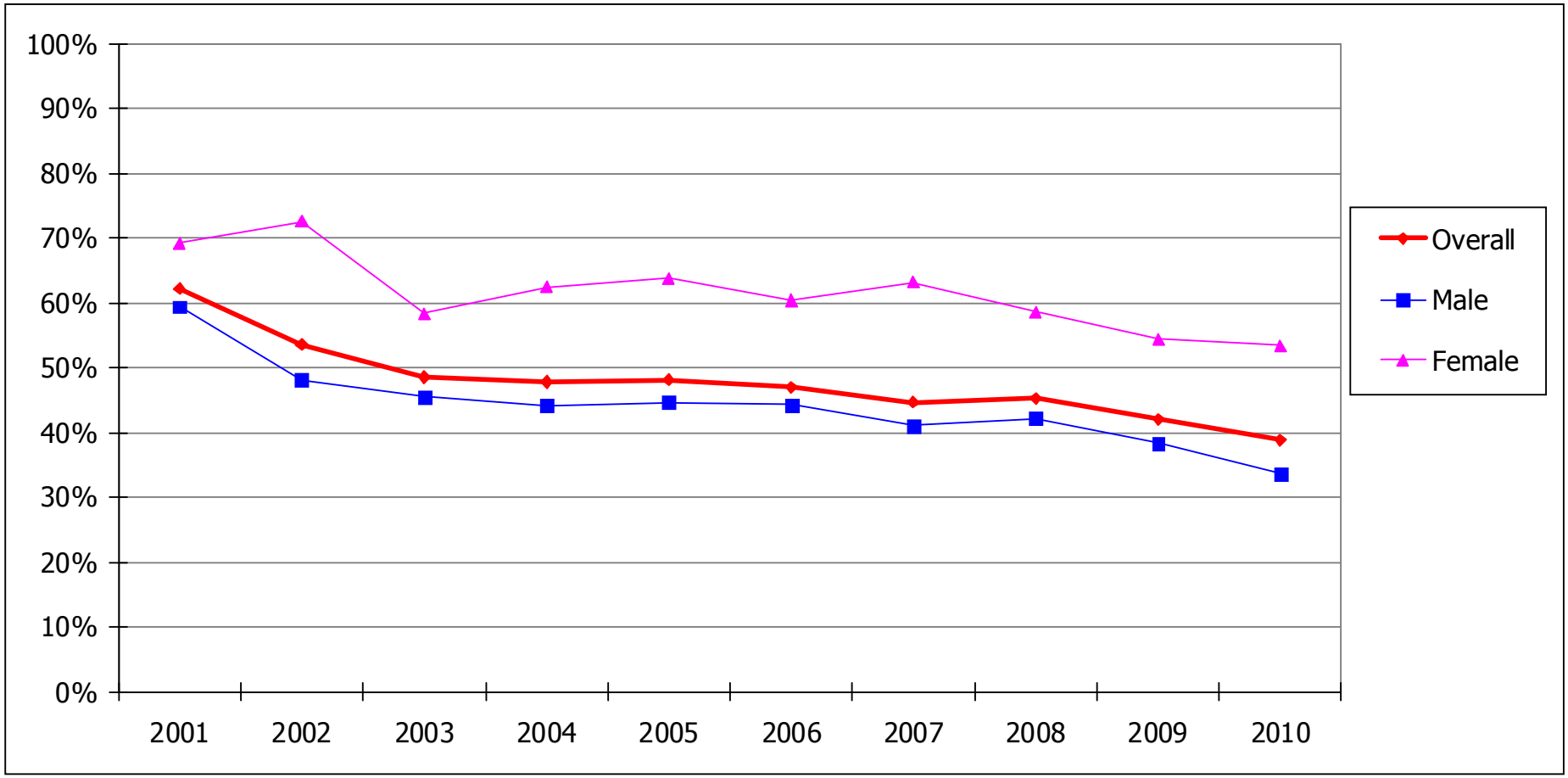
*: including cases with HIV type 1 or PCR positive result.
**: including subtype A, A1, B', D, F, F1, G, CRF03_AB, CRF05_DF, CRF06_CPX, CRF10_CD, CRF11_CPX, CRF12_BF, CRF13_cpx, CRF14_BG and CRF15_01B.

Box 6.3 Trend in most common HIV-1* subtypes in Hong Kong, 2001 – 2010



*: including cases with HIV type 1 or PCR positive result.

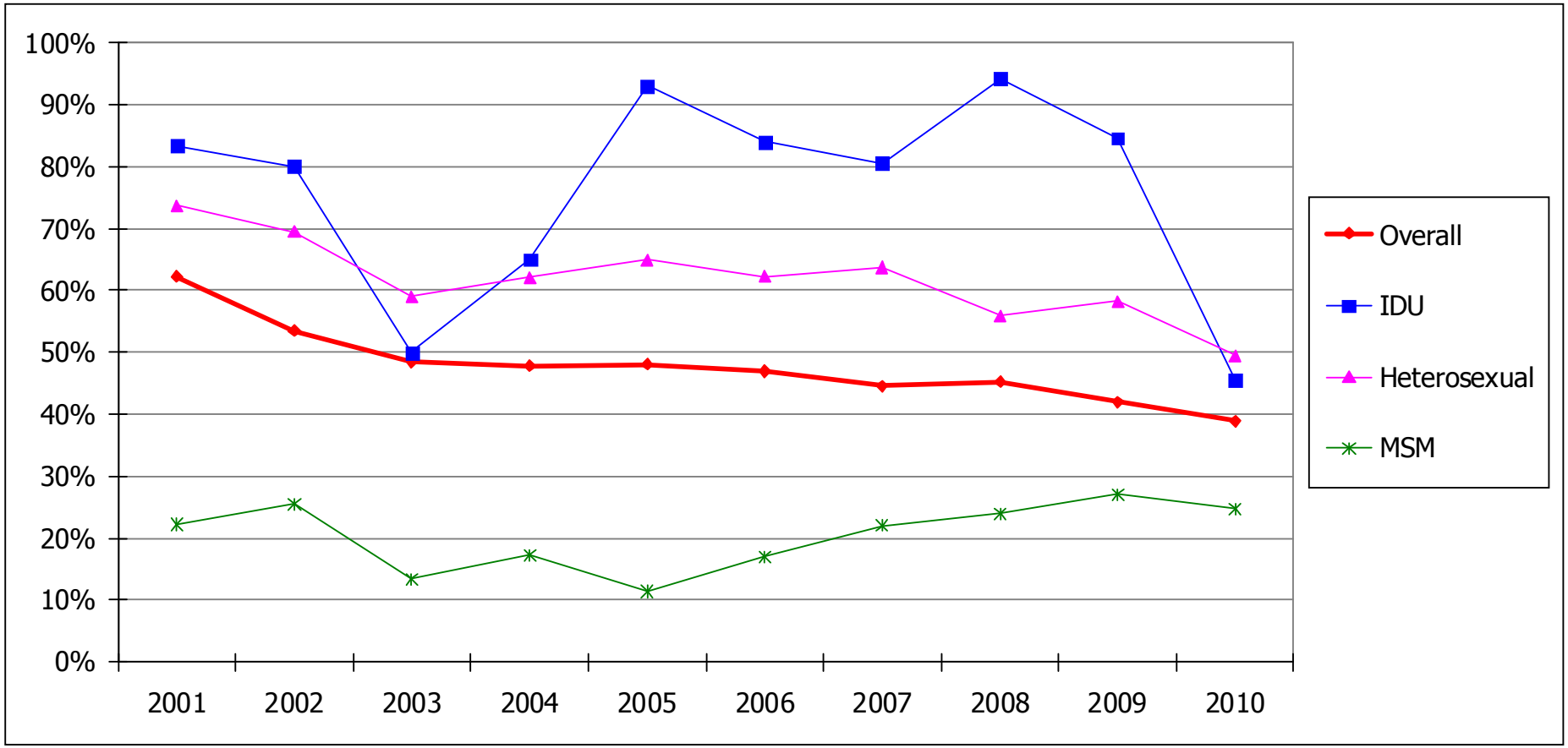
Box 6.4 Trend in HIV-1* subtype CRF01_AE in Hong Kong, 2001 – 2010
(a) By gender (proportion of cases with subtype CRF01_AE)



*: including cases with HIV type 1 or PCR positive result.

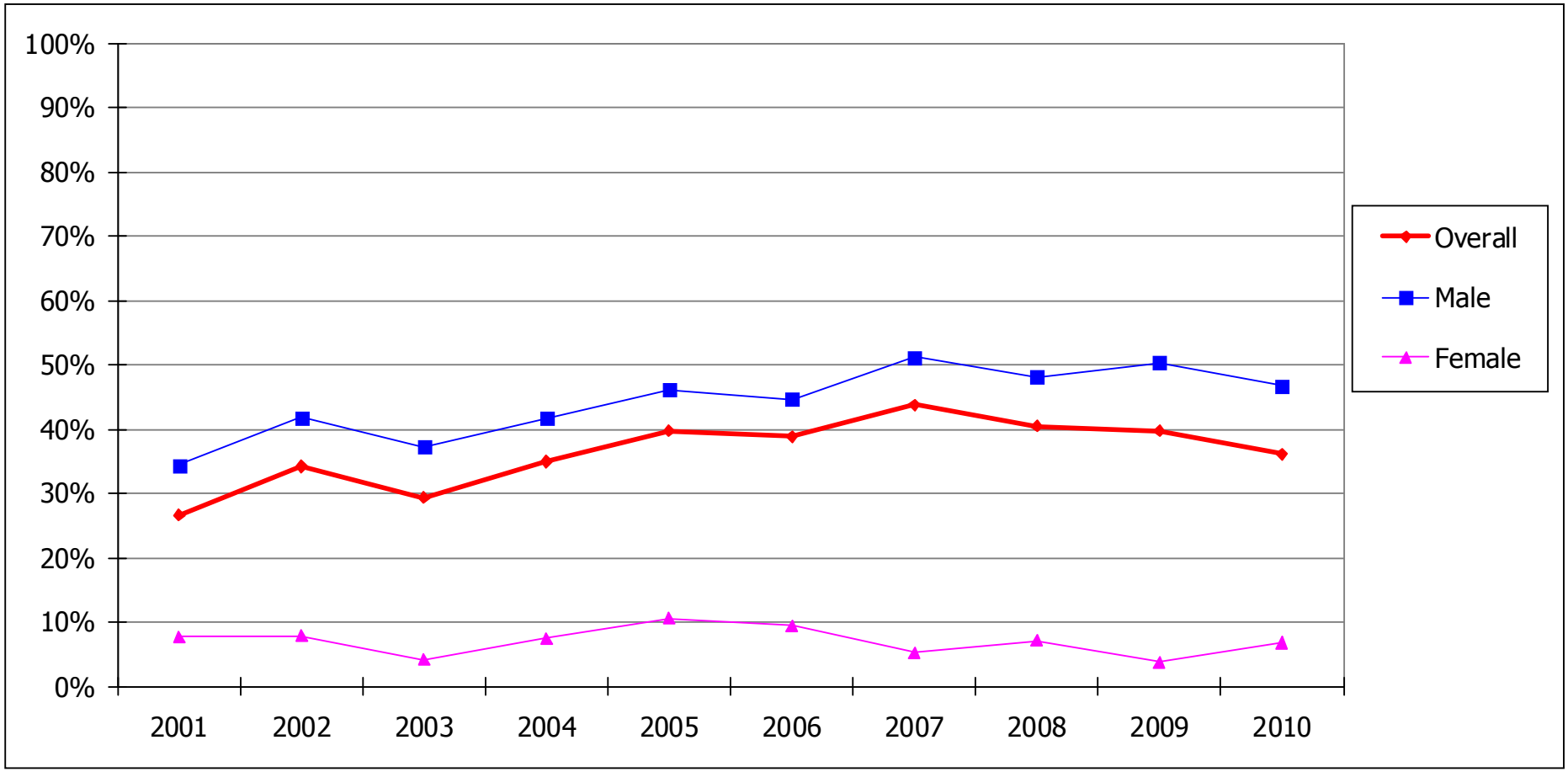
(b) By ethnicity (proportion of cases with subtype CRF01_AE)

(c) By route of transmission (proportion of cases with subtype CRF01_AE)



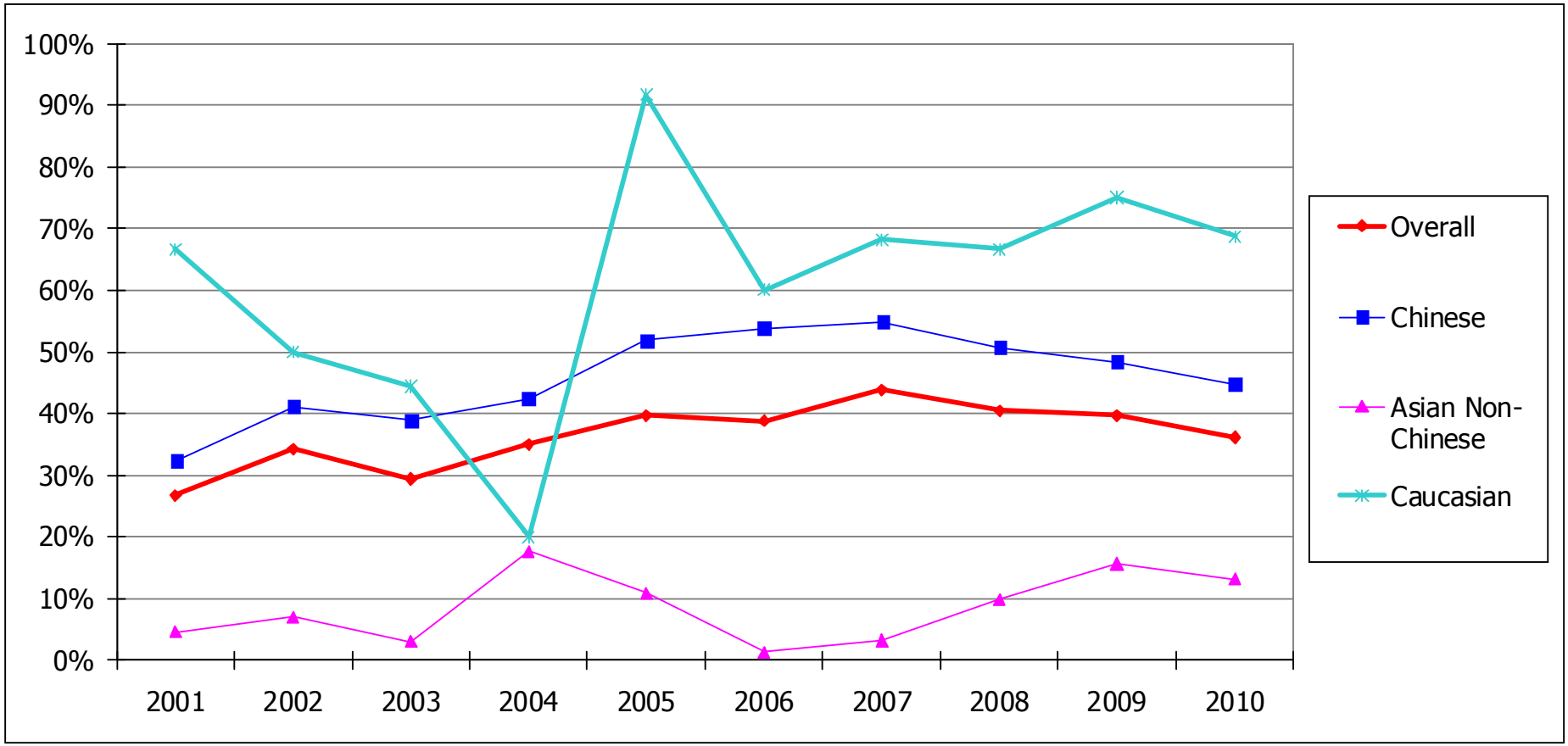
Box 6.5 Trend in HIV-1* subtype B in Hong Kong, 2001 – 2010

(a) By gender (proportion of cases with subtype B)

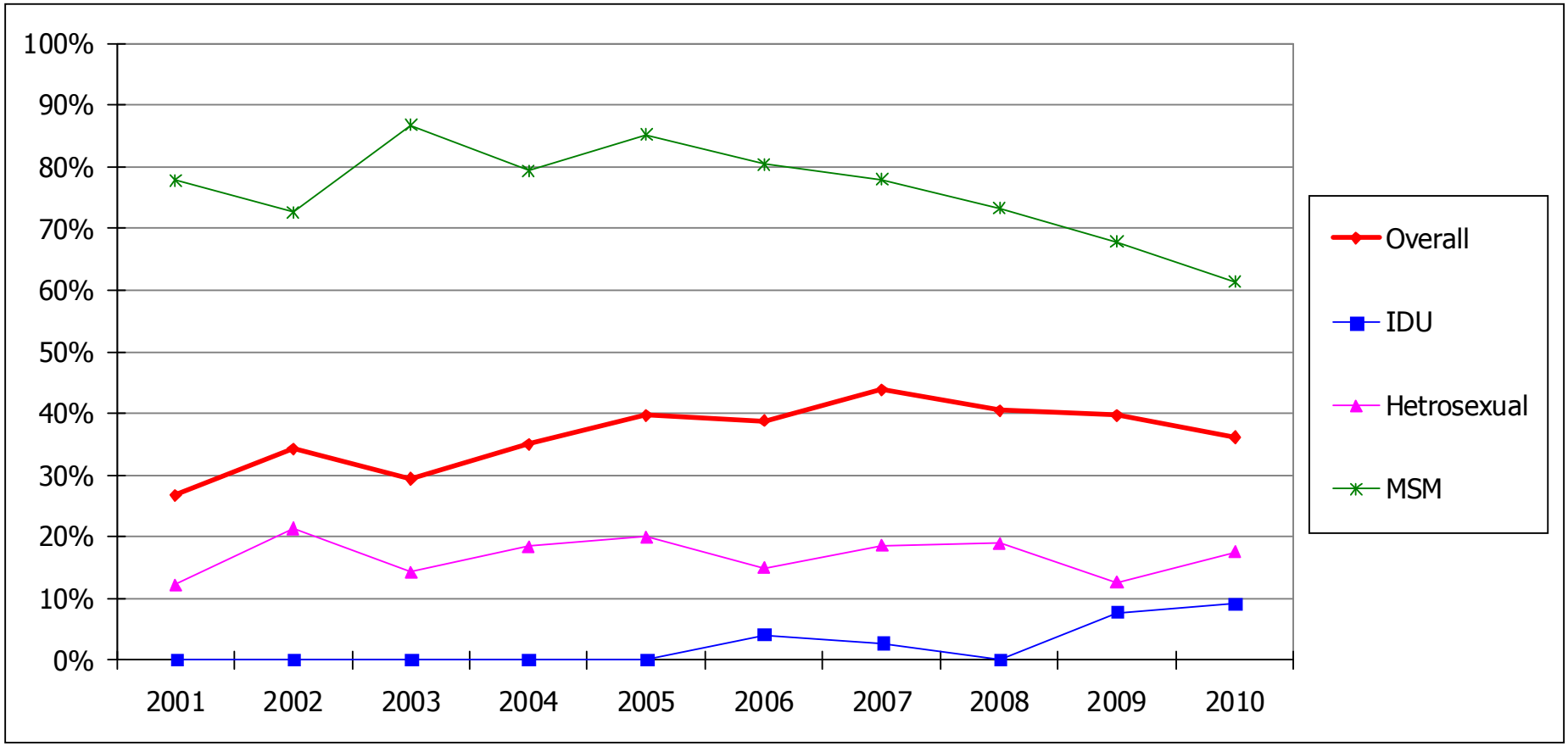


*: including cases with HIV type 1 or PCR positive result.

(b) By ethnicity (proportion of cases with subtype B)



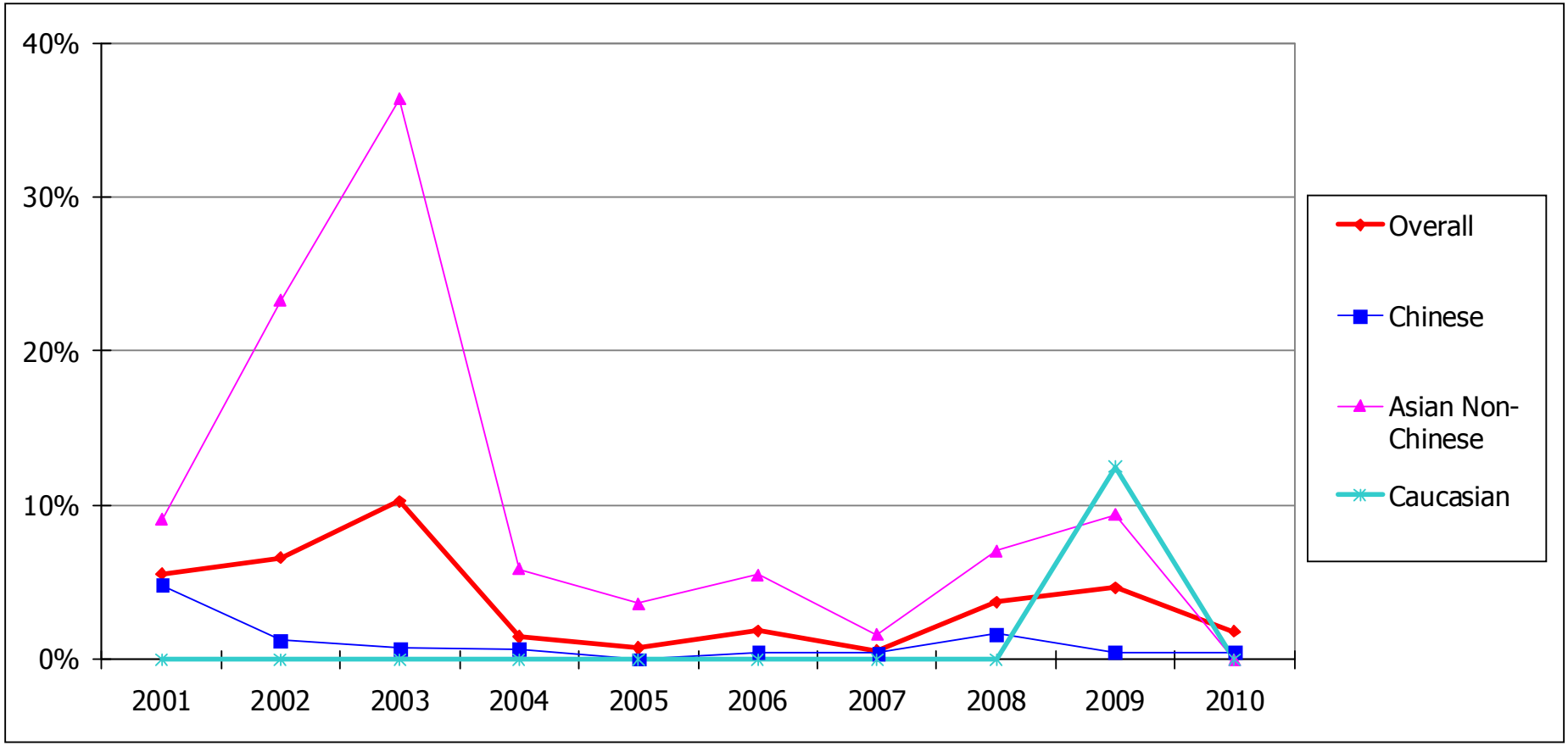
(c) By route of transmission (proportion of cases with subtype B)



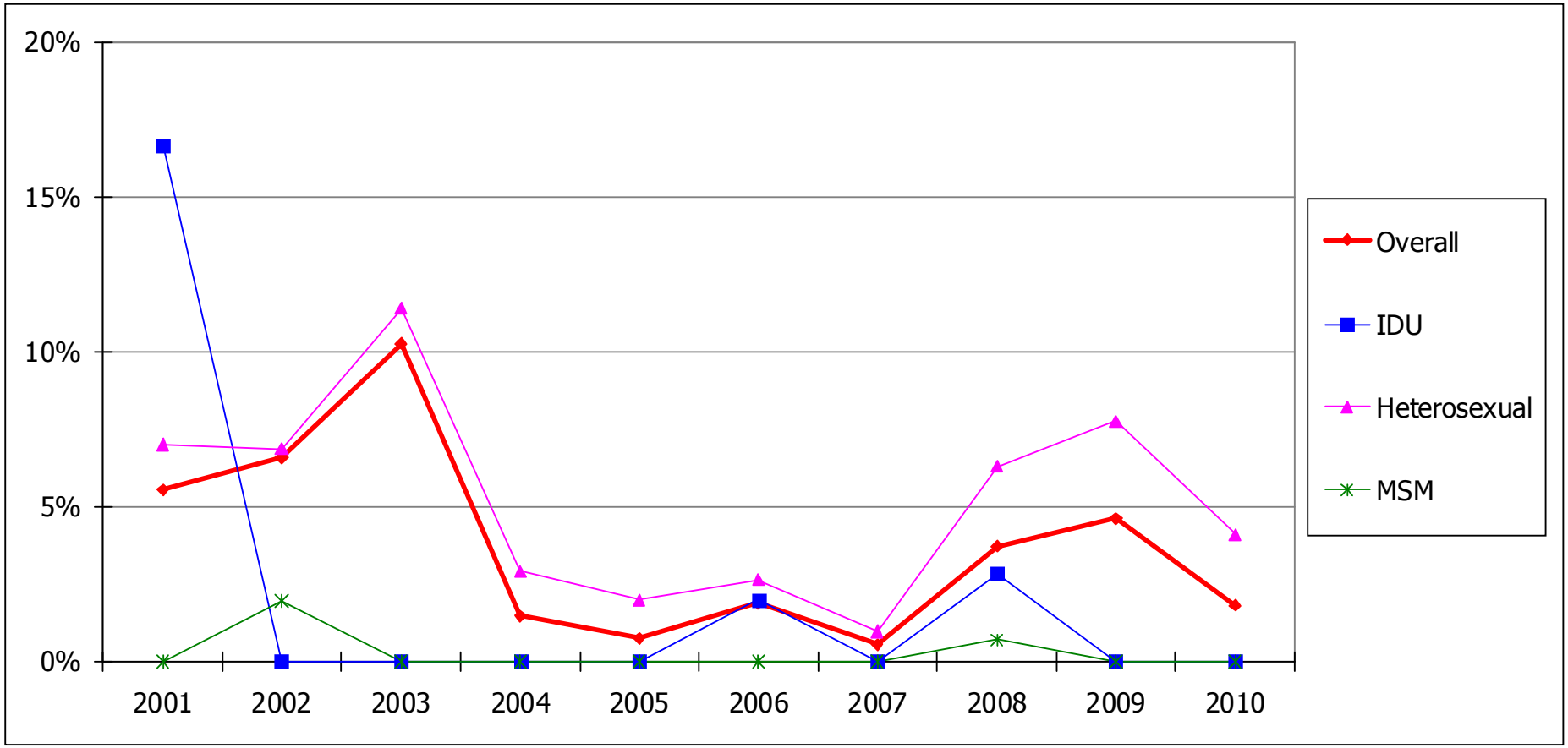
Box 6.6 Trend in HIV-1* subtype C in Hong Kong, 2001 – 2010
(a) By gender (proportion of cases with subtype C)

*: including cases with HIV type 1 or PCR positive result.

(b) By ethnicity (proportion of cases with subtype C)



(c) By route of transmission (proportion of cases with subtype C)



Appendix I: HIV/AIDS report form (DH2293)

DEPARTMENT OF HEALTH
HIV/AIDS Report Form

The HIV/AIDS voluntary reporting system has been in place since 1984. All doctors are encouraged to report patients with HIV/AIDS and to update status of the previously reported cases where appropriate. This is an anonymous and confidential system. Data collected is crucial for understanding the HIV epidemiology in Hong Kong and is used in global analysis only. Aggregate statistics are released quarterly and can be obtained at www.aids.gov.hk. For any query, please call 3143 7225 or email us at aids@dh.gov.hk.

Please complete ALL sections and '✓' in the appropriate box.

Section (A) – Report of HIV

[1] THIS is a ☐NEW report or ☐UPDATE of previous reported case

[2] Your reference code number[i]: _____ [3] Does the patient have a HK identity card? ☐Yes ☐No

[4] Sex : ☐M ☐F For female, is she pregnant? ☐No ☐Yes If yes, go to Box I

[5] Date of birth: / / (ddmmyyyy) OR Age at last birthday: _____

[6] Ethnicity: ☐Chinese ☐Asian ☐Caucasian ☐Black ☐Others: _____ ☐Unknown

[7] Suspected risk(s) for HIV infection[ii]

☐Heterosexual ☐Homosexual ☐Bisexual

☐Injecting drug use

☐Transfusion of blood/blood products (Haemophilia: ☐Yes ☐No)

☐Perinatal

☐Others, please specify: _____

☐Asked, but risk undetermined

☐Not asked

Box 1

Gravida ____ Para ____ LMP / / (ddmmyyyy)

Obstetric follow up clinic/ hospital :

Plan: ☐TOP ☐Continue pregnancy

Expected hospital/place of delivery: _____

[8] Suspected place of infection: ☐Hong Kong ☐Mainland China, specify: _____ ☐Others, specify: _____

☐Asked, but undetermined ☐Not asked

[9] Date of laboratory diagnosis in HK: / / (ddmmyyyy) [10] Western blot confirmation: ☐Yes ☐No

[11] Name of Laboratory: _____ [12] Laboratory Number, if a/v: _____

[13] Previous HIV diagnosis outside HK: ☐No ☐Yes If yes, date: / / (ddmmyyyy) place: _____

[14] Date of last negative HIV test: / / (ddmmyyyy)

[15] CD4 (cells/μl): _____ Date: / / (ddmmyyyy)

[16] HIV status of spouse/regular partner: ☐HIV positive ☐HIV negative ☐Unknown

Section (B) – Report of AIDS

[17] Has the patient developed AIDS[iii]: ☐ Yes ☐ No (Go to Section C)

[18] If yes, the AIDS defining illness(es) is (are):

(i) _____ Date of diagnosis: / / (ddmmyyyy)

(ii) _____ Date of diagnosis: / / (ddmmyyyy)

(iii) _____ Date of diagnosis: / / (ddmmyyyy)

[19] CD4 (cells/μl) at AIDS: _____ Date: / / (ddmmyyyy)

Section (C) – Report of deaths and defaults

[20] Has the patient died? ☐Yes ☐No If yes, date of death: / / (ddmmyyyy) Cause: _____

[21] Has the patient left HK/defaulted follow up? ☐Yes ☐No If yes, last seen on: / / (ddmmyyyy)

Section (D) – Correspondence

Name of medical practitioner: _____ ☐in private practice ☐in public service

Correspondence Address: _____

Tel: _____ Fax: _____

Email: _____ Date: / / (ddmmyyyy)

---

[i] Please put down any code of your choice (e.g., case number) for matching purpose only.

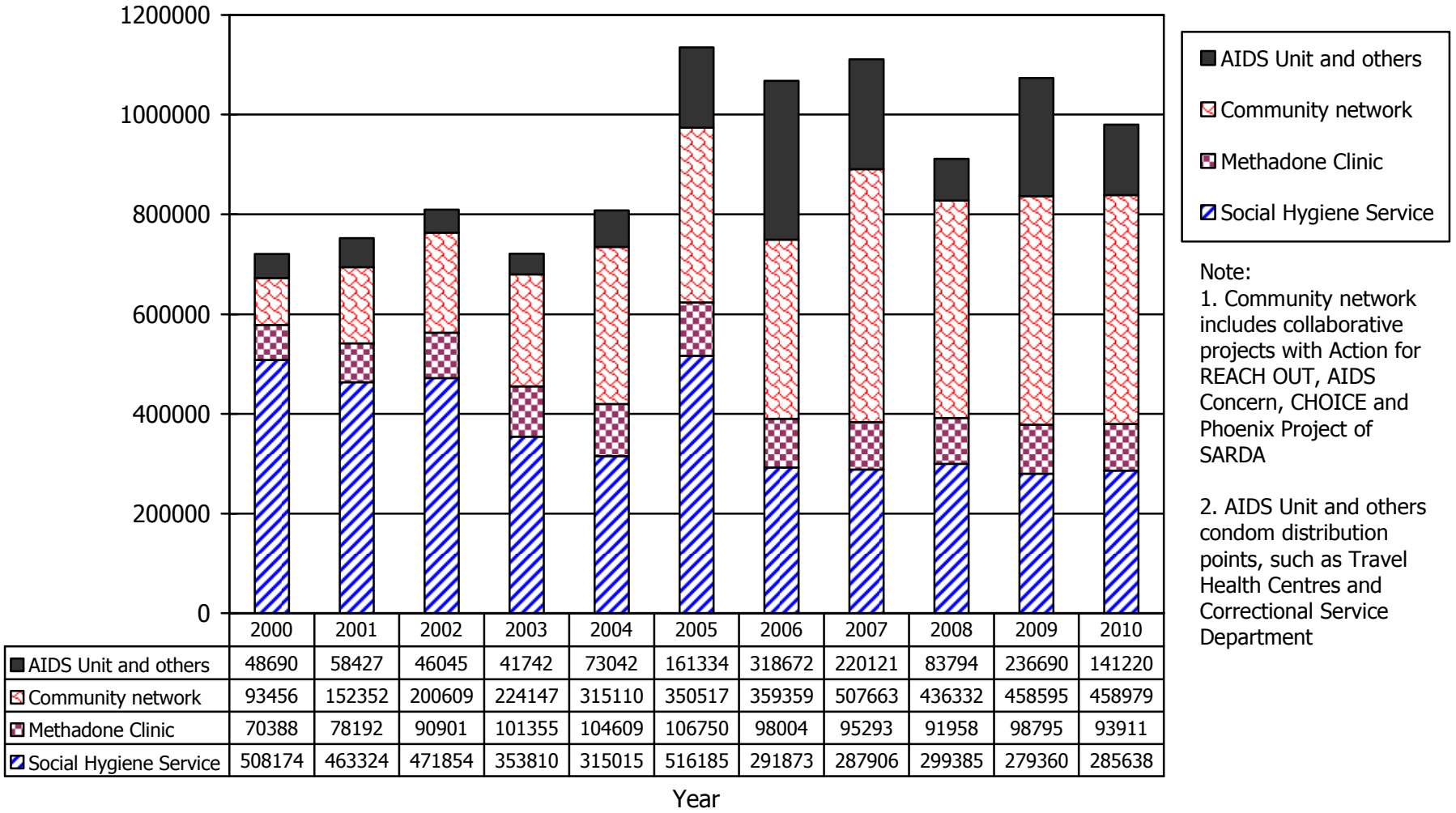
[ii] Please tick the most likely risk for contracting HIV infection. If there is more than 1 suspected risks, please put down 1 & 2 in descending order of the two most likely risks.

[iii] Surveillance definition of AIDS: a definitive laboratory diagnosis of HIV infection AND one or more of the AIDS indicator conditions (*July 1995, Scientific Committee on AIDS. Available at www.aids.gov.hk/report.htm).*

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

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 AIDS 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 *Herpes simplex*: 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 *Mycobacterium tuberculosis*; extrapulmonary or pulmonary/cervical lymph node (only if CD4<200/ul) Pneumonia, recurrent Penicilliosis, disseminated Mycobacterium, other species or unidentified species, disseminated or extrapulmonary *Pneumocystis carinii* pneumonia Progressive multifocal leukoencephalopathy Salmonella septicaemia, recurrent Toxoplasmosis of brain Wasting syndrome due to HIV
Hong Kong has adopted the 1993 Centers for Disease Control and Prevention (CDC) AIDS classification with 3 modifications: (1) disseminated penicilliosis is added as one AIDS-defining condition, (2) pulmonary or cervical lymph node tuberculosis included only if CD4 < 200 µl, (3) a CD4 < 200 µl without any AIDS-defining condition is not counted as AIDS.	

Appendix III: Condom distribution for the prevention of HIV and STI by Department of Health



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
AIDS Unit and others	48690	58427	46045	41742	73042	161334	318672	220121	83794	236690	141220
Community network	93456	152352	200609	224147	315110	350517	359359	507663	436332	458595	458979
Methadone Clinic	70388	78192	90901	101355	104609	106750	98004	95293	91958	98795	93911
Social Hygiene Service	508174	463324	471854	353810	315015	516185	291873	287906	299385	279360	285638

Note:
1. Community network includes collaborative projects with Action for REACH OUT, AIDS Concern, CHOICE and Phoenix Project of SARDA

2. AIDS Unit and others condom distribution points, such as Travel Health Centres and Correctional Service Department