

# **HIV SURVEILLANCE REPORT – 2001 UPDATE**

**Special Preventive Programme  
Department of Health  
Hong Kong  
December 2002**

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## PREFACE

This is the first annual surveillance report on HIV/AIDS published by the Special Preventive Programme (SPP) of the Department of Health. The publication marks the beginning of another new phase in the presentation of HIV epidemiology in Hong Kong.

Hong Kong has come a long way in the dissemination of HIV situation reports. We began with the release of monthly (subsequently quarterly) statistics on reported HIV/AIDS to the public. In 1995, the *Hong Kong STD/AIDS Update* was published. It's a quarterly bulletin covering both reported HIV/AIDS and caseloads of Social Hygiene Service, the latter reflecting the STI (sexually transmitted infection) situation. Special feature articles were added to illustrate the patterns. In 2001, yearly reports of two other components of the HIV surveillance programme – seroprevalence studies and behavioural surveillance – were published in the bulletin.

We are now moving to a new format of better informing the public and the profession. The *Hong Kong STD/AIDS Update* is transformed into quarterly sets of tables (beginning from the third quarter of 2002) on reported HIV/AIDS and Social Hygiene Service caseload that's accessible from the Virtual AIDS Office [www.aids.gov.hk](http://www.aids.gov.hk). Public announcement would continue to be made four times a year. On an annual basis, a consolidated surveillance report is published, in both hard copy and electronic version on internet. Subscribers would continue to receive this annual report. This is the very first issue of the annual report.

The annual surveillance report is divided into two main sections. The first section is a review article summarising the pattern and main features of HIV epidemiology in Hong Kong, based on data collected and synthesised by the SPP Surveillance Team. The second section comprises tables and figures on four main components of our surveillance programmes, namely, HIV/AIDS reporting, Social Hygiene caseloads, risk behaviour surveillance and HIV seroprevalence studies. Finally the report is annexed with useful documents relating to HIV surveillance in Hong Kong.

The switch to the new format crystallises our efforts to improve our system of information dissemination on HIV epidemiology. In view of the continuous nature of the improvement process, we welcome suggestions from our readers.

Surveillance Team  
Special Preventive Programme  
Department of Health  
January 2003



## **ACKNOWLEDGEMENTS**

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

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

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



## **1. EPIDEMIOLOGICAL REVIEW OF HIV INFECTION IN HONG KONG**

### **Background**

1. The HIV (human immunodeficiency virus) epidemic is caused by the HIV-1 virus that exists in various subtypes. There are three major routes for transmission – sexual contacts, exposure to contaminated blood or blood products, and perinatally from an infected mother to the child. The importance of each of these factors varies from one country to another. Other less common routes of transmission, for example, occupational exposure in health care settings, during transplantation, can be included in the category of blood exposure.

2. Globally, sexual transmission is the major mode of HIV spread. The risk of infection varies with the form of sexual activity, being higher with anal intercourse in the passive partner (0.1-0.3%) and lower in the active partner of vaginal sex (0.03-0.09%)<sup>i</sup>. More recently, oral sex has also been linked with the transmission of the virus<sup>ii</sup>. The exposure of contaminated blood refers largely to the sharing of needles in injecting drug users. Mother-to-child infection has resulted from extensive heterosexual transmission. With the advent of universal antenatal HIV testing and antiretroviral prophylaxis, perinatal infection has declined, particularly in western countries. On a global scale, HIV transmission in health care setting is rare.

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<sup>i</sup> Bartlett JG. *The Johns Hopkins Hospital 2000-2001 Guide to Medical Care of Patients with HIV Infection*. Philadelphia: Lippincott Williams & Wilkins, 2000.

<sup>ii</sup> UK Department of Health. *Review of evidence on risk of HIV transmission associated with oral sex*. Report of a working group of the UK Chief Medical Officer's Expert Advisory Group on AIDS. London, 2000. <http://www.doh.gov.uk/eaga/index.htm>



3. In Hong Kong, the first cases of HIV infection and AIDS were diagnosed in 1984 and 1985 respectively. This paper outlines the epidemiological situation as revealed by the results of the surveillance programmes maintained by AIDS Unit, Department of Health.

## **HIV/AIDS Surveillance in Hong Kong**

4. The HIV/AIDS surveillance system comprises the following programmes: (a) HIV/AIDS reporting, (b) seroprevalence studies, (c) STD surveillance and (d) behavioural surveillance and other research activities. Surveillance activities are undertaken through the Research Office of the AIDS Unit. The tabulated results of the four systems are incorporated in this annual report, while quarterly summary tables can be viewed and downloaded from the Virtual AIDS Office at [www.aids.gov.hk](http://www.aids.gov.hk)

5. The HIV/AIDS reporting programme is a dual mechanism involving the voluntary reporting of newly diagnosed HIV and AIDS cases by attending physicians using the DH2293 form (Appendix) and by laboratories providing confirmatory tests in the public service. Seroprevalence studies are conducted on selected communities. Methodologies such as unlinked anonymous screening<sup>iii</sup> have been applied to enhance our understanding of the HIV situation. STD surveillance is a separate system coordinated in conjunction with the Social Hygiene Service. Finally, behavioural surveillance is a rather new concept in HIV epidemiology. It was initiated as a pilot project in collaboration with Department of Microbiology, The University of Hong Kong<sup>iv</sup> in 1994, and is now a regular programme contributed by different agencies.

## **Routes of HIV Transmission**

6. As of the end of December 2001, a cumulative total of 1755 HIV infections have been reported. On a yearly basis, about two hundred cases are notified under the voluntary reporting mechanism to the Department of Health (Box 1.1). Through an analysis of the available epidemiological information, it was estimated that in 1999, the HIV prevalence in Hong Kong ranged between 2000 and 3000 (Revised projection of HIV infection and AIDS cases in Hong Kong by Dr James Chin, [www.aids.gov.hk](http://www.aids.gov.hk), a figure supported by results of seroprevalence studies. Officially, there were an estimated 2600 adults of age between 15 and 49 living with HIV/AIDS by the end of the year 2001.<sup>v</sup>

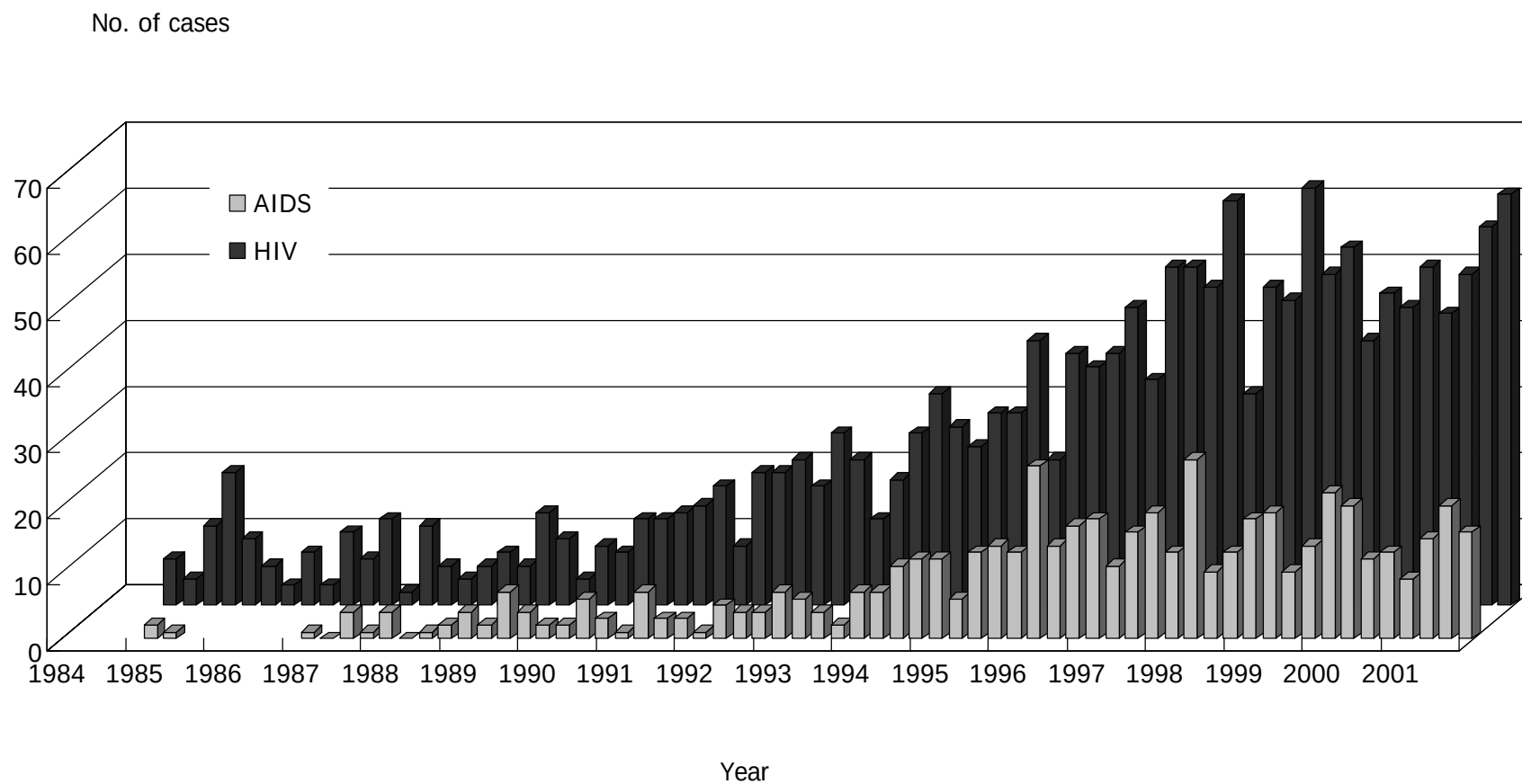
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<sup>iii</sup> Global Programme on AIDS. *Unlinked anonymous screening for the public health surveillance of HIV infection – proposed international guidelines*. Geneva: World Health Organisation, 1989. WHO/GPA/SFI/89.3

<sup>iv</sup> Department of Microbiology, the University of Hong Kong and Special Preventive Programme, Department of Health. *Assessing HIV risk in a population – final report of the AIDS Scenario and Surveillance Research project*. Hong Kong: Government printer, 2000.

<sup>v</sup> Joint United Nations Programme on HIV/AIDS. *Report on the global HIV/AIDS epidemic*. Geneva:UNAIDS,2002.

### Box 1.1 Reported HIV infection and AIDS in Hong Kong



### The central role of sexual transmission

7. Over the years, sexual transmission has remained the single most important route of HIV spread in Hong Kong. (Box 1.2) Not surprisingly, the HIV prevalence is highest in the age 25 to 34. From the reported figures, there has been a notable change from a predominantly homosexual to a heterosexual infection. Between 1985 and 1990, less than 30% of the reported sexually-acquired infections were heterosexuals. In 2001, this percentage has risen to 58.2%. These figures must be interpreted with care because of the different denominators involved. The importance of homosexually acquired infection should however not be ignored. Assuming that one-tenth of men in Hong Kong are homosexuals, the HIV prevalence in homosexual men is at least three to five times that of heterosexual men. In parallel there's been a narrowing of the male-to-female ratio from 8:1 in 1992 to about 3:1 in 1998 and beyond<sup>vi</sup>.

8. The Government Social Hygiene Clinic, which looks after a significant fraction of local STD patients, is an important source of HIV reports. Diagnosis of HIV infection in STD patients reflects, to a certain extent, the HIV rate in those who have practised high-risk sexual behaviour. So far, clients of Social Hygiene Clinic have accounted for about 15.6% of all known cases of HIV. However, the prevalence of HIV in STD patients remained at a low level of 0.06% in year 2001. On the other hand, commercial sex is often considered to be another marker of possible high-risk behaviours. There is no reliable figure for the HIV rates in commercial sex workers in Hong Kong. Condom use is one of the behavioural markers regularly monitored in STD patients. The proportion that always or frequently used condom for commercial sex was less than 30% in the last two years. The condom usage rate varies significantly from one community group to another, but has remained relatively stable over years in the same community<sup>vii</sup>.

### The potential risk of injecting drug use

9. Overseas observations have confirmed the propensity for rapid HIV spread to occur in the drug-taking communities once the virus gets into this very population. Hong Kong has so far been spared of this daunting phenomenon. 5.2% of the reported infections in 2001 were attributable to injecting drug use. Cumulatively it is 2.5%.

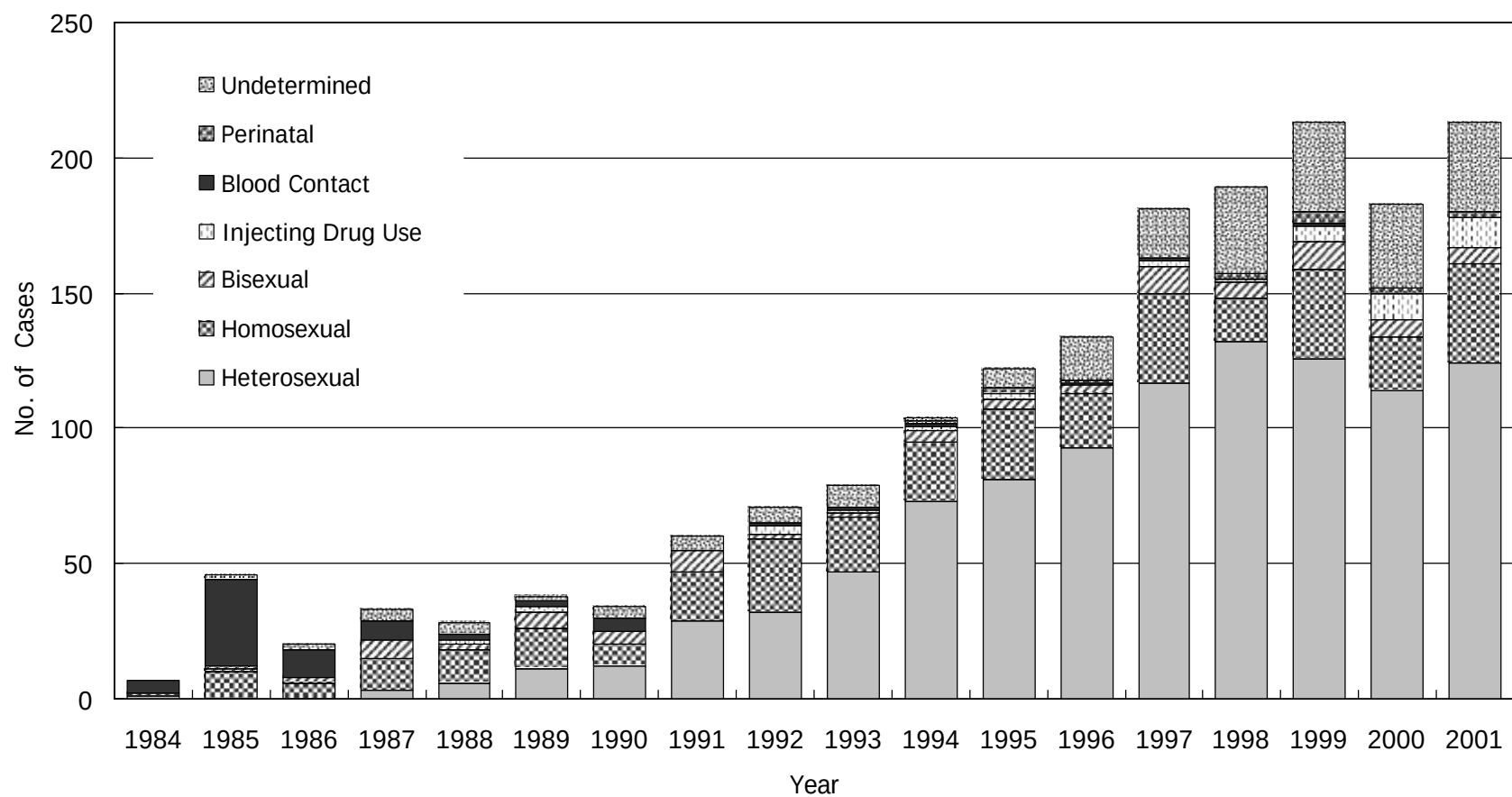
10. There are indications that HIV rates in drug users are rising. Unlinked anonymous screening of methadone users revealed a yearly positive rate of less than 0.1% up 1997, rising gradually in the ensuing years to between 0.1% and 0.3% in 1998 to 2001. The number of reported cases has also risen from not more than 3 per year before 1998, 6 in 1999, 10 in 2000 and 11 in 2001.

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<sup>vi</sup> Choi T, Lee SS. Tracking HIV infection: Hong Kong. *AIDS Reader* 2000;10(1):29-34.

<sup>vii</sup> Lee SS. An update on behavioural surveillance. *Hong Kong STD/AIDS Update* 2000;6(4):9-16.

**Box 1.2 Exposure categories of reported HIV infections in Hong Kong**



11. Behavioural surveillance has provided further insights into the potential risk of HIV spread in the drug-taking communities. The injection rates, for example, had varied with the locations of the surveys, being highest at 80% in those before admission to an inpatient drug treatment centre, and lowest at 20% in new registrants of methadone clinics<sup>6</sup>. The average needle-sharing rate was higher in street addicts, followed by methadone users and then those opted for inpatient treatment (20%, 10% and 5% respectively for the last years). There has however not been any significant change in the behaviours of drug users surveyed.

#### Contaminated blood and blood products – the historical past?

12. A total of 63 haemophilia patients and 4 transfusion recipients had contracted HIV before 1985 as a result of the use of contaminated blood product before blood screening and safer alternatives became available. Over the years about a quarter of the haemophiliacs have been tested positive for HIV. While the risk of transfusion has become a subject of the historical past, we were again reminded of the remote chance of infection from blood collected during the window period, when a patient actually got infected in 1997. There is no absolute safety despite the implementation of donor deferral, donor screening for HIV antibody and the recent introduction of Nucleic Acid Test (NAT) by the Hong Kong Red Cross Blood Transfusion Service. An infinitesimal residual risk of infection remains.

#### Mother-to-child transmission: cause for concern

13. A study coordinated by AIDS Unit had identified a total of 41 incidents of HIV positive pregnancies between 1992 and 1999. As of the end of the year 2001 reports of 14 cases of mother-to-child infections have been received, accounting for less than 1% of the cumulative total of reported HIV cases. A significant proportion of the reported infections were diagnosed only after the birth of the infected children. The Advisory Council on AIDS had proposed the strategy of universal antenatal HIV testing in Hong Kong<sup>viii</sup>, a move which may affect the profile of the infections in Hong Kong.

### **The Setting of HIV Diagnosis**

14. HIV infection may present in one of the following settings: firstly, in the process of receiving voluntary counselling and testing (VCT) because of the perceived HIV risk, while one is still asymptomatic; secondly, undergoing an HIV test when seeking treatment for a condition that shares the same risk factor, for example sexually transmitted disease (STD) or drug addiction; thirdly, in the workup when one presents with a clinical complication.

15. Over the years, a significant proportion of the HIV positive cases presented only after one had progressed to AIDS. Overall, about a third of the HIV infections were detected within three months of the corresponding AIDS diagnosis<sup>ix</sup>. Only 15% were reported from an AIDS service where VCT was offered, and another 15% from the Government's STD service, both considered as the avenues for early diagnosis.

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<sup>viii</sup> Advisory Council on AIDS Secretariat. Rounding up the 34<sup>th</sup> meeting. *ACA Newsfile* 2000;7:43.

<sup>ix</sup> Chan CN. An overview of HIV infections and AIDS in Hong Kong. *Hong Kong STD/AIDS Update* 2001;7(1):6-19.

16. *Pneumocystis carinii* pneumonia (PCP) remains the single most important ADI over the years. In the year 2001, PCP accounted for 43.3% of all ADIs, followed by tuberculosis. *Penicillium marneffei* is a unique infection occurring in South East Asia, including Hong Kong. Penicilliosis has been included as one of the ADIs in the definition established by the Scientific Committee on AIDS<sup>x</sup>. Between 1 to 7 cases were reported annually. Box 1.3 shows the distribution of the major AIDS defining illnesses in Hong Kong. The access to antiretroviral therapy is gradually changing the landscape of AIDS with the number of reported AIDS reaching a plateau since 1997.

### **Molecular Epidemiology of HIV in Hong Kong**

17. As a pilot, the HIV subtypes of reported HIV infection were determined in a study involving the Department of health and the University of Hong Kong. Preliminary data suggested that both B and CRF01\_AE were the major subtypes. Over time, there was an increase in the frequency of the CRF01\_AE subtype, a decrease of the B subtype, and emergence of the new subtypes of C, B' and B'/C. The CRF01\_AE subtype was more common in female, Chinese, heterosexuals and injection drug users whereas B subtype in male, White and people with homo-/bisexual contacts.

18. One important function of molecular epidemiology is to determine if there have been any common sources of infection in Hong Kong. Genetic clustering was found only in a few homo/bisexual pairs, mother-and-child pairs and a number of non-Chinese injection drug users.

### **Determinants of HIV Spread in Hong Kong**

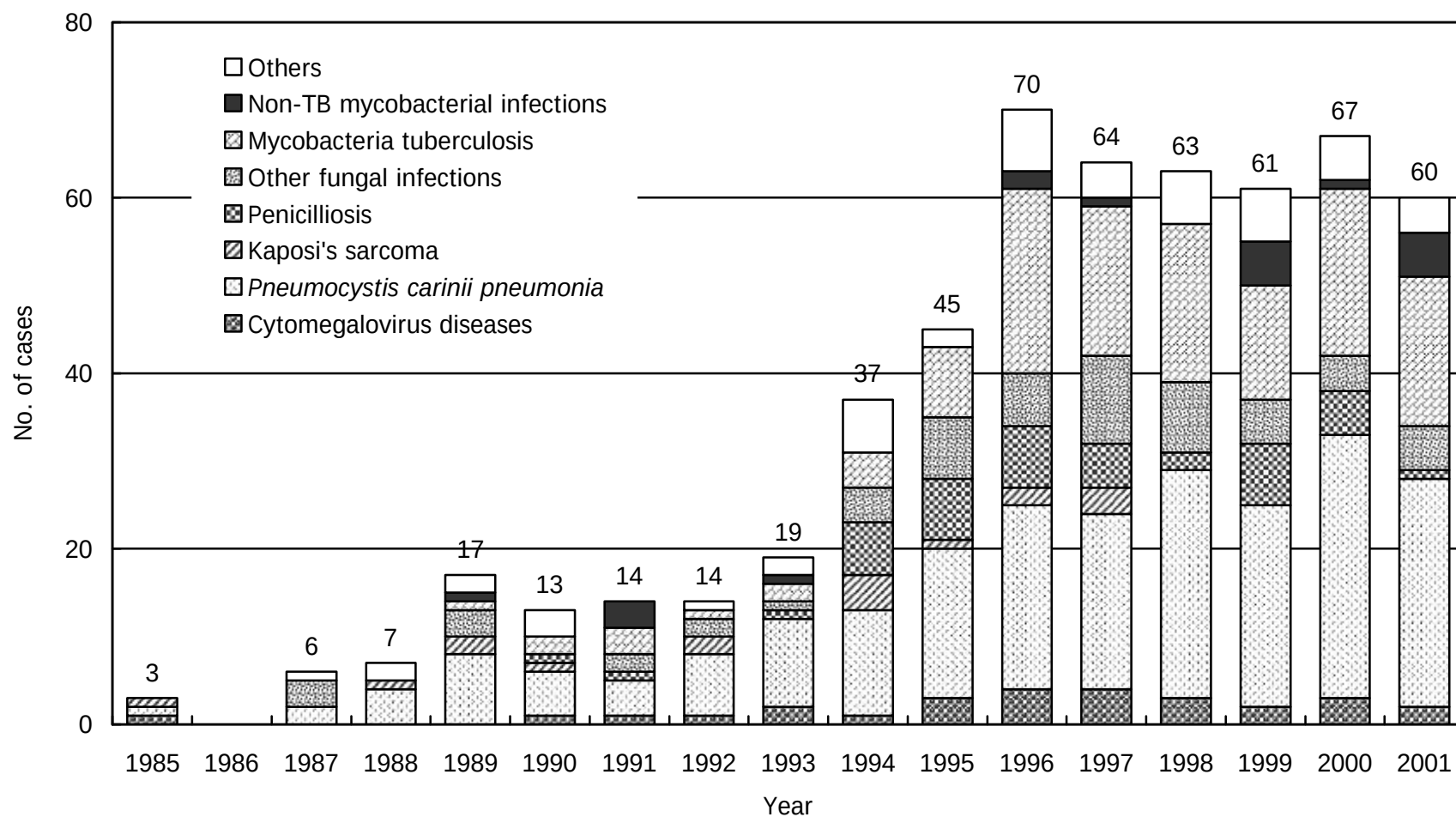
19. What would the future patterns of HIV infection in Hong Kong be like? Two questions are proposed to help us predict the future. Firstly, are new infections happening? Secondly, are there societal forces that would affect the practice of risk behaviours in Hong Kong?

20. The determination of incidences is the key to understanding the occurrence of new infections. For HIV infection there is the intrinsic problem in assessing new infections because of (a) the absence of reliable laboratory tests for incidence testing, and (b) the difficulty in characterising the onset of infection clinically. In evaluating all newly reported HIV cases in the past ten plus years, it is evident however that the median age has remained relatively constant at 32 to 36. The absence of age cohort effect testifies to the occurrence of new infections here in Hong Kong.

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<sup>x</sup> Scientific Committee on AIDS. *Classification system for HIV infection and surveillance case definition for AIDS in adolescents and adults in Hong Kong*. Hong Kong: Advisory Council on AIDS, 1995.

**Box 1.3 Reported primary AIDS defining illnesses**



21. Knowingly, one's practice of risk behaviours exposes him/her to HIV infection. On the population scale, these behaviours are influenced by societal forces which either predispose individuals to or protect them from the virus. Human mobility is one such driving force. As a city in the Pearl River Delta region, there are ten times more people coming in and out of Hong Kong than the number of residents themselves. The human interaction in Hong Kong and the neighbouring cities is far more complex than can be imagined. Cross-border commercial sex, drug trafficking and the practice of illicit drug use are but some of the determinants of possible HIV spread. A quantification of the HIV risk of human mobility is an impossible task. On the other hand, a supportive environment is extremely important in ensuring the consistent practice of safer behaviours. Condom promotion, harm reduction in drug users, a favourable legal framework, access to HIV testing and care are the building blocks of a supportive environment. So far, the network of methadone clinics, currently serving some 7000 drug users daily, has been providing a "safety net" to guard against HIV spread in the drug-taking communities. Regular methadone users are less frequent injectors and have a lower tendency to share needles<sup>xi</sup>. It must be noted however that the delicate equilibrium in methadone users, now with a low HIV rate, may be tipped once HIV is introduced.

*[This report was based on an earlier report published in the HIV Manual 2001 by the Special Preventive Programme, with the incorporation of new surveillance data collected through the end of 2001. For results of the specific surveillance systems, readers are advised to refer to the following chapters]*

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<sup>xi</sup> Unpublished results of a study of Special Preventive Programmes in 1999.



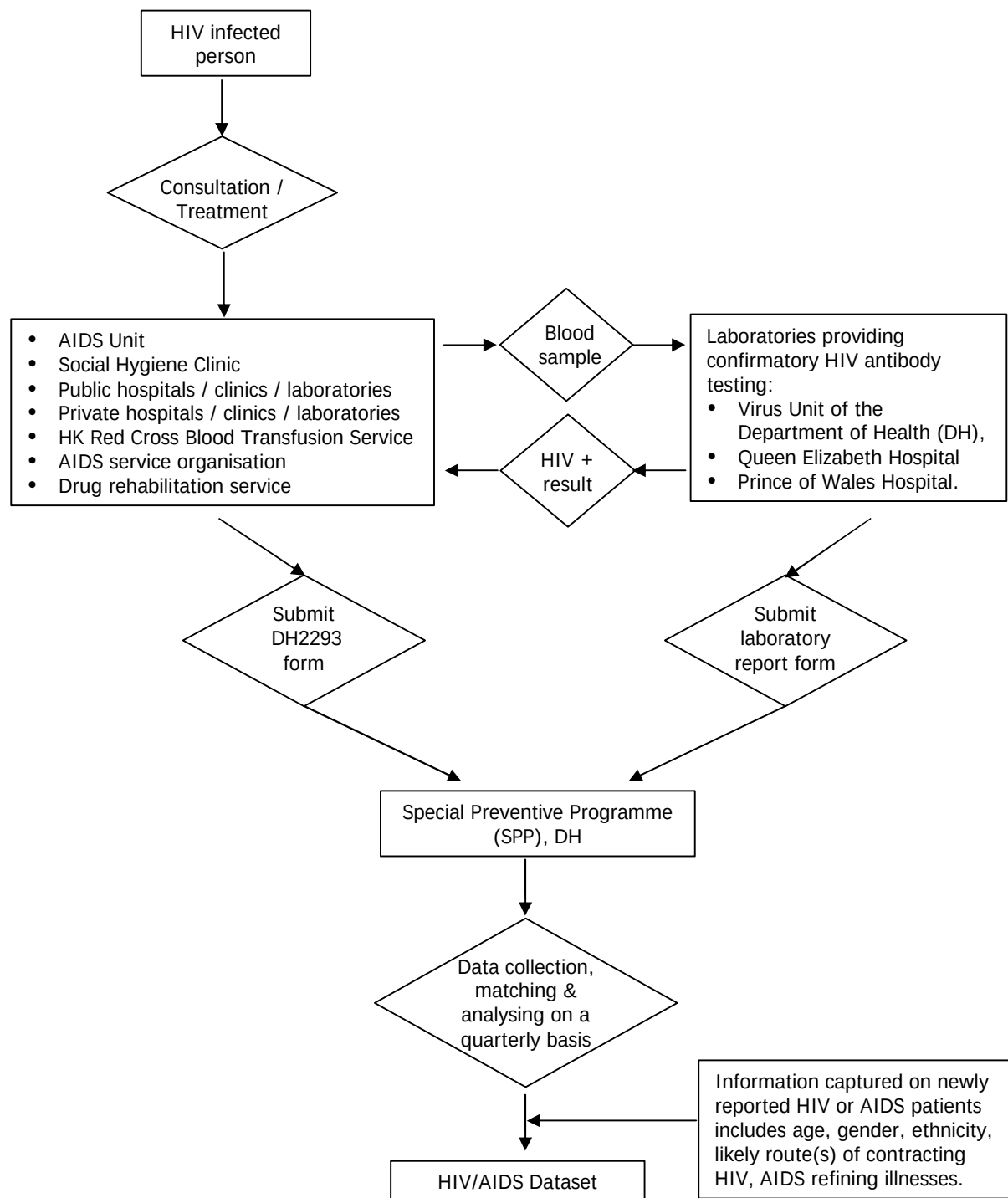


## **2. TABULATED RESULTS OF HIV/AIDS REPORTING**

### **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.

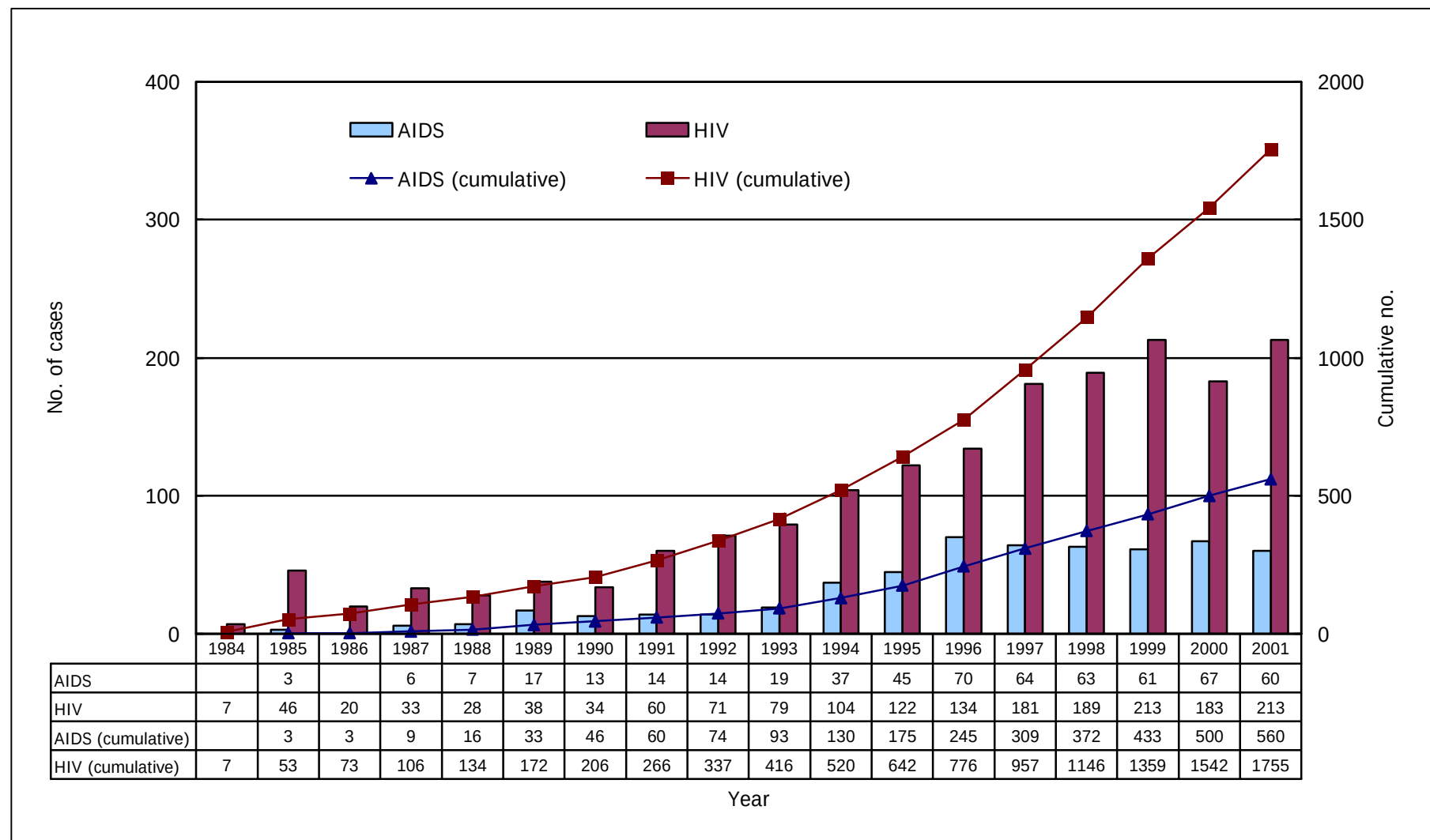
## System layout



## Tables & Figures

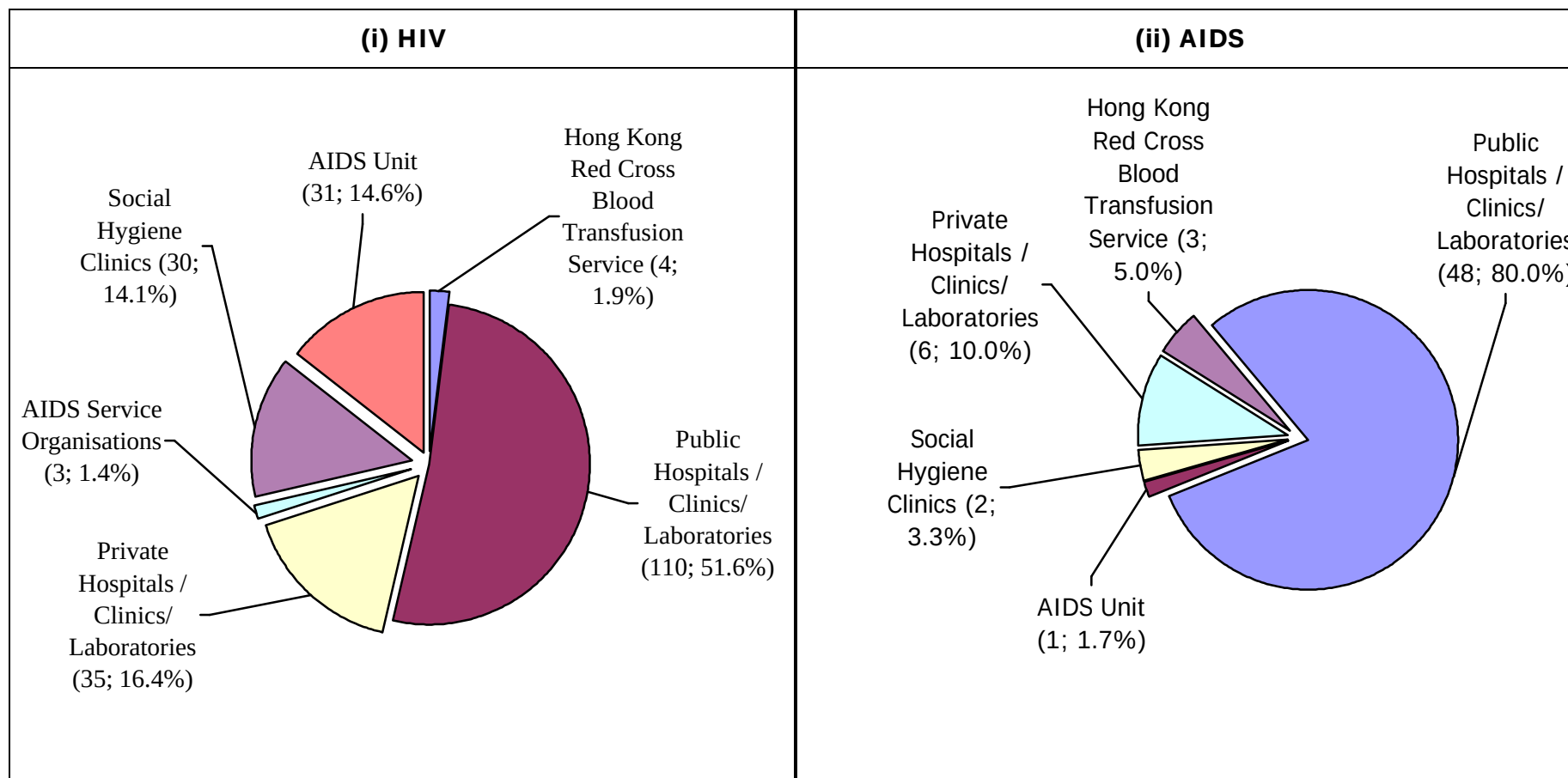
| Number  | Title                                                                                                                                                                                                                                                                       |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Box 2.1 | Annual reports of HIV infection & AIDS                                                                                                                                                                                                                                      |
| Box 2.2 | Source of reporting<br>- (a) For year 2001<br>- (b) Cumulative (1984 - 2001)                                                                                                                                                                                                |
| Box 2.3 | Reported HIV/AIDS by ethnicity and gender<br>- (a) For year 2001<br>- (b) Cumulative (1984 - 2001)                                                                                                                                                                          |
| Box 2.4 | Age distribution of reported HIV/AIDS<br>(a) Median age of reported HIV/AIDS<br>(b) Age & gender of reported HIV infection (cumulative, 1984 - 2001)<br>(c) Age & gender of reported AIDS (cumulative, 1985 - 2001)<br>(d) Adults & children with reported HIV/AIDS in 2001 |
| Box 2.5 | Exposure category of reported HIV/AIDS<br>(a) Distribution of HIV infection cases by exposure category 1984 - 2001<br>(b) Distribution of reported AIDS by exposure category 1985 – 2001                                                                                    |
| Box 2.6 | Reported HIV/AIDS in drug users<br>(a) Reported HIV infected drug users – by gender<br>(b) Reported AIDS drug users – by gender                                                                                                                                             |
| Box 2.7 | Distribution of sexual acquired HIV infection<br>(a) Yearly report of sexually acquired HIV<br>(b) Yearly report of sexually acquired AIDS<br>(c) Ratio of Heterosexual vs. homo/bisexual men reported with HIV/AIDS                                                        |
| Box 2.8 | Age-specific rate of sexually acquired HIV infection<br>(a) Age-specific rate of sexually acquired HIV infection in men<br>(b) Age-specific rate of sexually acquired HIV infection in women                                                                                |
| Box 2.9 | Profile of AIDS defining illnesses for 1985 to 2001                                                                                                                                                                                                                         |

## Box 2.1 Annual reports of HIV infection & AIDS

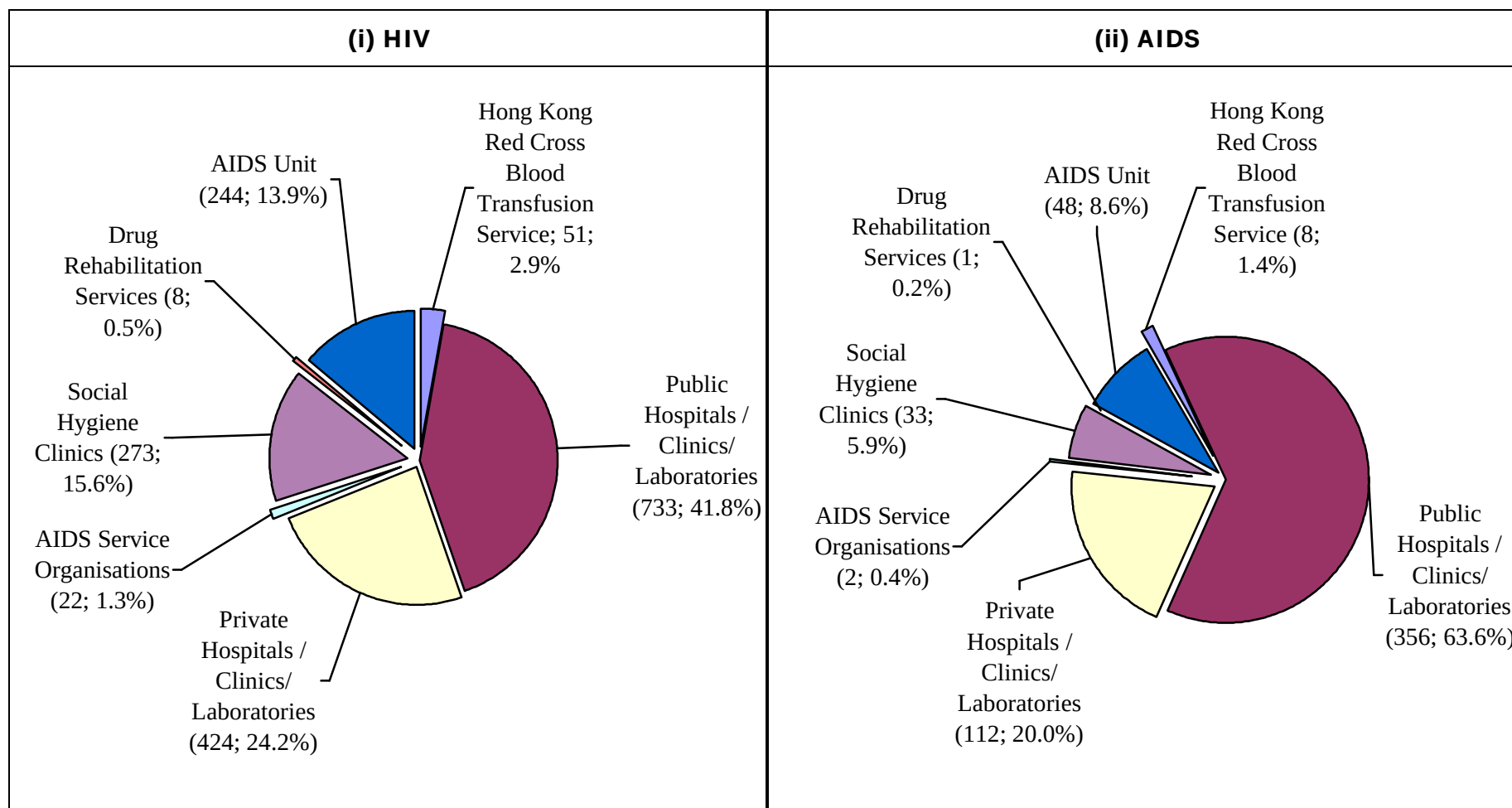


## Box 2.2 Source of reporting

### (a) For year 2001



**(b) Cumulative (1984 - 2001)**



### Box 2.3 Reported HIV/AIDS by ethnicity and gender

(a) For year 2001

| Ethnicity | HIV  |         |        |         |       |         | AIDS |         |        |         |       |         |
|-----------|------|---------|--------|---------|-------|---------|------|---------|--------|---------|-------|---------|
|           | Male |         | Female |         | Total |         | Male |         | Female |         | Total |         |
| Chinese   | 127  | (80.4%) | 22     | (40.0%) | 149   | (70.0%) | 44   | (91.7%) | 5      | (41.7%) | 49    | (81.7%) |
| Asian     | 17   | (10.8%) | 27     | (49.1%) | 44    | (20.7%) | 3    | (6.3%)  | 6      | (50.0%) | 9     | (15.0%) |
| White     | 9    | (5.7%)  | 0      | (0%)    | 9     | (4.2%)  | 1    | (2.1%)  | 0      | (0%)    | 1     | (1.7%)  |
| Black     | 2    | (1.3%)  | 0      | (0%)    | 2     | (0.9%)  | 0    | (0.0%)  | 0      | (0%)    | 0     | ((0%)   |
| Unknown   | 3    | (1.9%)  | 6      | (10.9%) | 9     | (4.2%)  | 0    | (0.0%)  | 1      | (8.3%)  | 1     | (1.7%)  |
| Total     | 158  | (100%)  | 55     | (100%)  | 213   | (100%)  | 48   | (100%)  | 12     | (100%)  | 60    | (100%)  |



**(b) Cumulative (1984 - 2001)**

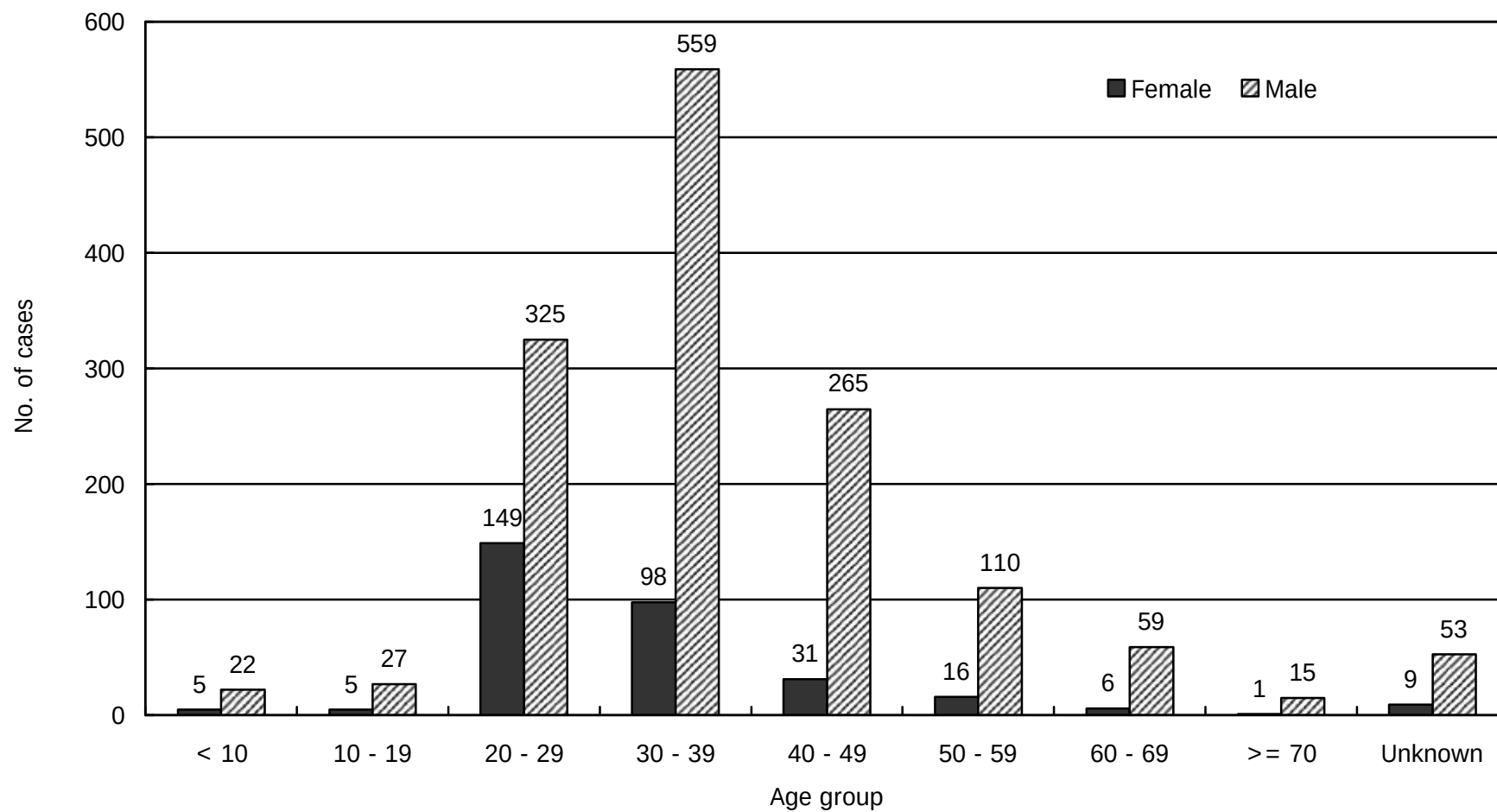
| Ethnicity | HIV  |         |        |         |       |         | AIDS |         |        |         |       |         |
|-----------|------|---------|--------|---------|-------|---------|------|---------|--------|---------|-------|---------|
|           | Male |         | Female |         | Total |         | Male |         | Female |         | Total |         |
| Chinese   | 1080 | (75.3%) | 134    | (41.9%) | 1214  | (69.2%) | 413  | (84.1%) | 23     | (33.3%) | 436   | (77.9%) |
| Asian     | 119  | (8.3%)  | 153    | (47.8%) | 272   | (15.5%) | 22   | (4.5%)  | 44     | (63.8%) | 66    | (11.8%) |
| White     | 177  | (12.3%) | 9      | (2.8%)  | 186   | (10.6%) | 54   | (11.0%) | 0      | (0.0%)  | 54    | (9.6%)  |
| Black     | 11   | (0.8%)  | 6      | (1.9%)  | 17    | (1.0%)  | 1    | (0.2%)  | 1      | (1.4%)  | 2     | (0.4%)  |
| Unknown   | 48   | (3.3%)  | 18     | (5.6%)  | 66    | (3.8%)  | 1    | (0.2%)  | 1      | (1.4%)  | 2     | (0.4%)  |
| Total     | 1435 | (100%)  | 320    | (100%)  | 1755  | (100%)  | 491  | (100%)  | 69     | (100%)  | 560   | (100%)  |

# **Box 2.4 Age distribution of reported HIV/AIDS**

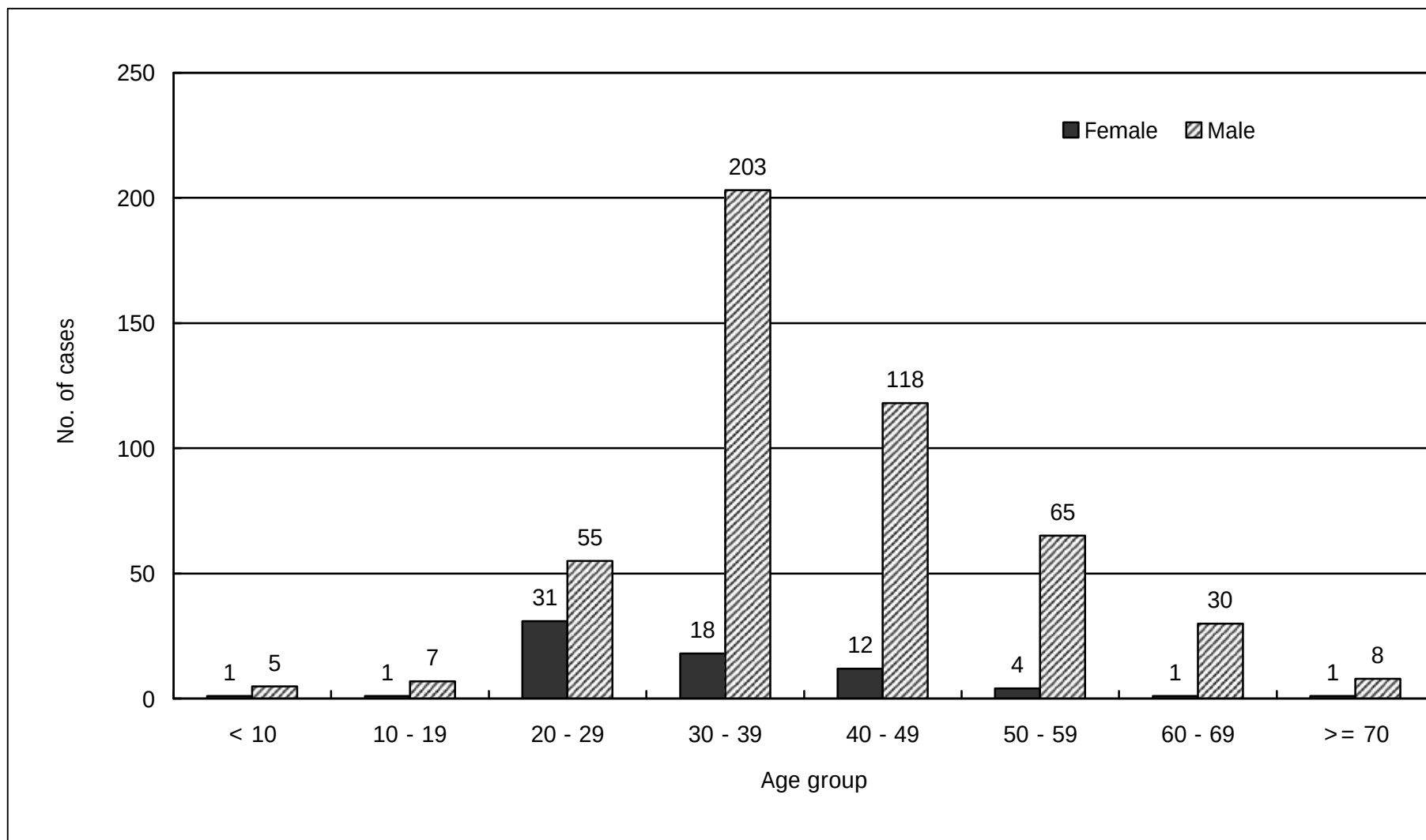
## **(a) Median age of reported HIV/AIDS**

| Year  | HIV        |                |      | AIDS       |                |      |
|-------|------------|----------------|------|------------|----------------|------|
|       | Median age | Inter quartile |      | Median age | Inter quartile |      |
|       |            | 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       | 35.3           | 51.3 |
| 1988  | 35         | 25.8           | 42.3 | 39         | 24             | 43   |
| 1989  | 36         | 28             | 46   | 38         | 31.5           | 46.5 |
| 1990  | 33         | 28             | 39   | 35         | 28.5           | 50.5 |
| 1991  | 31.5       | 26             | 39.8 | 34         | 27             | 44   |
| 1992  | 34         | 28             | 40   | 39         | 34.8           | 45.5 |
| 1993  | 33         | 27             | 39   | 38         | 29             | 41   |
| 1994  | 34         | 28             | 40   | 36         | 33             | 40.5 |
| 1995  | 32         | 26             | 40   | 36         | 30             | 44.5 |
| 1996  | 34         | 30             | 41.5 | 38         | 31.8           | 43   |
| 1997  | 35         | 28.5           | 42   | 37         | 32             | 48   |
| 1998  | 34         | 29             | 40   | 39         | 32             | 48   |
| 1999  | 35         | 29             | 43   | 40         | 34             | 51   |
| 2000  | 35         | 29             | 43   | 40         | 33             | 50   |
| 2001  | 35         | 29             | 42   | 38         | 30.3           | 46.8 |
| Total | 34         | 28             | 41   | 38         | 32             | 46   |

**(b) Age & gender of reported HIV infection (cumulative, 1984 - 2001)**



(c) Age & gender of reported AIDS (cumulative, 1985 - 2001)



**(d) Adults & children with reported HIV/AIDS in 2001**

| Age                 | HIV  |        |       | AIDS |        |       |
|---------------------|------|--------|-------|------|--------|-------|
|                     | Male | Female | Total | Male | Female | Total |
| Adult               | 156  | 55     | 211   | 47   | 12     | 59    |
| Children (age <=13) | 2    | 0      | 2     | 1    | 0      | 1     |
| Total               | 158  | 55     | 213   | 48   | 12     | 60    |

## Box 2.5 Exposure category of reported HIV/AIDS

### (a). Distribution of HIV infection cases by exposure category 1984 – 2001

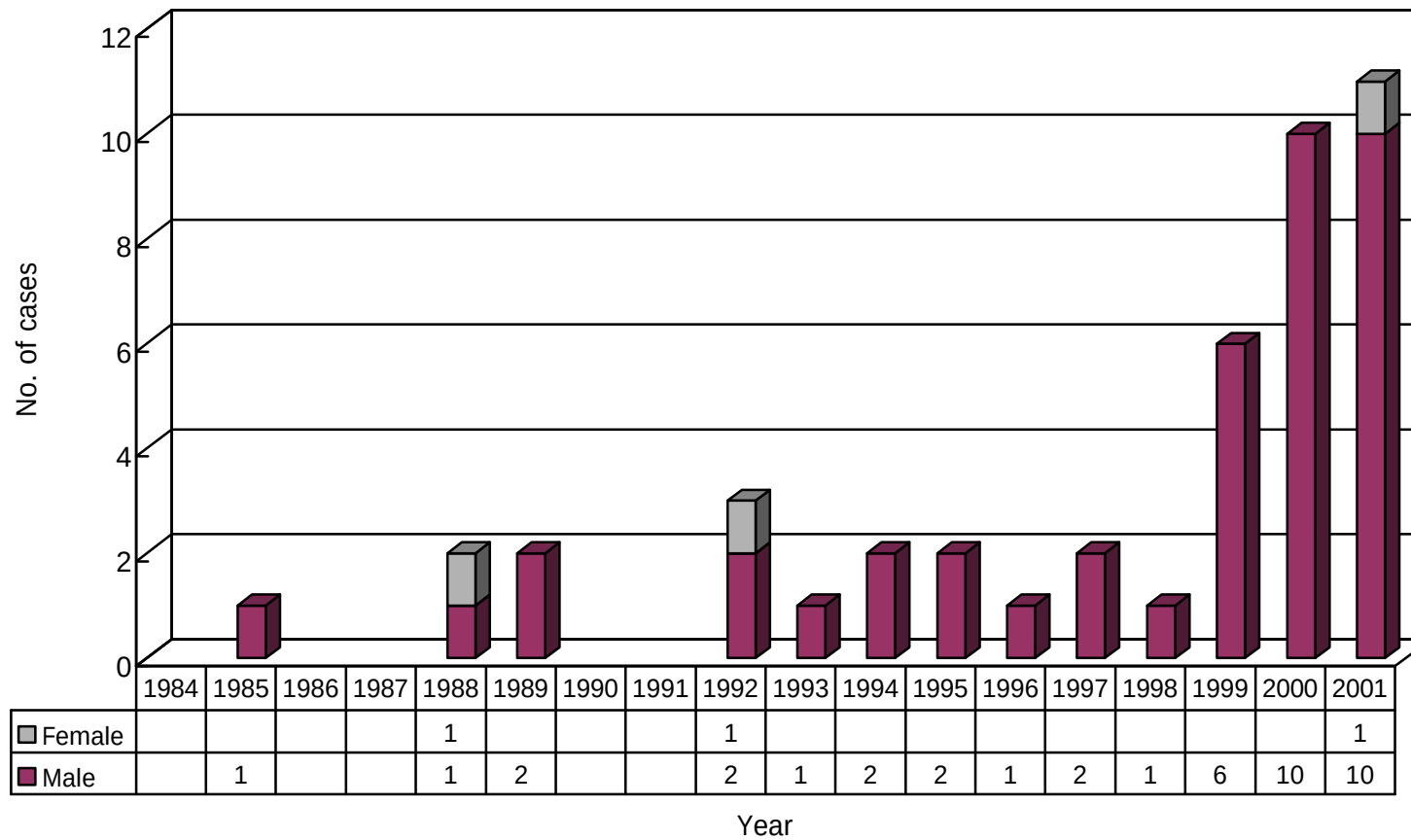
| Year<br>Exposure category | 1984 | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | Total           |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|
| Heterosexual              | 1    | 0    | 0    | 3    | 6    | 11   | 12   | 29   | 32   | 47   | 73   | 81   | 93   | 117  | 132  | 126  | 114  | 124  | 1001<br>(57.0%) |
| Homosexual                | 1    | 10   | 6    | 12   | 12   | 15   | 8    | 18   | 27   | 20   | 22   | 26   | 20   | 33   | 16   | 33   | 20   | 37   | 336<br>(19.1%)  |
| Bisexual                  | 0    | 1    | 2    | 7    | 2    | 6    | 5    | 8    | 2    | 2    | 4    | 4    | 3    | 10   | 6    | 10   | 6    | 6    | 84<br>(4.8%)    |
| Injecting drug use        | 0    | 1    | 0    | 0    | 2    | 2    | 0    | 0    | 3    | 1    | 2    | 2    | 1    | 2    | 1    | 6    | 10   | 11   | 44<br>(2.5%)    |
| Blood contact             | 5    | 32   | 10   | 7    | 2    | 2    | 5    | 0    | 1    | 1    | 1    | 0    | 0    | 1    | 0    | 1    | 0    | 0    | 68<br>(3.9%)    |
| Perinatal                 | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 2    | 1    | 0    | 2    | 4    | 2    | 2    | 14<br>(0.8%)    |
| Undetermined              | 0    | 2    | 2    | 4    | 4    | 2    | 4    | 5    | 6    | 8    | 1    | 7    | 16   | 18   | 32   | 33   | 31   | 33   | 208<br>(11.9%)  |
| Total                     | 7    | 46   | 20   | 33   | 28   | 38   | 34   | 60   | 71   | 79   | 104  | 122  | 134  | 181  | 189  | 213  | 183  | 213  | 1755<br>(100%)  |

**(b). Distribution of reported AIDS by exposure category 1985 – 2001**

| Year<br>Exposure category | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | Total          |
|---------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------|
| Heterosexual              | 1    | ---  | 1    | 0    | 3    | 3    | 2    | 5    | 10   | 16   | 31   | 55   | 44   | 50   | 44   | 56   | 48   | 369<br>(65.9%) |
| Homosexual                | 1    | ---  | 3    | 4    | 8    | 2    | 6    | 8    | 7    | 13   | 9    | 6    | 10   | 6    | 8    | 1    | 5    | 97<br>(17.3%)  |
| Bisexual                  | 1    | ---  | 0    | 1    | 3    | 3    | 2    | 1    | 1    | 4    | 3    | 1    | 3    | 1    | 1    | 1    | 2    | 28<br>(5.0%)   |
| Injecting drug use        | 0    | ---  | 0    | 0    | 1    | 0    | 0    | 0    | 1    | 0    | 1    | 1    | 1    | 0    | 1    | 2    | 1    | 9<br>(1.6%)    |
| Blood contact             | 0    | ---  | 0    | 1    | 2    | 3    | 3    | 0    | 0    | 3    | 0    | 2    | 1    | 1    | 2    | 1    | 0    | 19<br>(3.4%)   |
| Perinatal                 | 0    | ---  | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 1    | 1    | 0    | 0    | 1    | 1    | 1    | 1    | 6<br>(1.1%)    |
| Undetermined              | 0    | ---  | 2    | 1    | 0    | 2    | 1    | 0    | 0    | 0    | 0    | 5    | 5    | 4    | 4    | 5    | 3    | 32<br>(5.7%)   |
| Total                     | 3    | ---  | 6    | 7    | 17   | 13   | 14   | 14   | 19   | 37   | 45   | 70   | 64   | 63   | 61   | 67   | 60   | 560<br>(100%)  |

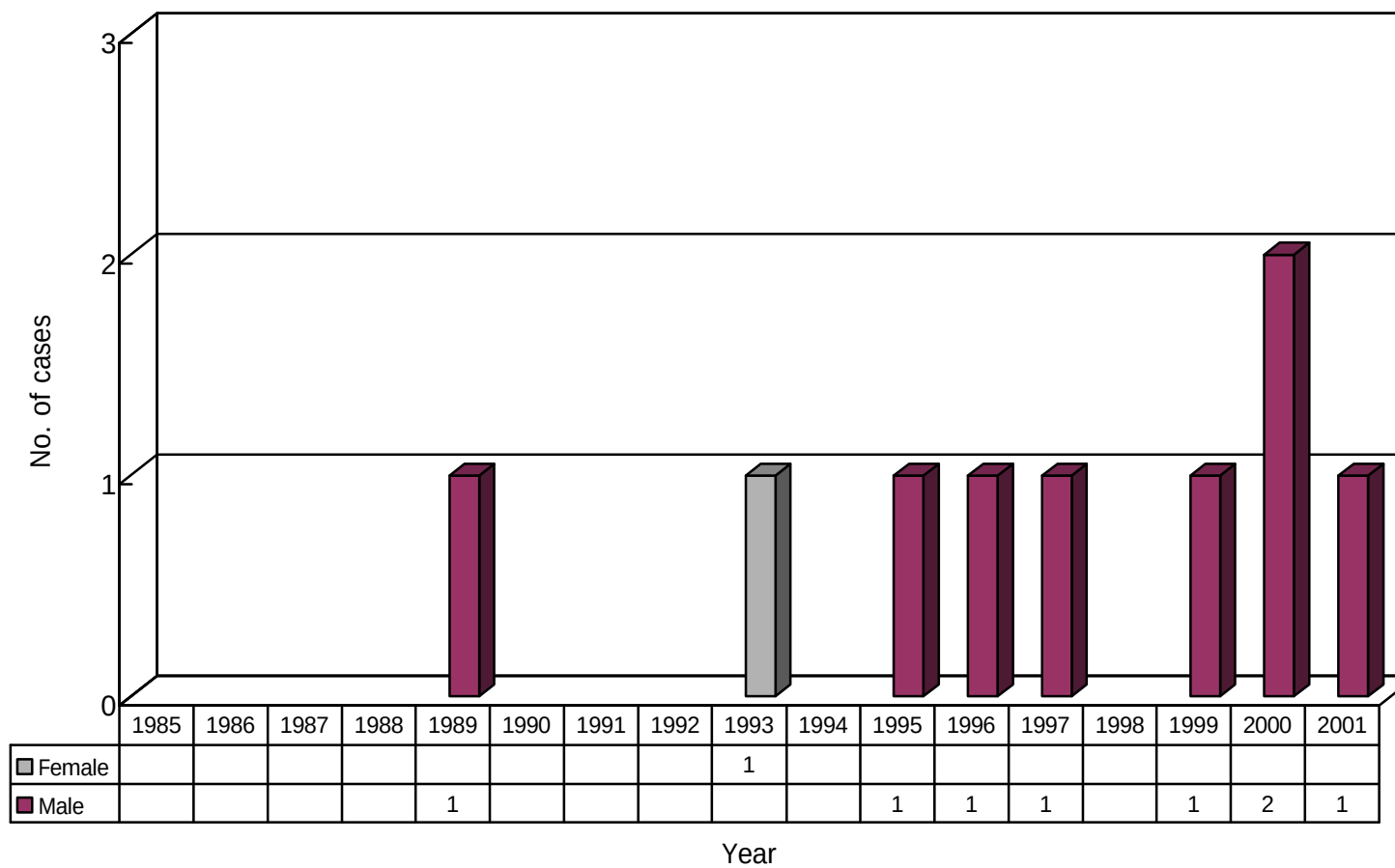
## Box 2.6 Reported HIV/AIDS in drug users

### (a) Reported HIV infected drug users – by gender



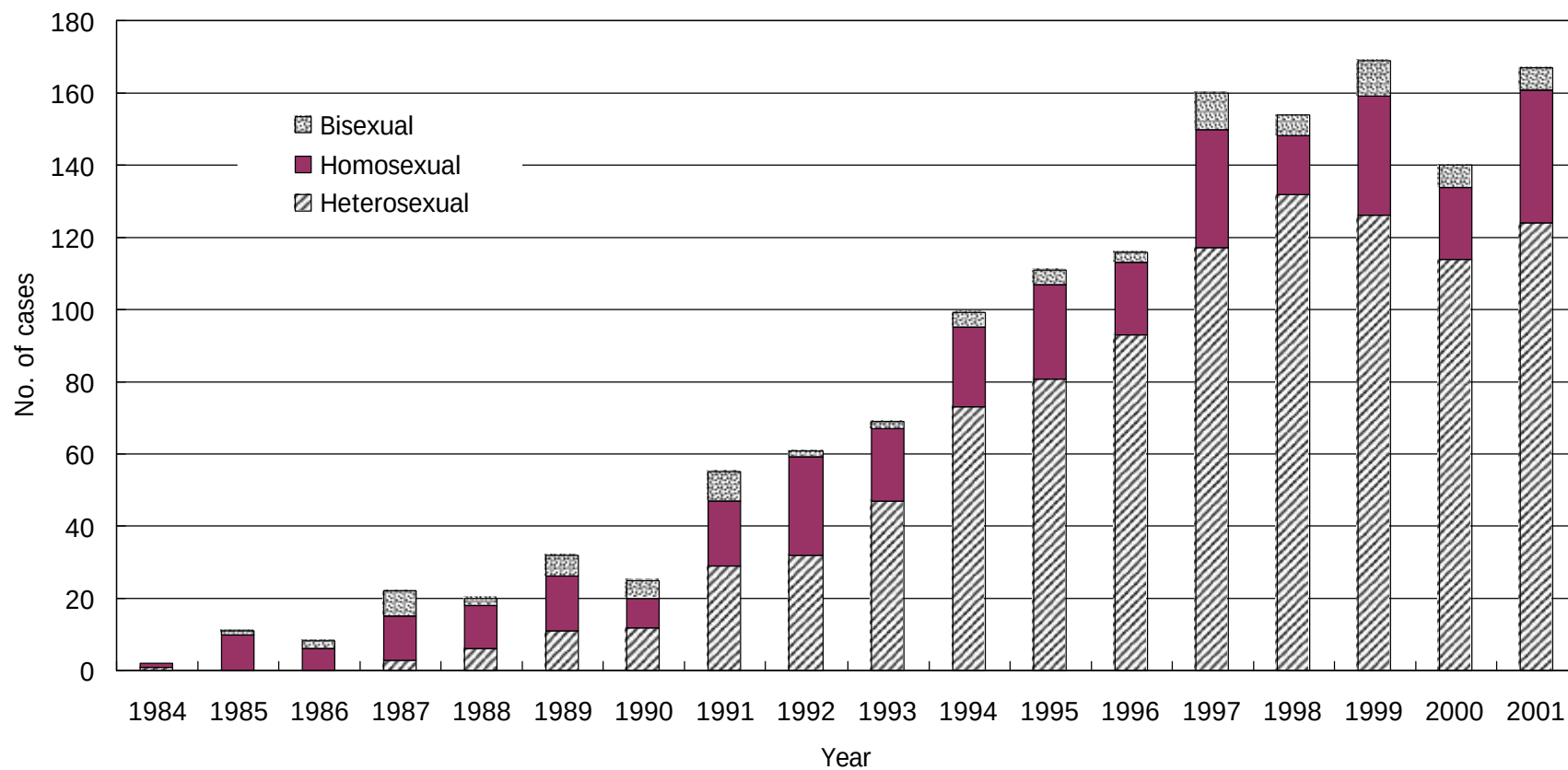


**(b) Reported AIDS in drug users – by gender**

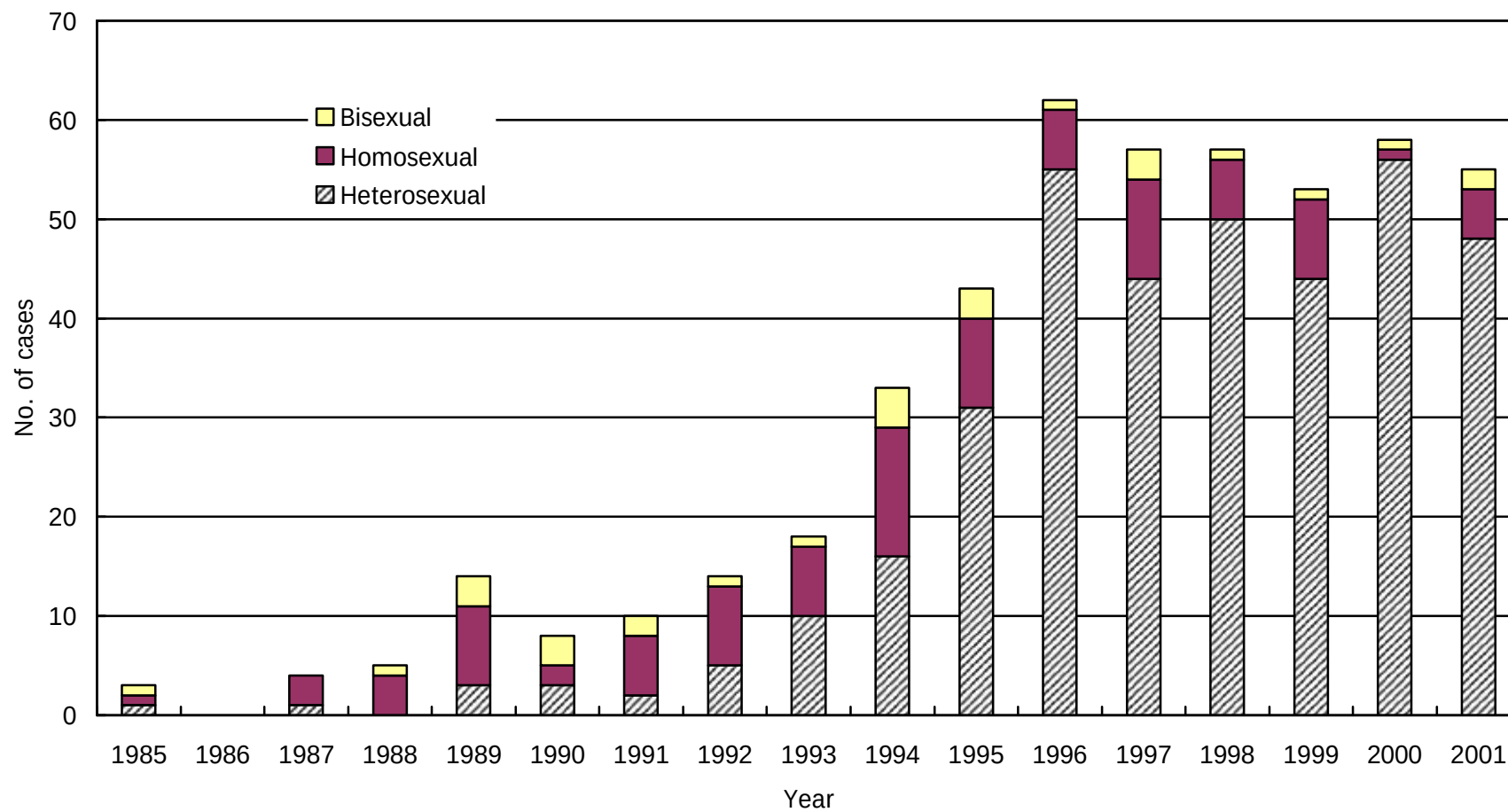


## Box 2.7 Distribution of sexual acquired HIV infection

### (a) Yearly report of sexually acquired HIV



**(b) Yearly report of sexually acquired AIDS**



**(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  | 4.1 : 1 | 5.9 : 1  |
| 1999  | 2.0 : 1 | 4.2 : 1  |
| 2000  | 3.0 : 1 | 23.5 : 1 |
| 2001  | 1.9 : 1 | 5.1 : 1  |
| Total | 1.7 : 1 | 2.4 : 1  |

**Box 2.8 Age-specific rate of sexually acquired HIV infection.**

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

| Age group \ Year | Age-specific rate (per 100,000 population) |      |       |      |       |
|------------------|--------------------------------------------|------|-------|------|-------|
|                  | 1997                                       | 1998 | 1999  | 2000 | 2001  |
| 0 - 4            | ---                                        | ---  | ---   | ---  | ---   |
| 5 - 9            | ---                                        | ---  | ---   | ---  | ---   |
| 10 - 14          | ---                                        | ---  | ---   | ---  | ---   |
| 15 - 19          | 0.43                                       | ---  | 0.42  | 0.42 | 0.44  |
| 20 - 24          | 3.82                                       | 1.73 | 2.64  | 2.67 | 2.22  |
| 25 - 29          | 8.94                                       | 7.34 | 6.98  | 3.71 | 7.06  |
| 30 - 34          | 9.00                                       | 9.83 | 11.80 | 8.36 | 11.31 |
| 35 - 39          | 6.24                                       | 8.96 | 5.44  | 7.43 | 8.95  |
| 40 - 44          | 6.59                                       | 3.62 | 6.01  | 5.81 | 4.47  |
| 45 - 49          | 4.10                                       | 2.40 | 3.52  | 2.69 | 4.07  |
| 50 - 54          | 3.15                                       | 1.72 | 6.38  | 2.38 | 2.64  |
| 55 - 59          | 3.65                                       | 3.77 | 5.26  | 2.27 | 2.21  |
| 60 - 64          | 3.54                                       | 3.60 | 2.20  | 2.95 | 2.99  |
| 65 - 69          | 0.82                                       | 1.58 | 0.77  | 1.55 | 1.56  |
| 70 - 74          | ---                                        | ---  | 3.22  | 1.02 | 1.95  |
| >= 75            | ---                                        | 1.01 | 0.97  | ---  | ---   |
| Total            | 3.93                                       | 3.48 | 3.95  | 3.14 | 3.77  |

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

| Age group \ Year | Age-specific rate (per 100,000 population) |      |      |      |      |
|------------------|--------------------------------------------|------|------|------|------|
|                  | 1997                                       | 1998 | 1999 | 2000 | 2001 |
| 0 - 4            | ---                                        | ---  | ---  | ---  | ---  |
| 5 - 9            | ---                                        | ---  | ---  | ---  | ---  |
| 10 - 14          | ---                                        | ---  | ---  | ---  | ---  |
| 15 - 19          | ---                                        | ---  | ---  | ---  | ---  |
| 20 - 24          | 1.25                                       | 2.91 | 3.30 | 1.65 | 3.31 |
| 25 - 29          | 4.85                                       | 5.52 | 3.83 | 3.10 | 4.22 |
| 30 - 34          | 0.88                                       | 2.43 | 2.16 | 2.79 | 2.44 |
| 35 - 39          | 1.17                                       | 1.13 | 2.21 | 1.09 | 1.88 |
| 40 - 44          | 0.70                                       | 0.67 | 0.63 | 0.30 | 0.87 |
| 45 - 49          | 1.78                                       | 0.42 | 0.41 | 1.97 | 0.74 |
| 50 - 54          | 1.49                                       | 0.66 | 0.59 | 1.57 | ---  |
| 55 - 59          | ---                                        | ---  | ---  | 0.91 | 0.86 |
| 60 - 64          | 0.78                                       | 0.80 | 0.81 | ---  | 0.85 |
| 65 - 69          | ---                                        | ---  | ---  | ---  | 0.82 |
| 70 - 74          | ---                                        | ---  | ---  | 0.96 | ---  |
| >= 75            | ---                                        | ---  | ---  | ---  | ---  |
| Total            | 1.01                                       | 1.24 | 1.20 | 1.09 | 1.25 |

**Box 2.9 Profile of AIDS defining Illnesses for 1985 to 2001**

| ADI \ Year                                      | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | Total          |
|-------------------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------|
| <i>Pneumocystis Carinii</i><br><i>Pneumonia</i> | 1    | ---  | 2    | 4    | 8    | 5    | 4    | 7    | 10   | 12   | 17   | 21   | 20   | 26   | 23   | 30   | 26   | 216<br>(38.6%) |
| <i>Mycobacteria</i><br><i>Tuberculosis</i>      | ---  | ---  | ---  | ---  | 1    | 2    | 3    | 1    | 2    | 4    | 8    | 21   | 17   | 18   | 13   | 19   | 17   | 126<br>(22.5%) |
| Other fungal<br>infections                      | ---  | ---  | 3    | ---  | 3    | ---  | 2    | 2    | 1    | 4    | 7    | 6    | 10   | 8    | 5    | 4    | 5    | 60<br>(10.7%)  |
| Penicilliosis                                   | ---  | ---  | ---  | ---  | ---  | 1    | 1    | ---  | 1    | 6    | 7    | 7    | 5    | 2    | 7    | 5    | 1    | 43<br>(7.7%)   |
| Cytomegalovirus<br>diseases                     | 1    | ---  | ---  | ---  | ---  | 1    | 1    | 1    | 2    | 1    | 3    | 4    | 4    | 3    | 2    | 3    | 2    | 28<br>(5.0%)   |
| Kaposi's<br>sarcoma                             | 1    | ---  | ---  | 1    | 2    | 1    | ---  | 2    | ---  | 4    | 1    | 2    | 3    | ---  | ---  | ---  | ---  | 17<br>(3.0%)   |
| Non-TB<br>mycobacterial<br>infections           | ---  | ---  | ---  | ---  | 1    | ---  | 3    | ---  | 1    | ---  | ---  | 2    | 1    | ---  | 5    | 1    | 5    | 19<br>(3.4%)   |
| Others                                          | ---  | ---  | 1    | 2    | 2    | 3    | ---  | 1    | 2    | 6    | 2    | 7    | 4    | 6    | 6    | 5    | 4    | 51<br>(9.1%)   |
| Total                                           | 3    | ---  | 6    | 7    | 17   | 13   | 14   | 14   | 19   | 37   | 45   | 70   | 64   | 63   | 61   | 67   | 60   | 560<br>(100%)  |

### **3. TABULATED RESULTS OF SEROSURVEILLANCE STUDIES**

#### **System description**

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



# System layout

|                                                     | Setting                                                | System                                                | Since           | Sample size            | Data available in 2001 |
|-----------------------------------------------------|--------------------------------------------------------|-------------------------------------------------------|-----------------|------------------------|------------------------|
| <b>(a) community with predisposing risk factors</b> |                                                        |                                                       |                 |                        |                        |
| STD patients                                        | Social Hygiene Clinics                                 | Voluntary testing offered to clients                  | 1985            | 30000 – 40000 / year   | Yes                    |
| Drug users (1)                                      | Methadone Clinics                                      | Unlinked anonymous screening using urine samples      | 1992            | 2000 – 4000 / year     | Yes                    |
| Drug users (2)                                      | All rehabilitation services                            | Voluntary testing                                     | 1985            | 300 – 1000 / year      | Yes                    |
| Drug users (3)                                      | Street addicts approached by outreach workers          | Voluntary testing on unlinked saliva samples          | 1993 ( to 1997) | 200 – 500 / year       | No                     |
| <b>(b) Community without risk factors</b>           |                                                        |                                                       |                 |                        |                        |
| Blood donors                                        | Hong Kong Red Cross Blood Transfusion Service, HKRCBTS | A requirement for all potential donors                | 1985            | 150000 – 200000 / year | Yes                    |
| Neonates                                            | Testing of Cord blood                                  | 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                     |
| TB patients (1)                                     | TB and Chest Clinics of the Department of Health       | Unlinked anonymous screening                          | 1990            | 1000 / year            | Yes                    |
| TB patients (2)                                     | TB and Chest Clinics of the Department of Health       | Voluntary testing                                     | 1993            | 2000 – 3500 / year     | Yes                    |
| Prisoners                                           | Penal institutions                                     | Unlinked anonymous screening on blood / urine samples | 1992            | 1000 – 2000 / year     | Yes                    |

## Tables & Figures

| Number  | Title                                                                                                                                                                                                                                                                                                                                   |
|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Box 3.1 | <p>HIV prevalence in blood donors</p> <p>(a) HIV detection rate of donated blood units at HKRCBTS (1985 – 2001)</p> <p>(b) HIV seroprevalence among new and repeat blood donors attending HKRCBTS (1991 – 2001)</p>                                                                                                                     |
| Box 3.2 | HIV seroprevalence in clients attending Social Hygiene Clinics, from voluntary blood testing (1985 – 2001)                                                                                                                                                                                                                              |
| Box 3.3 | <p>HIV prevalence in drug users of methadone clinic</p> <p>(a) HIV prevalence among methadone clinics clients from unlinked anonymous screening (1992 – 2001)</p> <p>(b) HIV prevalence among methadone clinic attendees from voluntary testing (1991 – 2001)</p>                                                                       |
| Box 3.4 | HIV prevalence among drug users attending inpatient drug treatment centres / institutions, from unlinked anonymous screening (1998 – 2001)                                                                                                                                                                                              |
| Box 3.5 | HIV seroprevalence among newly admitted prisoners from unlinked anonymous screening (1995 – 2001)                                                                                                                                                                                                                                       |
| Box 3.6 | <p>HIV seroprevalence in TB patient</p> <p>(a) HIV seroprevalence among patients attending government TB &amp; Chest Clinics, from unlinked anonymous screening of urine samples (1990 – 2001)</p> <p>(b) HIV seroprevalence among patients attending government TB &amp; Chest Clinics, from voluntary blood testing (1993 – 2001)</p> |

**Box 3.1 HIV prevalence in blood donors****(a). HIV detection rate of donated blood units at HKRCBTS (1985 – 2001)**

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

**(b). HIV seroprevalence among new and repeat blood donors attending HKRCBTS (1991-2001)**

| Year | New donors    |                         |                                                     | Repeat donors |                         |                                                     |
|------|---------------|-------------------------|-----------------------------------------------------|---------------|-------------------------|-----------------------------------------------------|
|      | No. of donors | No. of donors anti-HIV+ | HIV positivity rate of donors (%)<br>(95% C.I. (%)) | No. of donors | No. of donors anti-HIV+ | HIV positivity rate of donors (%)<br>(95% C.I. (%)) |
| 1991 | 48,769        | 0                       | 0<br>(----)                                         | 132,987       | 3                       | 0.002<br>( 0.0005 - 0.0066 )                        |
| 1992 | 43,674        | 1                       | 0.002<br>( 0.00006 - 0.0128 )                       | 132,818       | 8                       | 0.006<br>( 0.0026 - 0.0119 )                        |
| 1993 | 36,146        | 1                       | 0.003<br>( 0.00007 - 0.0154 )                       | 128,907       | 2                       | 0.002<br>( 0.0002 - 0.0056 )                        |
| 1994 | 38,077        | 2                       | 0.005<br>( 0.0006 - 0.0190 )                        | 134,074       | 5                       | 0.004<br>( 0.0012 - 0.0087 )                        |
| 1995 | 39,778        | 2                       | 0.005<br>( 0.0006 - 0.0182 )                        | 93,280        | 2                       | 0.002<br>( 0.0003 - 0.0077 )                        |
| 1996 | 40,875        | 1                       | 0.002<br>( 0.0001 - 0.0136 )                        | 99,294        | 4                       | 0.004<br>( 0.0011 - 0.0103 )                        |
| 1997 | 40,419        | 1                       | 0.002<br>( 0.0001 - 0.0138 )                        | 81,906        | 6                       | 0.007<br>( 0.0027 - 0.0159 )                        |
| 1998 | 43,756        | 3                       | 0.007<br>( 0.0014 - 0.0200 )                        | 92,511        | 4                       | 0.004<br>( 0.0012 - 0.0111 )                        |
| 1999 | 40,960        | 1                       | 0.002<br>(0.00006 - 0.0136 )                        | 76,098        | 6                       | 0.008<br>( 0.0029 - 0.0172 )                        |
| 2000 | 41,116        | 5                       | 0.012<br>( 0.0039 - 0.0284 )                        | 148,366       | 4                       | 0.003<br>( 0.0007 - 0.0069 )                        |
| 2001 | 43,415        | 0                       | 0<br>(---)                                          | 150,420       | 3                       | 0.002<br>( 0.0004 - 0.0058 )                        |

**Box 3.2 HIV seroprevalence in clients attending Social Hygiene Clinics, from voluntary blood testing (1985 - 2001)**

| Year | No. of blood samples | No. of 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 )           |

### Box 3.3 HIV prevalence in drug users of methadone clinic

#### (a). HIV prevalence among methadone clinic clients from unlinked anonymous screening (1992 - 2001)

| Year | No. of urine samples | No. of 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 )           |

**(b). HIV prevalence among methadone clinic attendees from voluntary testing (1991 - 2001)**

| Year | *No. of blood samples | No. of 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              | ( --- - --- )               |

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

**Box 3.4 HIV prevalence among drug users attending inpatient drug treatment centres / institutions, from unlinked anonymous screening (1998 - 2001)**

| Year | No. of urine samples | No. of 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 )           |



**Box 3.5 HIV seroprevalence among newly admitted prisoners from unlinked anonymous screening (1995 - 2001)**

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

### Box 3.6 HIV seroprevalence in TB patient

(a). HIV seroprevalence among patients attending government TB & Chest Clinics, from unlinked anonymous screening of urine samples (1990 - 2001)

| Year | No. of urine samples | No. of 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 )          |

**(b). HIV seroprevalence among patients attending government TB & Chest Clinics, from voluntary blood testing (1993 - 2001)**

| Year | No. of blood samples | No. of anti-HIV+ | Prevalence (%) | 95% C.I. for prevalence (%) |
|------|----------------------|------------------|----------------|-----------------------------|
| 1993 | 2,116                | 0                | 0              | ( --- - --- )               |
| 1994 | 2,534                | 2                | 0.079          | ( 0.010 - 0.285 )           |
| 1995 | 2,548                | 2                | 0.078          | ( 0.010 - 0.284 )           |
| 1996 | 3,157                | 2                | 0.063          | ( 0.008 - 0.229 )           |
| 1997 | 3,524                | 2                | 0.057          | ( 0.007 - 0.205 )           |
| 1998 | 3,726                | 6                | 0.161          | ( 0.059 - 0.350 )           |
| 1999 | 3,633                | 11               | 0.303          | ( 0.151 - 0.542 )           |
| 2000 | 3,426                | 3                | 0.088          | ( 0.018 - 0.256 )           |
| 2001 | 3,404                | 9                | 0.264          | ( 0.121 - 0.502 )           |

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

**System description:**

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

## **Tables & Figures**

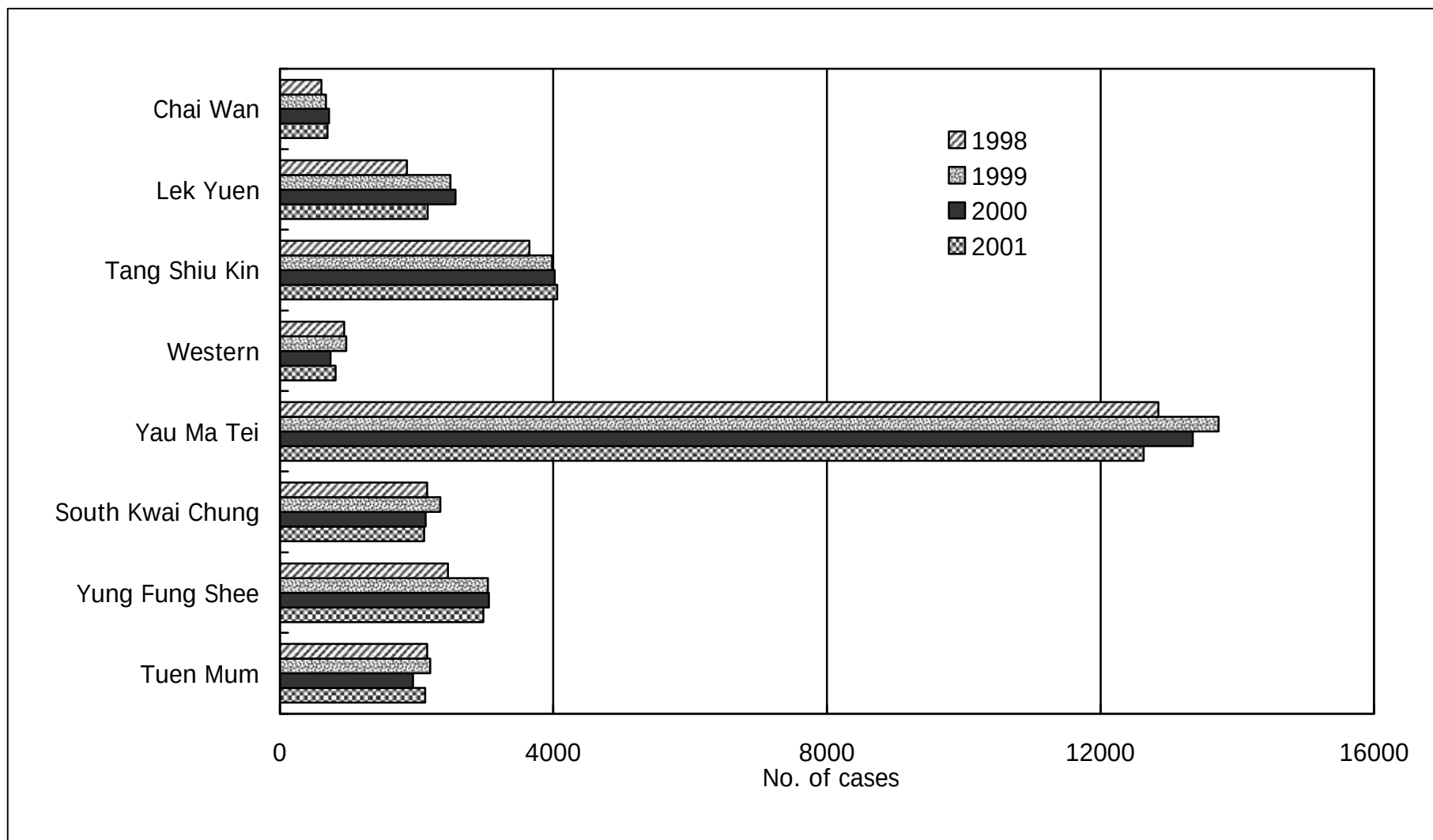
| <b>Number</b> | <b>Title</b>                                                                            |
|---------------|-----------------------------------------------------------------------------------------|
| Box 4.1       | Total number of STI reported by clinic<br>(a) in 2001<br>(b) from 1998 – 2001           |
| Box 4.2       | Annual reported STIs in Social Hygiene Clinics, Hong Kong Special Administrative Region |
| Box 4.3       | Syphilis reported by Social Hygiene Clinics from 1997 to 2001                           |
| Box 4.4       | Sexually acquired HIV infection in Hong Kong                                            |
| Box 4.5       | Syndrome Presentations of STI from Behavioural Survey on Social Hygiene Service         |

**Box 4.1 Total number of STI reported by clinic**

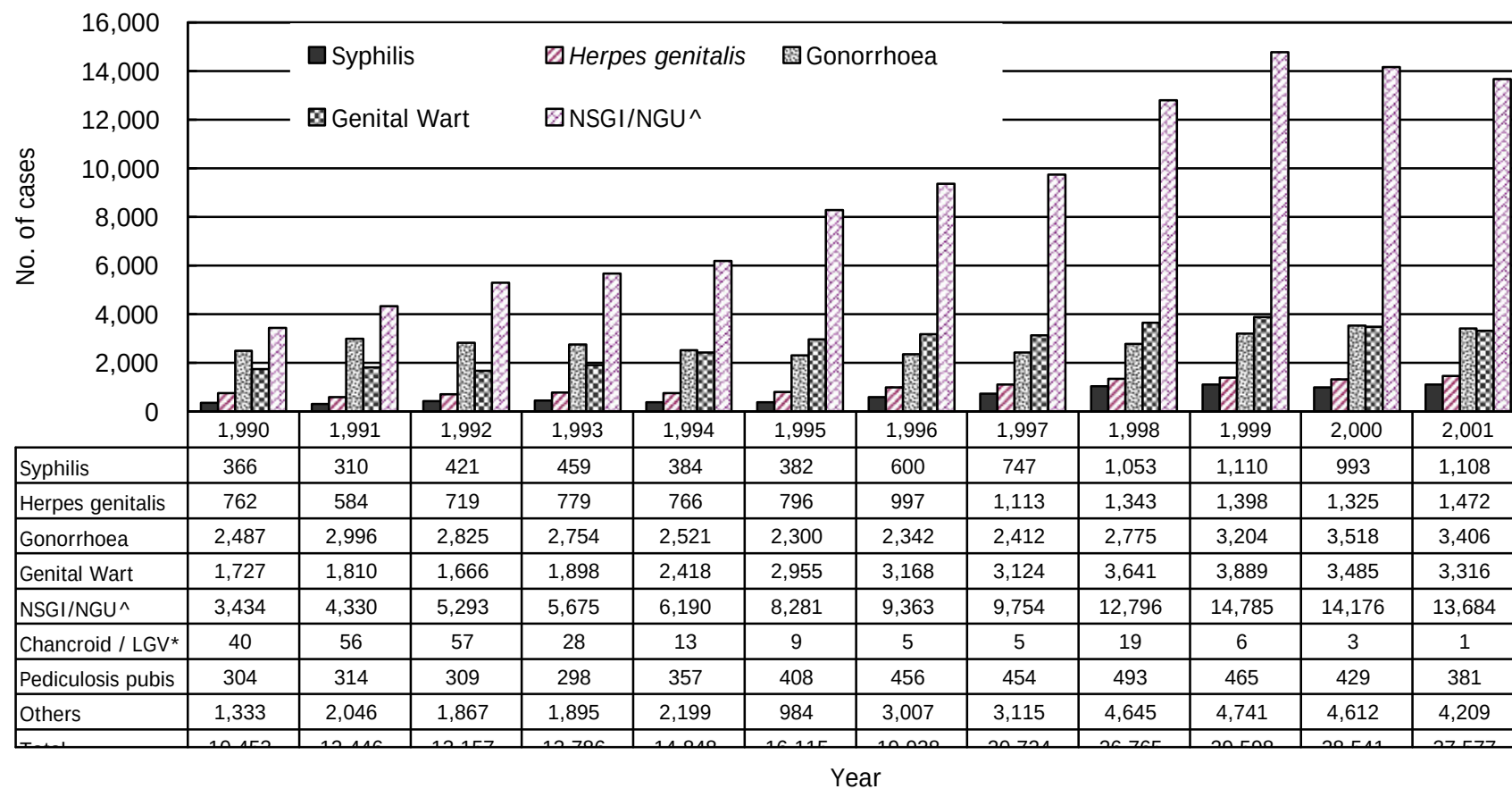
**(a). in 2001**

|        | Chai Wan | Western | Tang Shiu Kin | Yau Ma Tei | Yung Fung Shee | South Kwai Chung | Lek Yuen | Tuen Mun |
|--------|----------|---------|---------------|------------|----------------|------------------|----------|----------|
| Male   | 391      | 553     | 2,206         | 6,872      | 1,736          | 1,382            | 1,162    | 1,029    |
| Female | 310      | 264     | 1,848         | 5,757      | 1,243          | 731              | 998      | 1,095    |
| Total  | 701      | 817     | 4,054         | 12,629     | 2,979          | 2,113            | 2,160    | 2,124    |

**(b). from 1998 – 2001**



**Box 4.2 Annual reported STIs in Social Hygiene Clinics, Hong Kong Special Administrative Region**



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

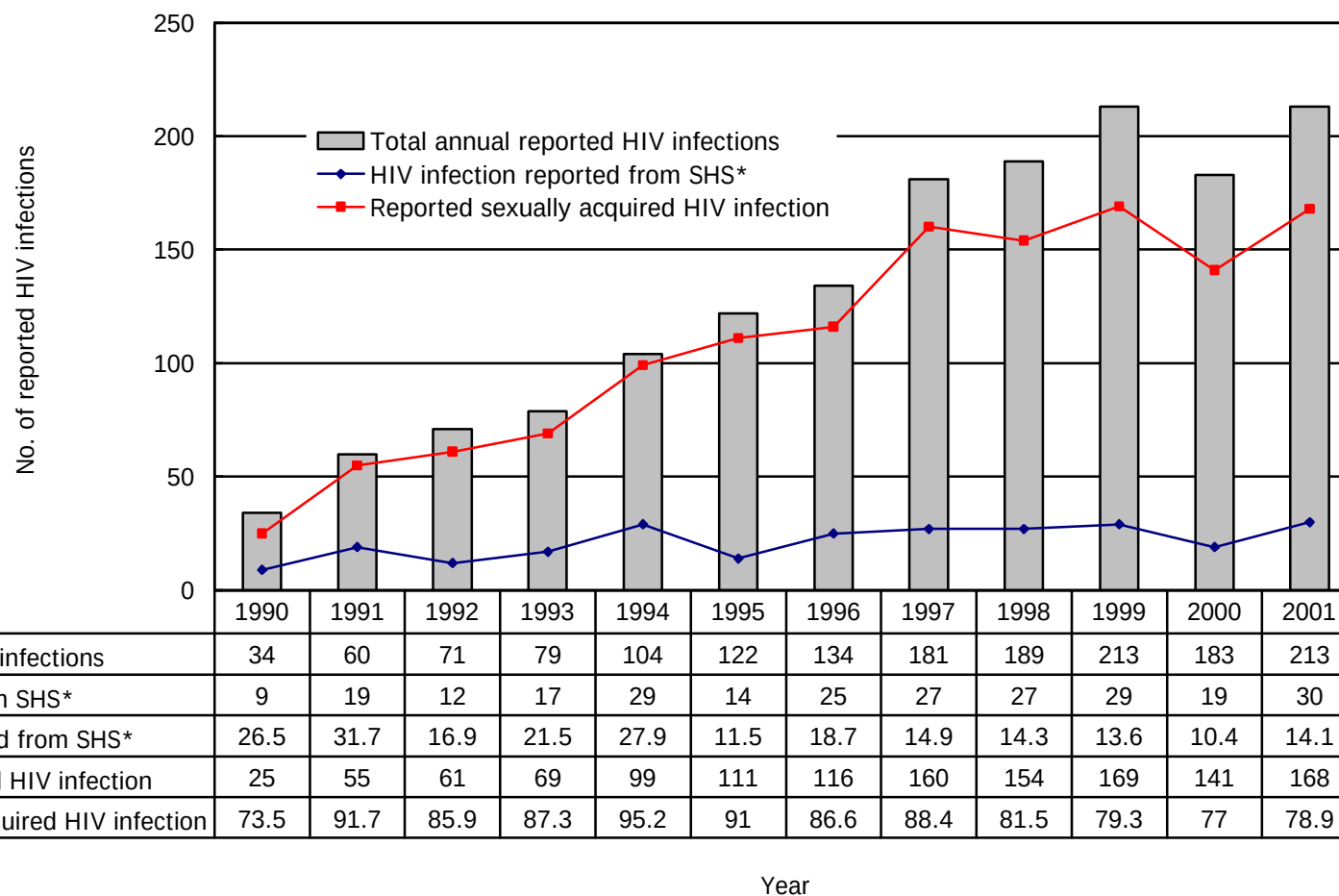
\* LGV : *Lymphogranuloma venereum*



**Box 4.3 Syphilis reported by Social Hygiene Clinics from 1997 to 2001**

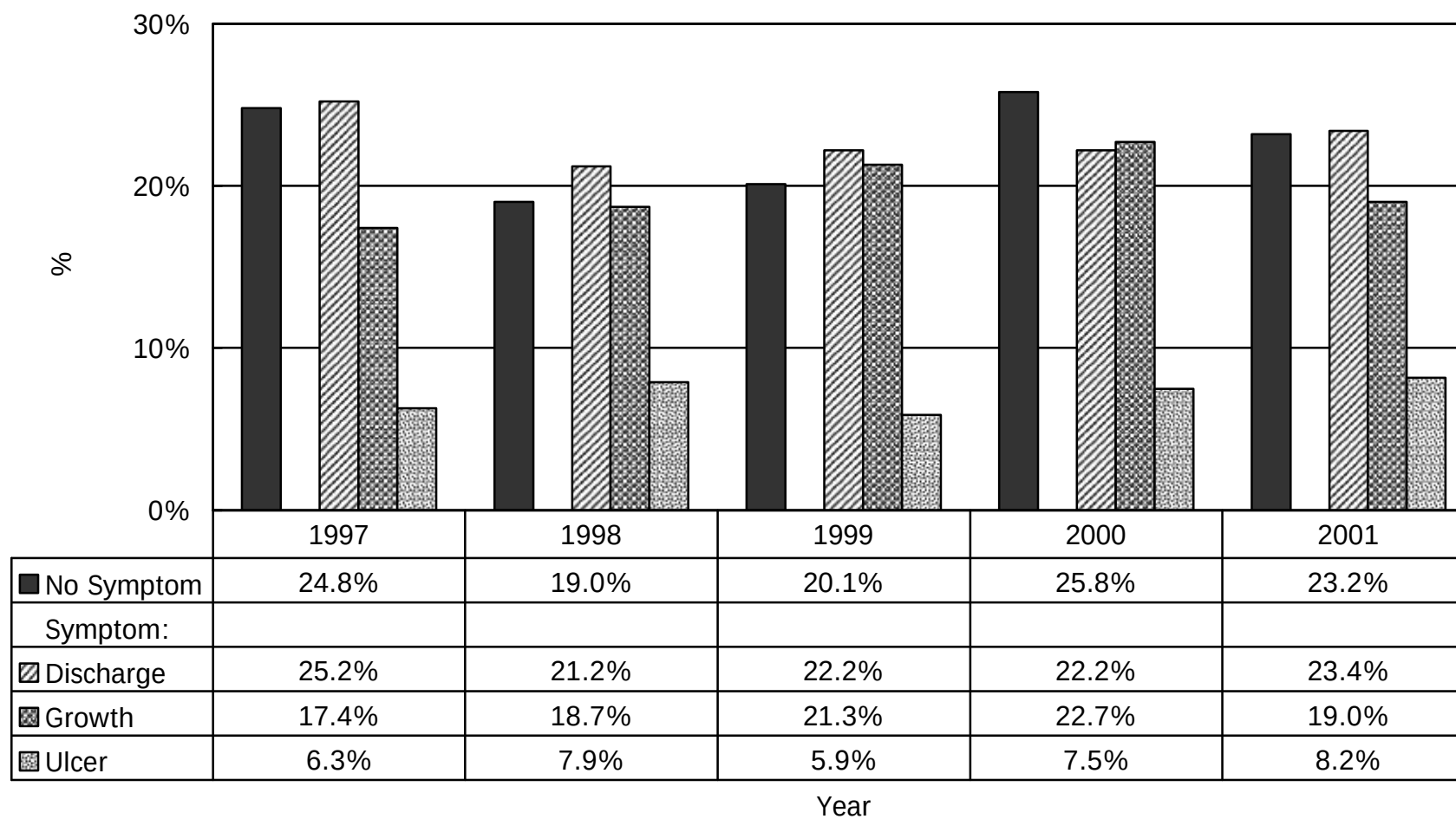
| Syphilis \ Year               | 1997 | 1998  | 1999  | 2000 | 2001  |
|-------------------------------|------|-------|-------|------|-------|
| Primary                       | 228  | 293   | 289   | 271  | 221   |
| Secondary                     | 66   | 69    | 75    | 87   | 60    |
| Early latent                  | 186  | 314   | 321   | 278  | 295   |
| Late latent                   | 249  | 372   | 419   | 354  | 528   |
| Late (cardiovascular / neuro) | 15   | 4     | 1     | 0    | 3     |
| Congenital (early)            | 1    | 1     | 0     | 0    | 0     |
| Congenital (late)             | 2    | 0     | 5     | 3    | 1     |
| Total                         | 747  | 1,053 | 1,110 | 993  | 1,108 |

#### Box 4.4 Sexually acquired HIV infection in Hong Kong



\* SHS : Social Hygiene Service

**Box 4.5 Syndrome Presentations of STI from Behavioural Survey on Social Hygiene Service**



## **5. TABULATED RESULTS ON BEHAVIOURAL MONITORING**

### **System description**

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

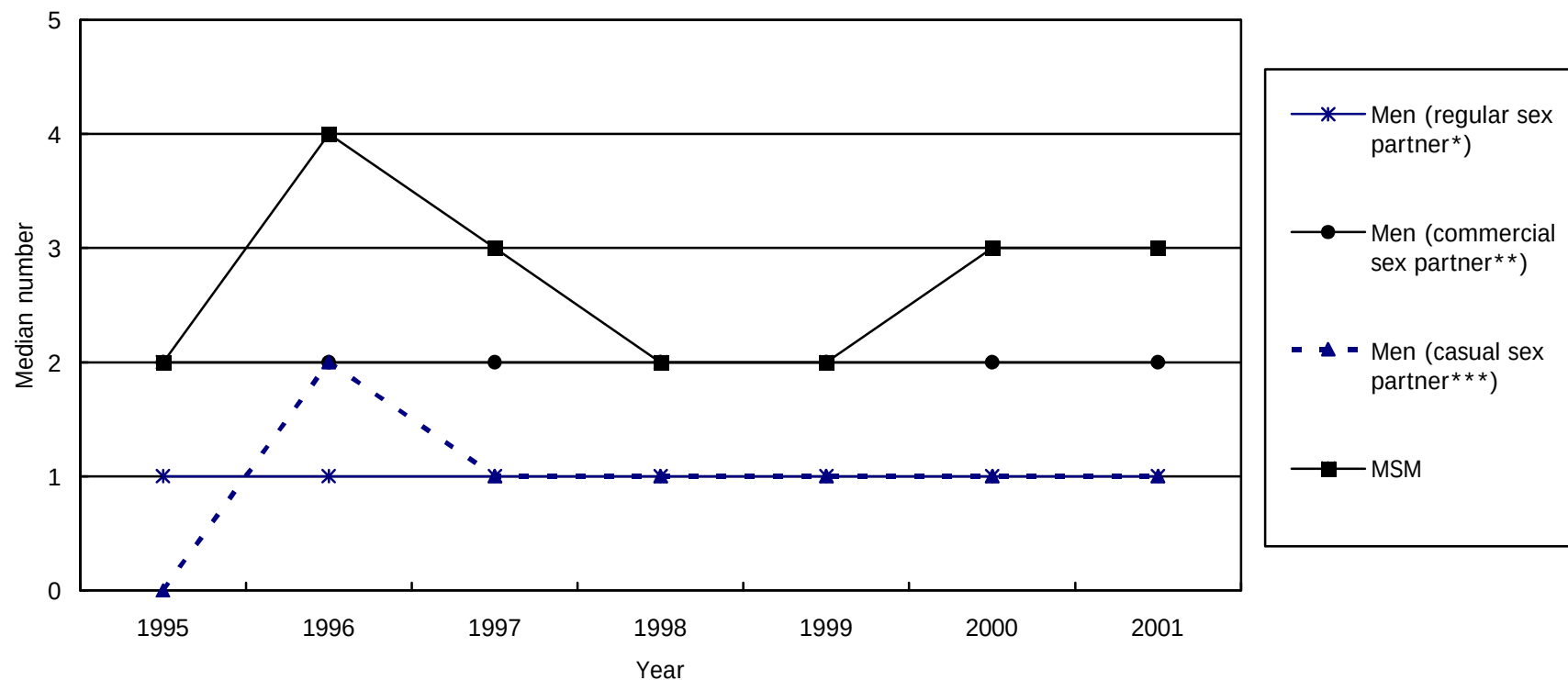
### System layout

| <b>Source</b>                                                                                 | <b>Sexual behaviour</b>                                                                                                                                                                                                      | <b>Drug-taking behaviour</b>                                                                                                                       | <b>Data available in 2001</b> |
|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| AIDS Counselling Service (ACS)                                                                | <ul style="list-style-type: none"> <li>- Median no. of sexual partners among men</li> <li>- Recent history of commercial sex</li> <li>- Condom use in men</li> <li>- No. of sexual partners and Condom use in MSM</li> </ul> |                                                                                                                                                    | Yes                           |
| Social Hygiene (STD) Clinics                                                                  | <ul style="list-style-type: none"> <li>- Recent history of commercial sex</li> <li>- Condom use in heterosexual men</li> </ul>                                                                                               |                                                                                                                                                    | Yes                           |
| Methadone clinics (DRS-M)                                                                     |                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>- Proportion of injectors</li> <li>- Practice of needle-sharing</li> </ul>                                  | Yes                           |
| Shek Kwu Chau (SKC) Treatment and Rehabilitation Centre (DRS-S)                               |                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>- Proportion of injectors</li> <li>- Practice of needle-sharing</li> </ul>                                  | Yes                           |
| Central Registry of Drug Abuse (CRDA)                                                         |                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>- Proportion of injectors in all drug users</li> <li>- Proportion of injectors in new drug users</li> </ul> | Yes                           |
| Street Addict Survey (SAS) (From SARDA)                                                       |                                                                                                                                                                                                                              | <ul style="list-style-type: none"> <li>- Proportion of injectors</li> <li>- Practice of needle-sharing</li> </ul>                                  | No                            |
| Community Research Programme on AIDS (CRPA-H and –T H: Household; T: Travellers) (From CCTER) | <ul style="list-style-type: none"> <li>- Condom use in heterosexual men</li> </ul>                                                                                                                                           |                                                                                                                                                    | Yes                           |

## Tables & Figures

| Number  | Title                                                                                           |
|---------|-------------------------------------------------------------------------------------------------|
| Box 5.1 | Median number of sex partners in the previous year among men attending AIDS Counselling Service |
| Box 5.2 | Recent history of commercial sex                                                                |
| Box 5.3 | Regular condom use among men attending AIDS Counselling Service                                 |
| Box 5.4 | Condom use for last sex among men attending AIDS Counselling Service                            |
| Box 5.5 | Regular condom use in heterosexual men                                                          |
| Box 5.6 | Condom use among Men have Sex with Men (MSMs) attending AIDS counselling Service                |
| Box 5.7 | Proportion of Injection drug users (the “injectors”)                                            |
| Box 5.8 | Proportion of needle-sharers                                                                    |
| Box 5.9 | Age and Duration of drug use                                                                    |
|         | (a) Mean duration of drug use                                                                   |
|         | (b) Mean age of drug users                                                                      |
|         | (c) Mean age of initiating drug use                                                             |

**Box 5.1 Median number of sex partners in the previous year among men attending AIDS Counselling Service**

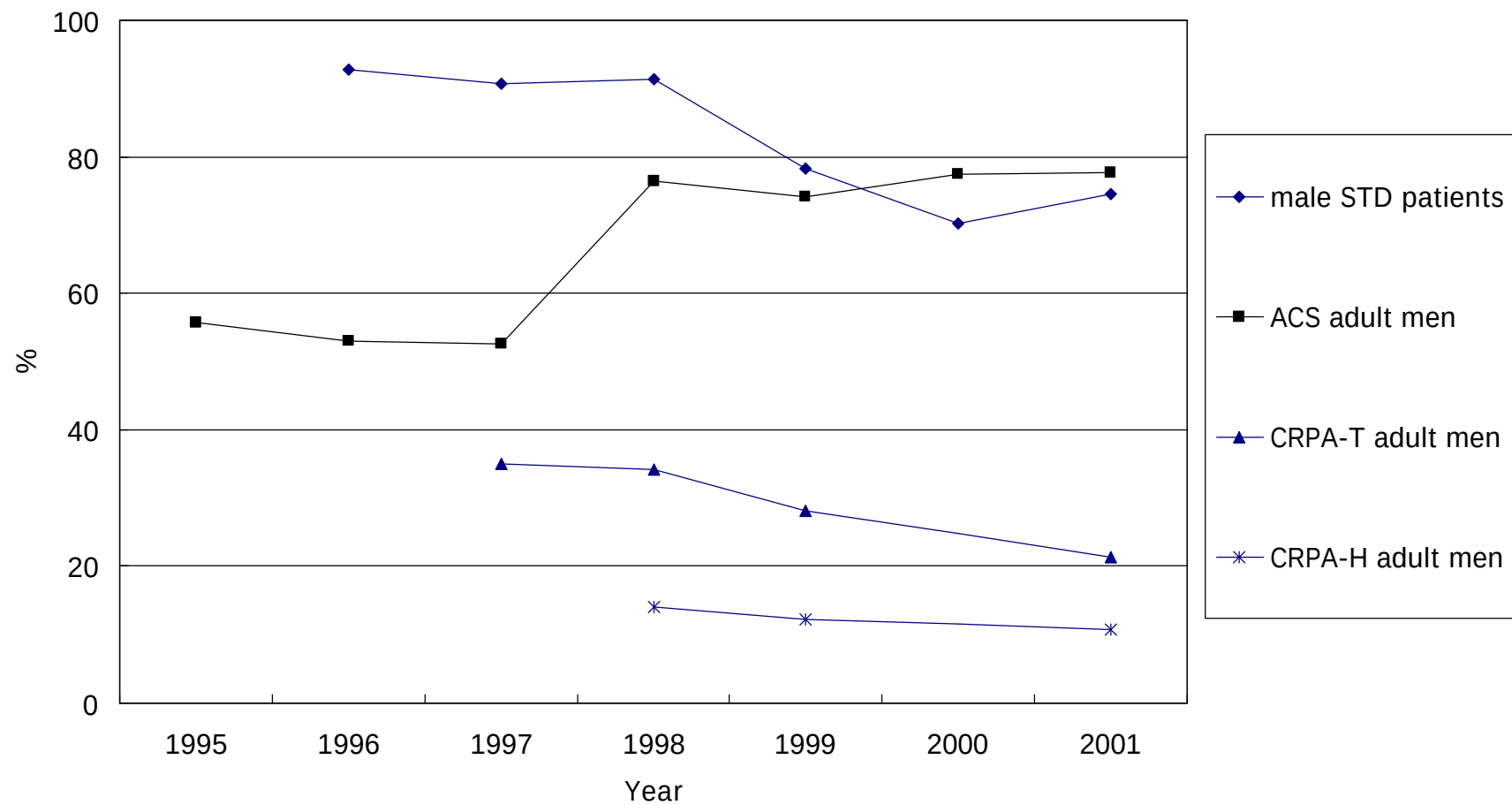


\* Regular sex partner refers to the spouse or other long-term sex partner for at least one year, or if less than one year, one with whom you expect to continue sexual relationship. This include: spouse, mistress, and steady boy/girl friends.

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

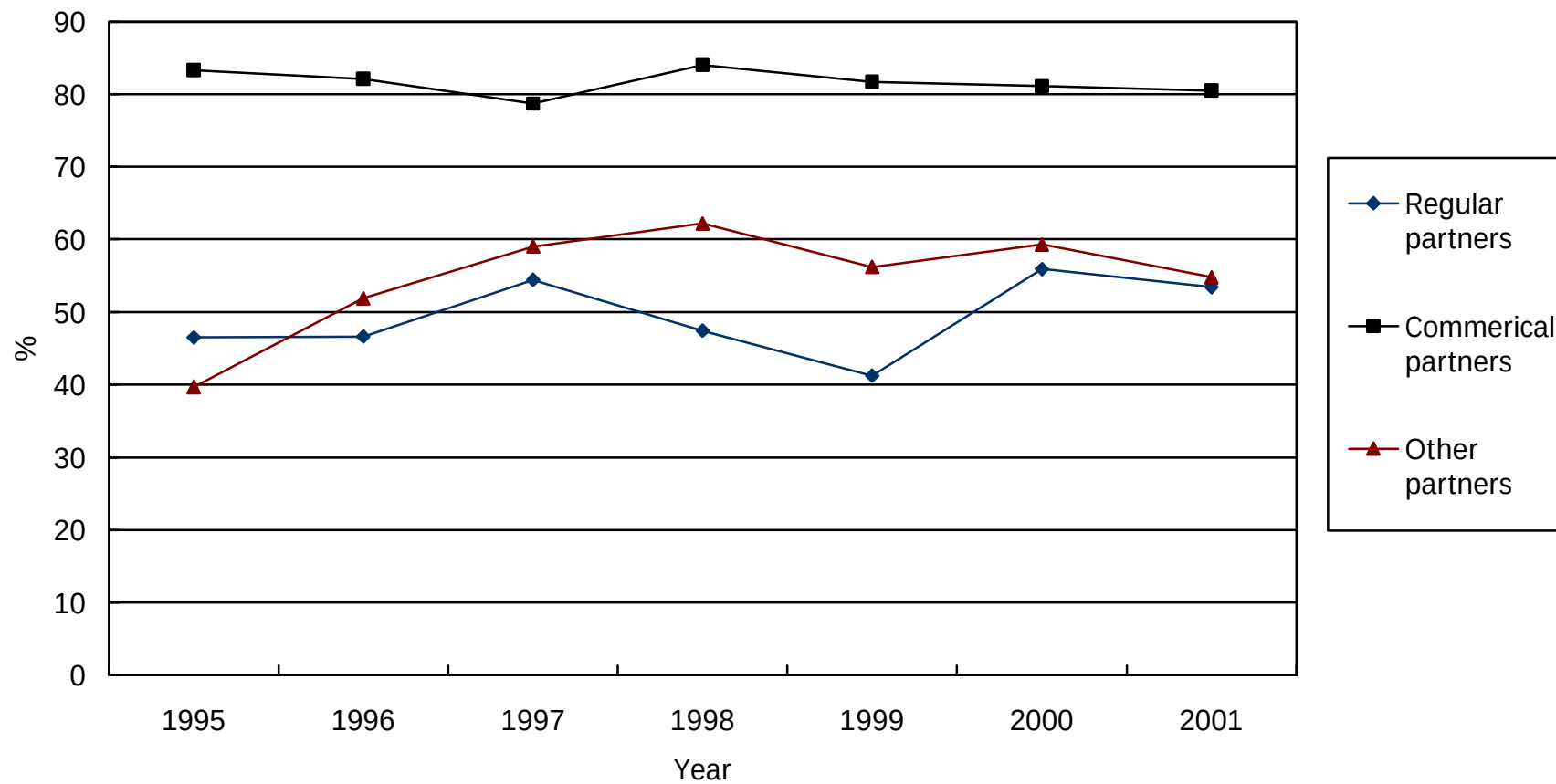
\*\*\* Casual sex partner, the two do not have steady relationship.

### Box 5.2 Recent history of commercial sex



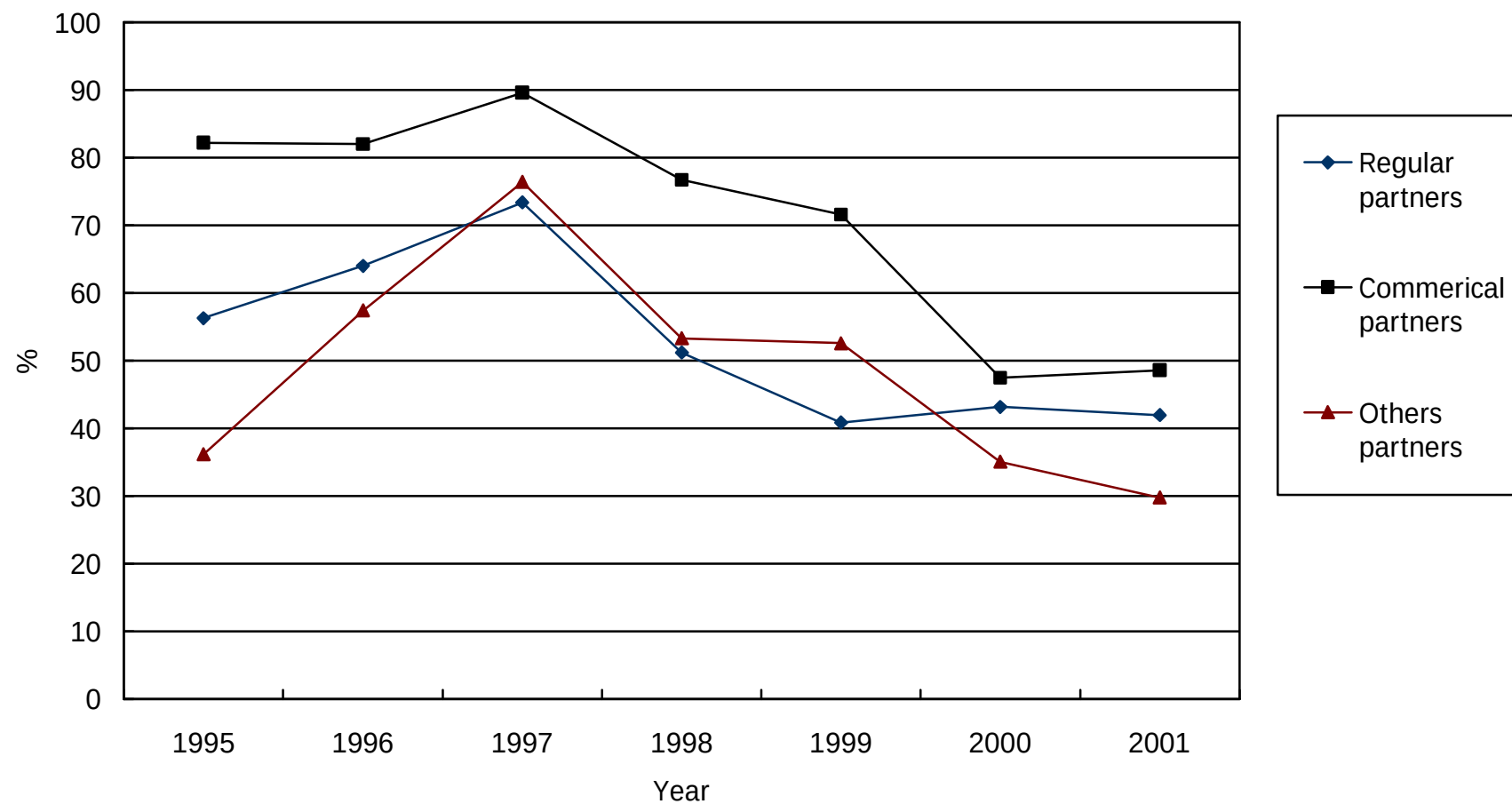


**Box 5.3 Regular condom use\* among men attending AIDS Counselling Service**

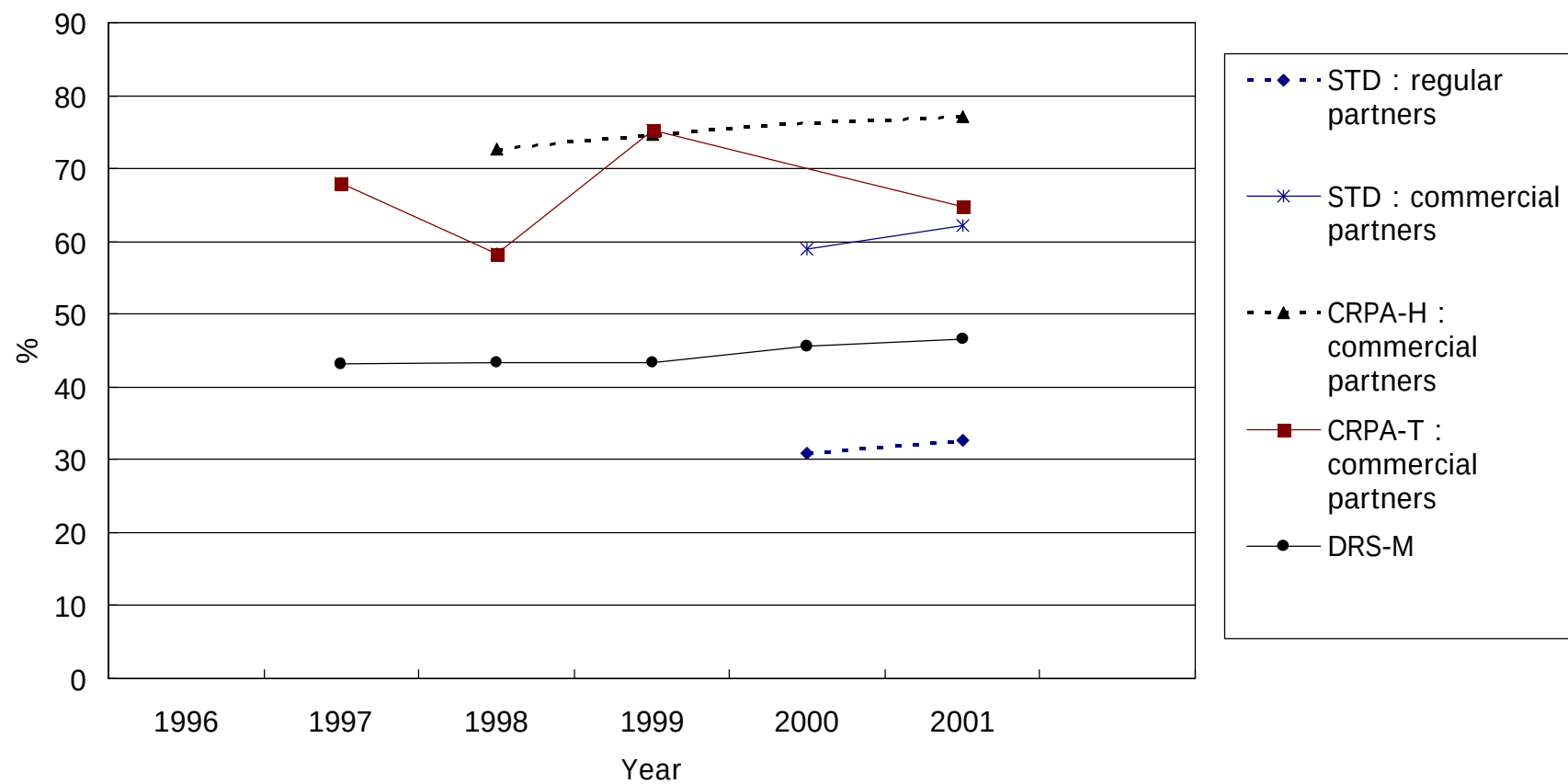


\* Regular condom use is defined as always or usually using a condom on a 4-level

**Box 5.4 Condom use for last sex among men attending AIDS Counselling Service**

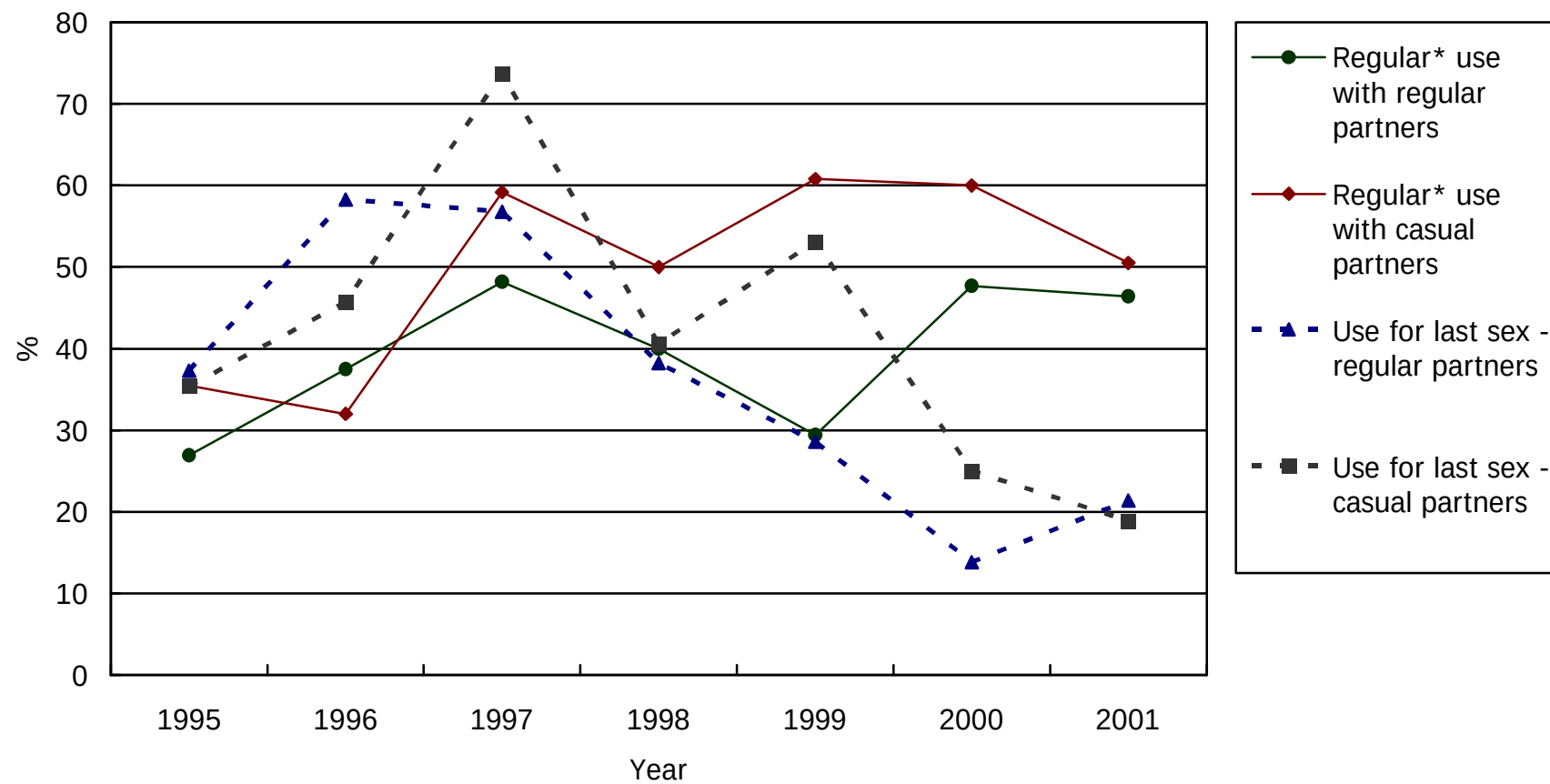


### Box 5.5 Regular\* condom use in heterosexual men



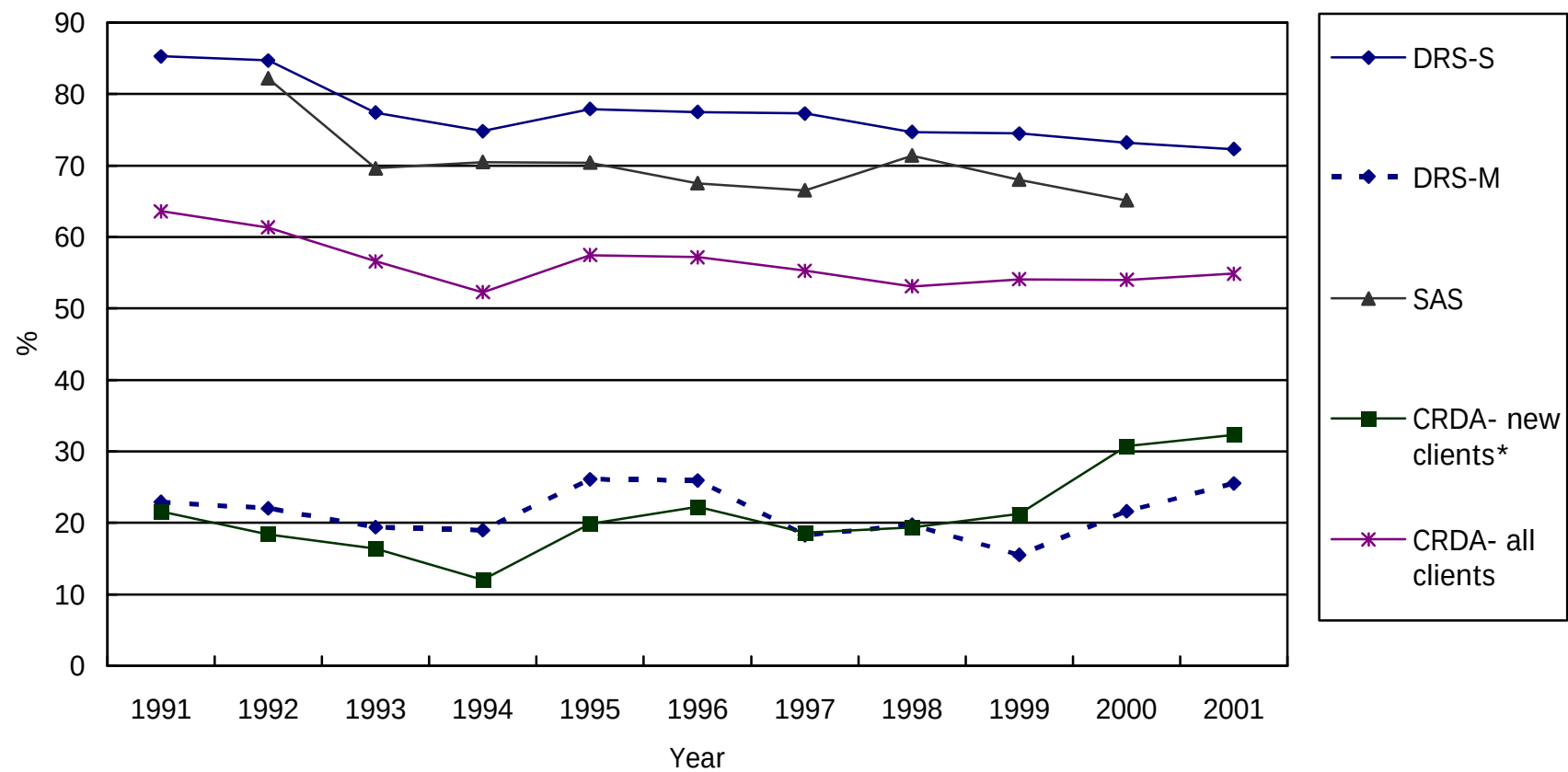
\* Regular condom use is defined as always or usually using a condom on a 4-level

**Box 5.6 Condom use among MSMs attending AIDS counselling Service**



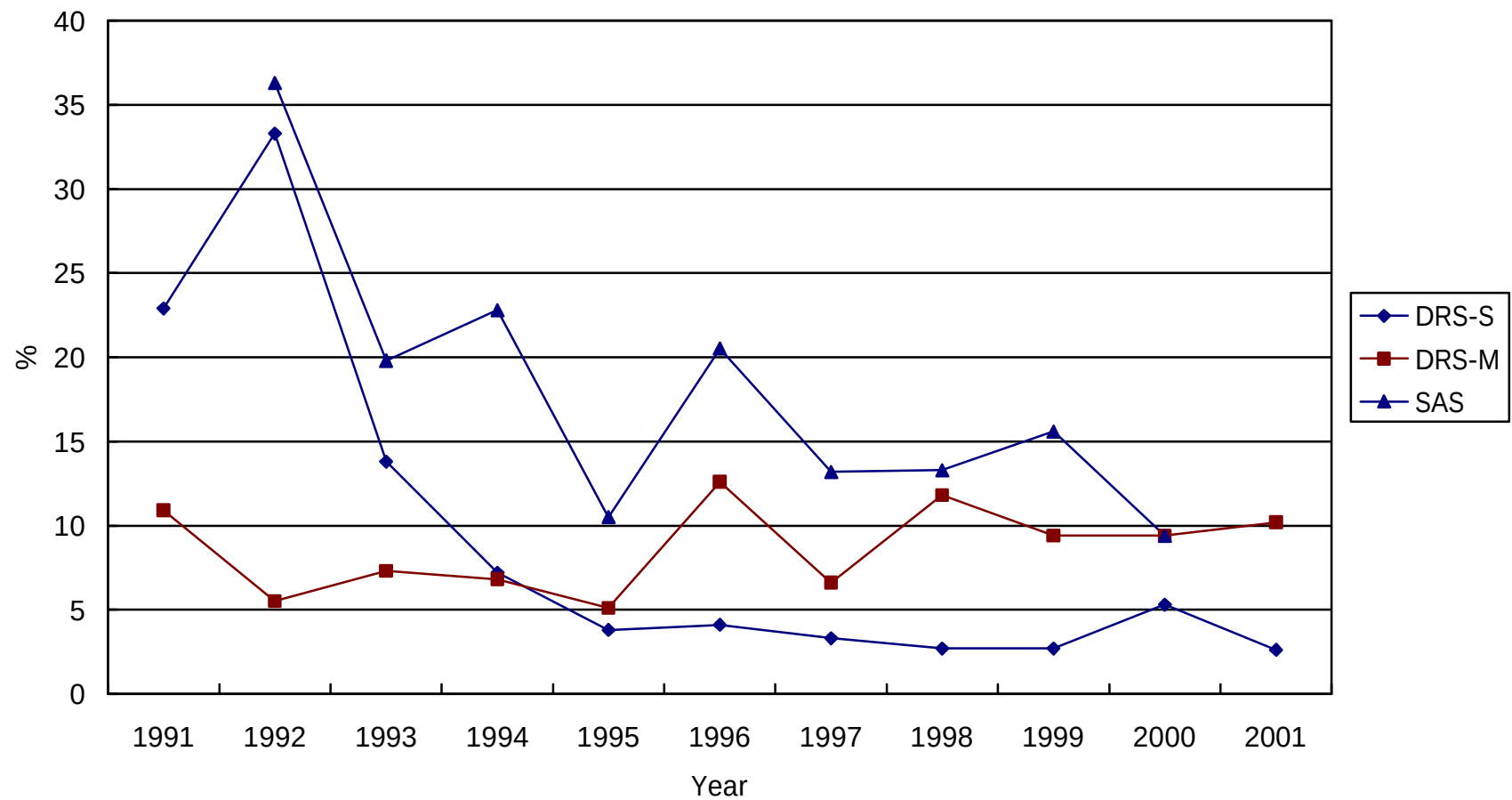
\* Regular condom use is defined as always or usually using a condom on a 4-level

**Box 5.7 Proportion of injectors**



\* Newly clients refers to a person who is 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.

Box 5.8 Proportion of needle-sharers



**Box 5.9. Age and duration of drug use**

**(a). Mean duration of drug use**

|            | Year |      |      |      |      |      |      |      |      |      |      |
|------------|------|------|------|------|------|------|------|------|------|------|------|
|            | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| SKC        | 14.7 | 14.1 | 13.7 | 13.4 | 14.0 | 15.6 | 17.8 | 18.3 | 19.2 | 19.9 | 20.1 |
| CRDA (new) | 4.1  | 3.2  | 3.4  | 3.2  | 3.1  | 2.9  | 3.4  | 3    | 3.6  | 2.7  | 2.6  |
| CRDA (All) | 17   | 16.1 | 15.3 | 15.1 | 14.6 | 14.8 | 15.1 | 15.3 | 16.2 | 14.1 | 14.1 |

**(b). Mean age of drug users**

|                  | Year |      |      |      |      |      |      |      |      |      |      |
|------------------|------|------|------|------|------|------|------|------|------|------|------|
|                  | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| Methadone Clinic | 29.6 | 27.5 | 26.3 | 26.5 | 25.0 | 26.3 | 26.2 | 26.8 | 28.7 | 27.9 | 28.7 |
| SKC              | 36.4 | 36.2 | 36.1 | 35.9 | 36.4 | 37.4 | 38.9 | 39.3 | 40.3 | 40.7 | 41.4 |
| CRDA (new)       | 25.5 | 23.8 | 23.2 | 22.3 | 23.2 | 23.8 | 24.4 | 24.4 | 24.8 | 23.1 | 23.3 |
| CRDA (All)       | 36.3 | 35.3 | 34.2 | 33.7 | 33.1 | 33.4 | 33.6 | 33.8 | 34.6 | 32.4 | 32.5 |



**(c). Mean age of initiating drug use**

|            | Year |      |      |      |      |      |      |      |      |      |      |
|------------|------|------|------|------|------|------|------|------|------|------|------|
|            | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 |
| SKC *      | 21.7 | 22.1 | 22.4 | 22.5 | 22.3 | 21.9 | 21.2 | 21.0 | 21.1 | 20.9 | 21.3 |
| CRDA (new) | 21.4 | 20.6 | 19.8 | 19.1 | 20.1 | 20.9 | 21   | 21.4 | 21.2 | 20.4 | 20.7 |
| CRDA (All) | 19.3 | 19.2 | 18.9 | 18.6 | 18.5 | 18.6 | 18.5 | 18.5 | 18.4 | 18.3 | 18.4 |

\* assuming that the respondents have been on drug continuously without interruption

## Appendix I: HIV/AIDS report form (DH2293)

| <b>DEPARTMENT OF HEALTH</b><br><b>HIV/AIDS Report Form</b>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                        |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Please read the following instructions:</b></p> <ol style="list-style-type: none"> <li>This is a voluntary report form for reporting:               <ol style="list-style-type: none"> <li>newly diagnosed HIV infection;</li> <li>newly diagnosed AIDS;</li> <li>change(s) of status of previously diagnosed HIV/AIDS cases</li> </ol> </li> <li>Only sections, (A), (C) &amp; (D) need to be completed for reporting HIV infection.</li> <li>All sections, (A), (B), (C) &amp; (D) have to be completed for reporting AIDS or updating information.</li> <li>All individual's information will be treated as strictly confidential and used in global analysis only.</li> <li>Please mark CONFIDENTIAL on the envelope and mail the completed form to:</li> </ol> <p style="margin-left: 40px;">           Consultant Physician<br/>           Special Preventive Programmes<br/>           Department of Health<br/>           5/F Yaumatei Jockey Club Clinic<br/>           145 Battery Street, Yaumatei,<br/>           Kowloon.         </p>                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                        |
| <p><b>Section (A) Reporting HIV Infection</b></p> <p>Your reference code number: _____ (HK resident/non-resident*)</p> <p>Sex: M/F* Date of birth: (dd/mm/yyyy) _____ or age (at last birthday) _____</p> <p><b>For female: Is she pregnant: Yes/No* (complete Box 1 if "Yes")</b></p> <p>Ethnicity: Chinese/non-Chinese* (Asian/Caucasian/Black/others, please specify _____)*</p> <p>Marital status: married/widowed/separated/never married*</p> <p>Date of laboratory diagnosis in HK (dd/mm/yyyy): _____ Western Blot Confirmation: Yes/No*</p> <p>Name of Laboratory : _____</p> <p>Previous HIV positive result outside Hong Kong: No/Yes*</p> <p>(specify place: _____; date: (dd/mm/yyyy) _____)</p> <p>Main route of transmission (please tick; if &gt;1, put down 1 &amp; 2 in descending order of the two most likely routes)</p> <p>_____ sex: ( _____ heterosexual / _____ homosexual / _____ bisexual )*</p> <p>_____ transfusion of blood – local/overseas* (specify date : _____)</p> <p>_____ haemophilia</p> <p>_____ injecting drug use</p> <p>_____ perinatal</p> <p>_____ others; specify _____</p> <p>_____ not known</p> <p>CD4 count per u1 (if known): _____ date: (dd/mm/yyyy): _____</p> <p>HIV status of spouse, if any: unknown/positive/negative*</p> |                                                                                                                                                                                                                                                                                        |
| <p><b>Section (B) Reporting AIDS</b></p> <p>Is this an update of a previously reported HIV + case: Yes/No*</p> <p>Date of diagnosis: (dd/mm/yyyy) _____</p> <p>AIDS defining illness(es):</p> <ol style="list-style-type: none"> <li>_____ clinical Dx/pathological Dx*</li> <li>_____ clinical Dx/pathological Dx*</li> <li>_____ clinical Dx/pathological Dx*</li> </ol> <p>CD4 count per u1 (if known): _____ Date: (dd/mm/yyyy) _____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | <p style="text-align: center;"><b>Box 1</b></p> <p>Gravida _____ Para _____</p> <p>LMP (dd/mm/yyyy) _____</p> <p>Obstetric follow-up at:</p> <p>hospital/clinic _____</p> <p>Expected hospital/place of delivery:</p> <p>_____</p> <p>Current plan: Continue pregnancy/<br/>T.O.P*</p> |
| <p><b>Section (C)</b></p> <p>Current status (please tick the right choice):</p> <p>_____ An outpatient</p> <p>_____ An inpatient (Hospital : _____)</p> <p>_____ Died (date : (dd/mm/yyyy) _____ : cause of death: _____)</p> <p>_____ Left HK/defaulted follow-up (date last seen: (dd/mm/yyyy) _____)</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                        |
| <p><b>Section (D)</b></p> <p>Name of medical practitioner: _____ in private practice/public service*</p> <p>Correspondence Address:</p> <p>_____</p> <p>_____</p> <p>Date: _____ Tel. no.: _____ Fax no.: _____ E-mail : _____</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                        |
| <p><i>*delete whichever inappropriate</i></p> <p>DH 2293, revised August 2001</p> <p style="text-align: center;"><b>ALL INFORMATION WILL BE TREATED IN STRICT CONFIDENCE</b></p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                                        |

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

| <b>A definitive laboratory diagnosis of HIV infection<br/>normally by a positive screening test for HIV antibody (e.g. ELISA)<br/>supplemented by a confirmatory test (e.g. western blot)<br/>+<br/>one or more of the AIDS indicator conditions</b> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AIDS indicator conditions</b>                                                                                                                                                                                                                     | Candidiasis of bronchi, trachea, or lungs<br>Candidiasis, oesophageal<br>Cervical cancer, invasive<br>Coccidioidomycosis, disseminated or extrapulmonary<br>Cryptococcosis, extrapulmonary<br>Cryptosporidiosis, chronic intestinal (>1 month's duration)<br>Cytomegalovirus disease (other than liver, spleen or nodes)<br>Cytomegalovirus retinitis (with loss of vision)<br>Encephalopathy, HIV-related<br><i>Herpes simplex</i> : chronic ulcer(s) (>1 month's duration); or bronchitis, pneumonitis, or oesophagitis<br>Histoplasmosis, disseminated or extrapulmonary<br>Isosporiasis, chronic intestinal (>1 month's duration)<br>Kaposi's sarcoma<br>Lymphoma, Burkitt's (or equivalent term)<br>Lymphoma, primary, of brain<br>** <i>Mycobacterium tuberculosis</i> ; extrapulmonary or pulmonary/cervical lymph node (only if CD4<200/ul)<br>Pneumonia, recurrent<br>**Penicilliosis, disseminated<br>Mycobacterium, other species or unidentified species, disseminated or extrapulmonary<br><i>Pneumocystis carinii</i> pneumonia<br>Progressive multifocal leukoencephalopathy<br>Salmonella septicaemia, recurrent<br>Toxoplasmosis of brain<br>Wasting syndrome due to HIV |
| <p>*A low CD4 alone is not an AIDS defining condition in Hong Kong for surveillance purpose</p> <p>**AIDS defining conditions adopted in Hong Kong but not included in the CDC criteria</p>                                                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |