

The HIV and AIDS epidemic in the Western Pacific

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THE Western Pacific Region of the World Health Organization (WHO) consists of 35 countries and areas, with a total estimated population in 1992 of 1535 million¹. Seven countries account for 96% of this total. The region includes industrial countries, newly industrializing countries or areas, developing countries or areas, and some of the world's least developed countries. The regional population is expected to grow to 1700 million by the year 2000. The average national growth rate was 2% per year during 1985-90.

Global trends

A cumulative total 1,025,073 AIDS cases had been reported² worldwide up to the end of 1994. WHO estimated that the actual figure was closer to 4.5 million cases. Of the reported cases, the vast majority have been from the Americas and Africa, with Asia and the Pacific accounting for less than 2% of the total.

WHO estimates indicate that up to the end of December 1994, more than 18 million people had been infected by HIV², with the majority of the new infections during that year occurring in Africa and Asia. By the year 2000, WHO predicts 30-40 million HIV infections worldwide, with 90% of them expected to occur in developing countries³.

Current situation in the Western Pacific Region

Available evidence suggests that the HIV epidemic in the Western Pacific Region is at a relatively early state

compared to other parts of the world⁴. Few countries in the region had reported significant numbers of AIDS cases or HIV diagnoses prior to 1987. Since then, the epidemic has gradually spread throughout the region. Only eight of the thirty-five countries and areas (predominantly the smaller Pacific island nations) have yet to report any case of AIDS or HIV infection.

As Table 1 shows, as of 1 February 1995, 7349 cases of AIDS had been reported⁴ from countries in the region. Eighty-six per cent of AIDS cases have been reported from three countries: Australia, Japan and New Zealand, but this proportion is decreasing (Figure 1). Of the reported AIDS cases, the vast majority were men (94.1%) and less than 1% of the reported AIDS cases were children under 15 years of age⁵.

A cumulative total of 39,386 HIV infections had been reported⁶ in the Western Pacific Region as of 1 February 1995 (Table 1). Reported rates of HIV infection vary from 101 per 100,000 population in Australia and 64 per 100,000 in French Polynesia, to fewer than 9 per 100,000 reported in Hong Kong and 0.1 per 100,000 in China. Eighty-six per cent of infections in the region have occurred in men and 8% in women. The proportion of HIV infections among children remains small, less than 1% of the total.

New HIV infections in Australia have remained relatively constant in the past three years. In Japan, they seem to have peaked in 1992. In Malaysia, however, they have been increasing (Figure 2).

Reported cases of HIV infection or AIDS do not show the real prevalence of these conditions in any given population. For example, many who are infected with HIV

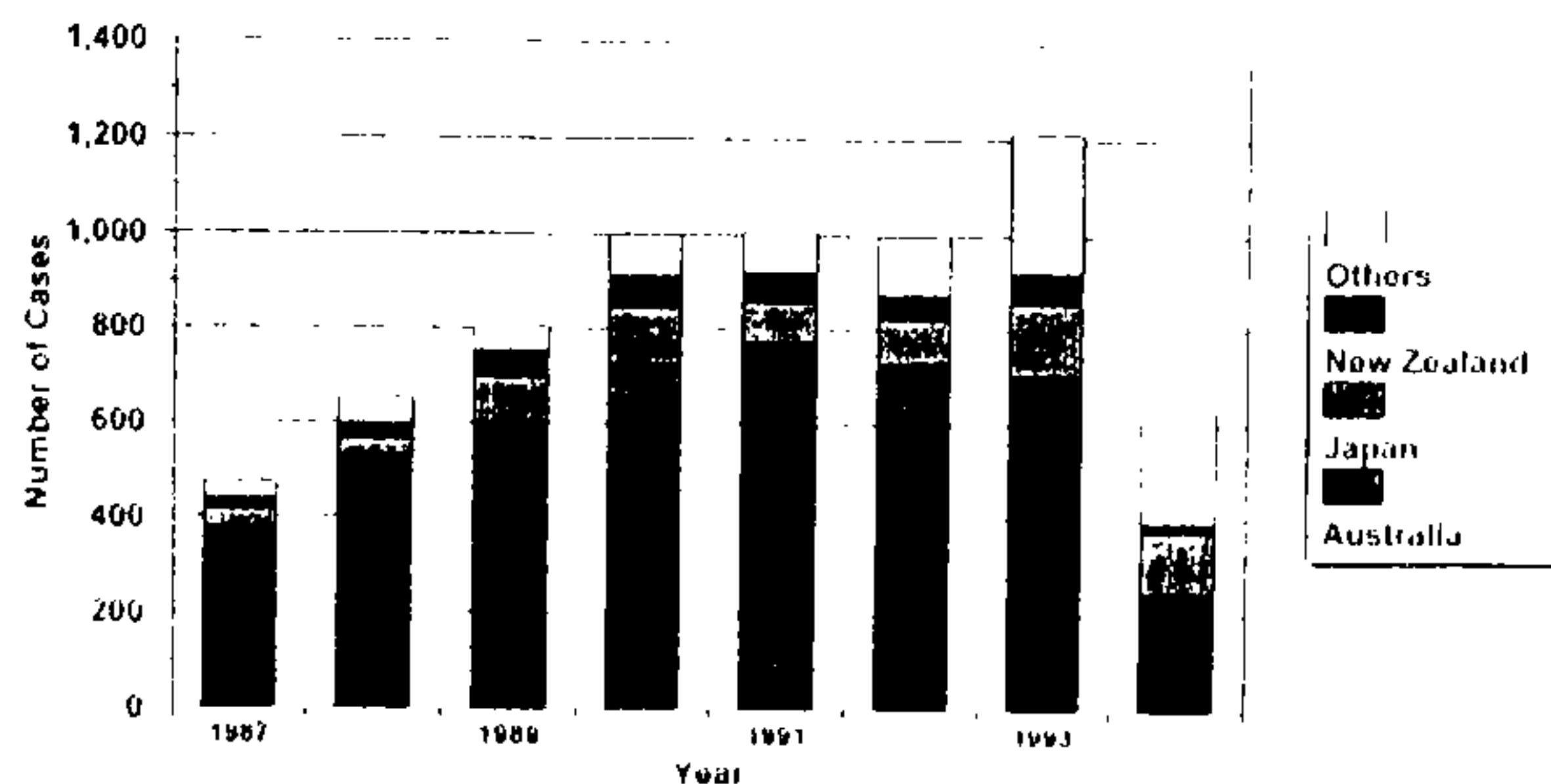


Figure 1. Annual reported incidence of AIDS, Western Pacific Region.

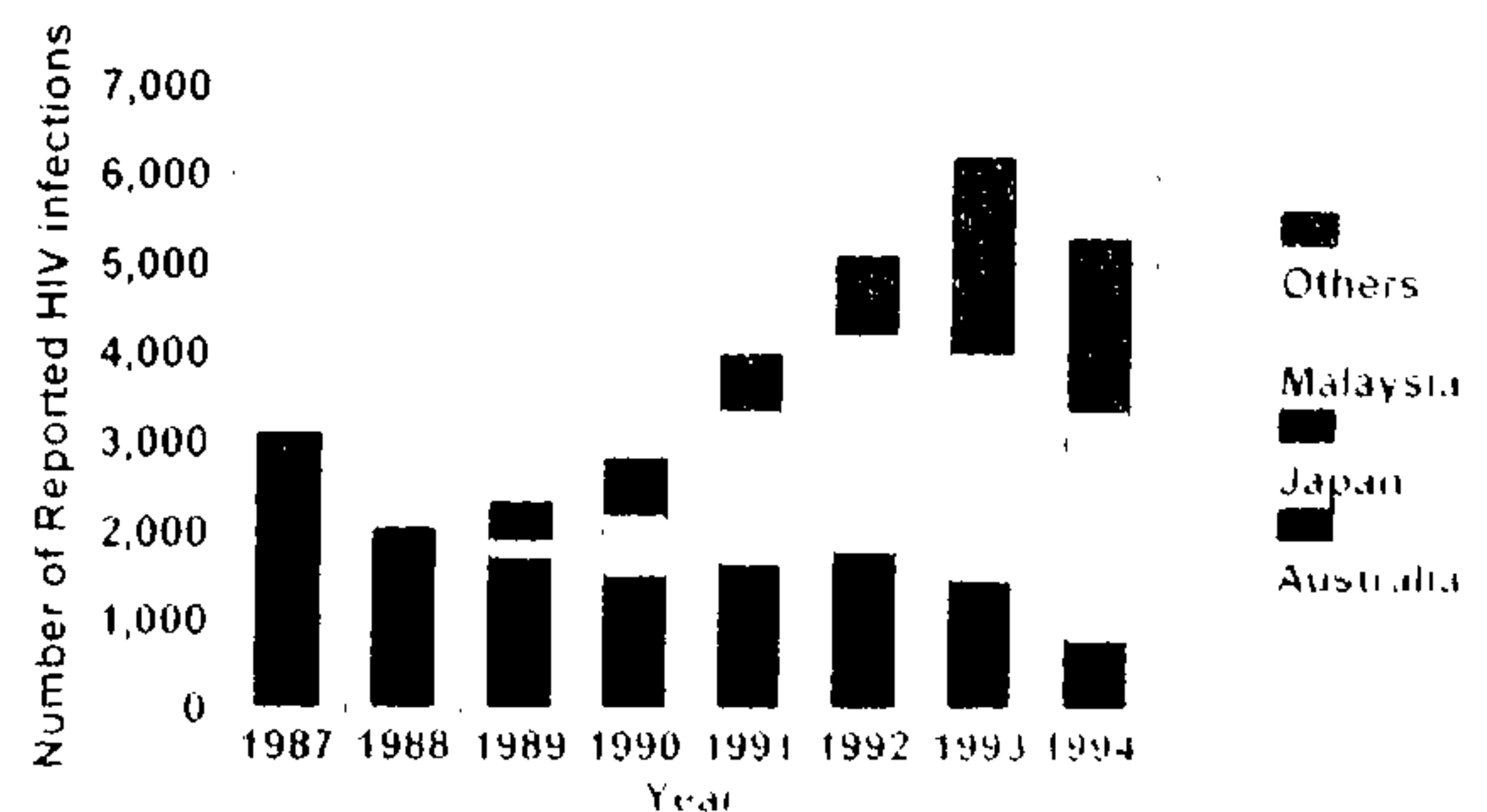


Figure 2. Reported incidence of HIV, Western Pacific Region 1987-1994

SPECIAL SECTION: AIDS IN ASIA

Table 1. Cumulative HIV diagnoses and AIDS cases by country, sex and rates per 100,000 population, Western Pacific Region

Country/area	AIDS				AIDS rate ¹	AIDS deaths	HIV ²				HIV rate ¹
	Males	Females	Unkn.	Total			Males	Females	Unkn.	Total	
American Samoa	0	0	0	0	0.00	0	0	0	0	0	0
Australia	4894	180	0	5074	28.03	3517	15346	840	2089	18275	100.97
Brunei Darussalam	4	0	0	4	1.37	2	175	7	0	182	62.22
Cambodia	0	0	1	1	0.01	1	362	126	145	633	6.62
China	41	2	0	43	0.00	24	1426	124	0	1550	0.12
Cook Islands	0	0	0	0	0.00	0	0	0	0	0	0.00
Fiji	4	3	0	7	0.90	7	15	6	0	21	2.71
French Polynesia	25	5	12	42	19.39	34	100	37	1	138	63.73
Guam	23	1	0	24	16.93	16	55	9	0	64	45.15
Hong Kong	108	7	0	115	1.98	70	442	38	10	490	8.43
Japan	769	41	0	810	0.65	483	2717	764	0	3481	2.77
Kiribati	0	0	0	0	0.00	0	0	0	2	2	2.55
Lao P D R	11	1	2	14	0.30	10	31	38	11	80	1.71
Macao	7	1	0	8	1.92	7	23	64	1	88	21.08
Malaysia	101	14	0	115	0.59	79	9653	380	15	10048	51.57
Mariana Islands, N	0	0	6	6	10.44	5	9	0	1	10	17.39
Marshall Islands	4	2	0	6	11.35	2	5	3	0	8	15.14
Micronesia, Fed Sts	2	0	0	2	1.75	1	2	0	0	2	1.75
Nauru	0	0	0	0	0.00	0	0	0	0	0	0.00
New Caledonia	33	4	0	37	19.92	20	90	21	0	111	59.76
New Zealand	432	19	0	451	12.73	359	867	69	17	953	26.91
Niue	0	0	0	0	0.00	0	0	0	0	0	0.00
Palau	1	0	0	1	5.83	1	1	0	0	1	5.83
Papua New Guinea	45	42	0	87	2.13	42	124	111	1	236	5.78
Philippines	104	62	0	166	0.25	95	290	260	7	557	0.85
Republic of Korea	20	5	0	25	0.06	22	343	43	0	386	0.87
Samoa	1	0	0	1	0.62	1	1	0	0	1	0.62
Singapore	83	6	0	89	3.04	61	230	22	0	252	8.59
Solomon Islands	0	0	0	0	0.00	0	0	0	0	0	0.00
Tokelau	0	0	0	0	0.00	0	0	0	0	0	0.00
Tonga	5	0	0	5	5.07	5	5	1	0	6	6.09
Tuvalu	0	0	0	0	0.00	0	0	0	0	0	0.00
Vanuatu	0	0	0	0	0.00	0	0	0	0	0	0.00
Viet Nam	197	18	0	215	0.30	64	1557	222	30	1809	2.51
Wallis and Futuna	1	0	0	1	7.14	0	2	0	0	2	14.29
Totals	6915	413	21	7349	0.45	4928	33871	3185	2330	39386	2.42

Data from reports received at WPRO as of 1 February 1995.

(1) Rate per 100,000 population based on WHO/WPR/HIN/Rev/June 1994.

(2) Totals include AIDS cases.

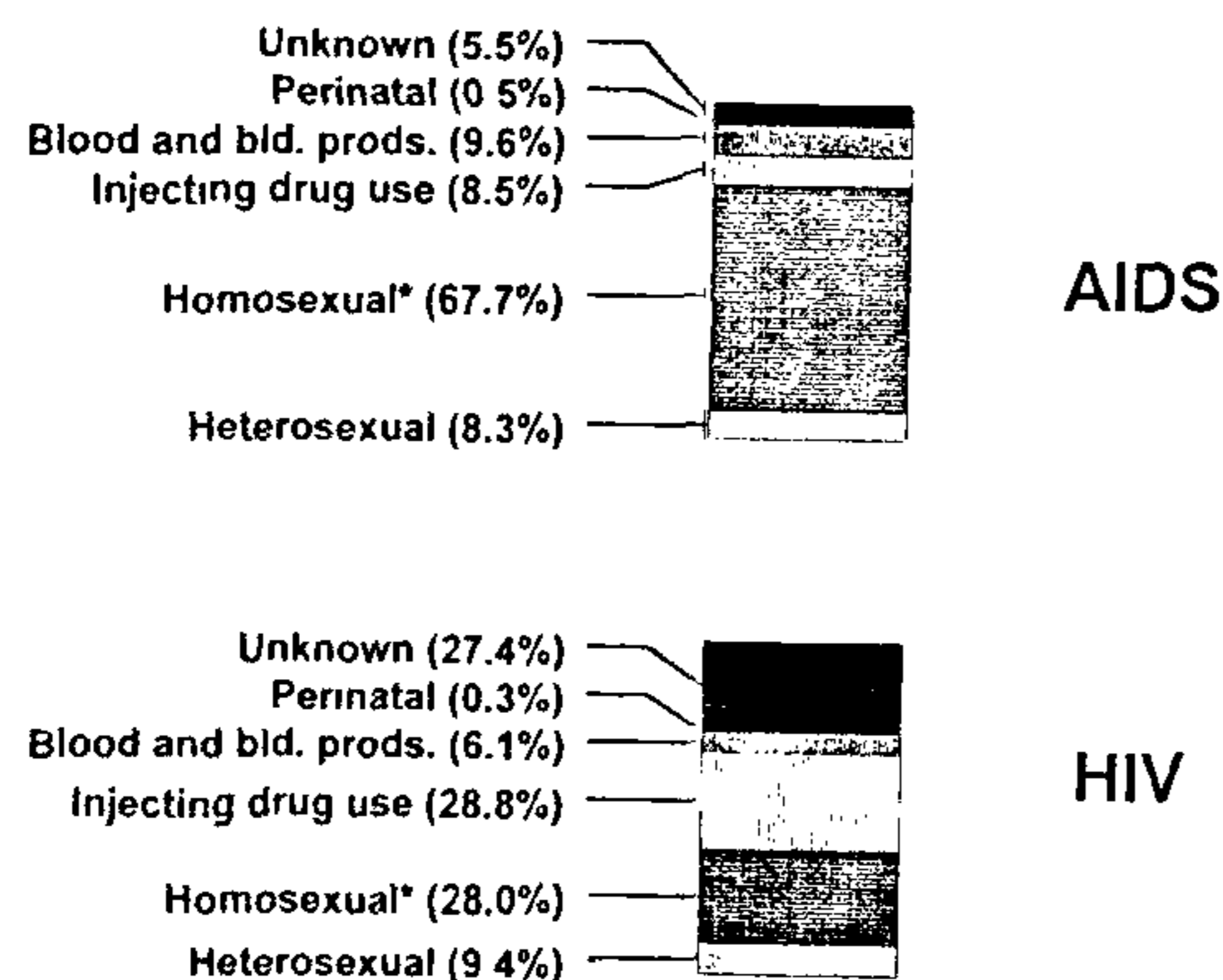


Figure 3. Transmission categories, AIDS and HIV, Western Pacific Region, cumulative to 1 February 1995. Note: HIV cases of unknown origin excluded. *Includes bisexual transmission.

are detected through screening procedures such as one would have prior to donating blood. Blood donors, however, represent only a small fraction of the population⁷. One can assume that there are others who are infected but who do not belong to the blood donor population.

To plan, develop and implement programmes, knowledge of the actual magnitude of HIV infection is necessary. Some countries have made estimates. These are often based on the number of reported cases, observed HIV prevalence rates, and the assumed size of the populations at risk. Australia, for example, estimates an HIV prevalence of 20,000–25,000, which is quite close to the reported figure. The Philippines, however, estimate the number of HIV-infected people at 35,000–50,000 compared to a reported 557 HIV infections.

Most countries in the Western Pacific Region have few reported cases, which makes reliable national and regional estimates difficult. Keeping these provisos in mind, WHO estimates that between 50,000 and 100,000 people are already infected in the region.

HIV and AIDS transmission in countries of the Western Pacific Region

The HIV epidemic in the Western Pacific Region has been characterized by wide variations between countries in the predominant modes of transmission, reflecting their great social, cultural and economic diversity and the measures taken to control the spread of the virus. Figure 3 shows the distribution of transmission categories for AIDS cases and HIV infections. It is important to note that AIDS figures represent the status of HIV approximately 10 years before, so that differences in rates in the modes of transmission indicate shifts in the way HIV is spread from one period to another. Close to 68% of AIDS cases in this region have been acquired through homosexual or bisexual contact. Injecting drug use and heterosexual transmission were responsible for 8.5% and 8.3% of AIDS cases, respectively. Note the decreased proportion of HIV infection among homosexuals and bisexuals and the increased proportion among heterosexuals and injecting drug users. This indicates the greater recent importance of the latter two risk categories in the transmission of HIV.

Figure 4 shows that homosexual transmission remains an important mode of transmission in many countries, including Australia, French Polynesia, Hong Kong, and New Zealand. In Australia, however, the number of homosexual men diagnosed with HIV is gradually declining (Figure 5). Another important feature of the Australian epidemic has been the low proportion of HIV infections among injecting drug users, which may explain why Australia has not seen an epidemic among heterosexuals.

Although the HIV epidemic in Japan was initially confined to people who had received blood products or blood transfusions prior to the screening of blood for HIV, during the last few years heterosexual transmission has been increasing (Figure 6).

Heterosexual transmission of HIV is predominant in many Western Pacific countries (Figure 7). In the Philippines, more than 50% of the reported infections have been

acquired by this mode of transmission. In the Republic of Korea, eight out of ten AIDS cases and almost 70% of HIV diagnoses have resulted from heterosexual contact. Cambodia, Lao People's Democratic Republic and Papua New Guinea show heterosexual transmission of HIV in almost all cases where exposure was known.

In a few countries the role of injecting drug use in the transmission of HIV is becoming increasingly prominent. In Malaysia, 79% of the reported HIV infections

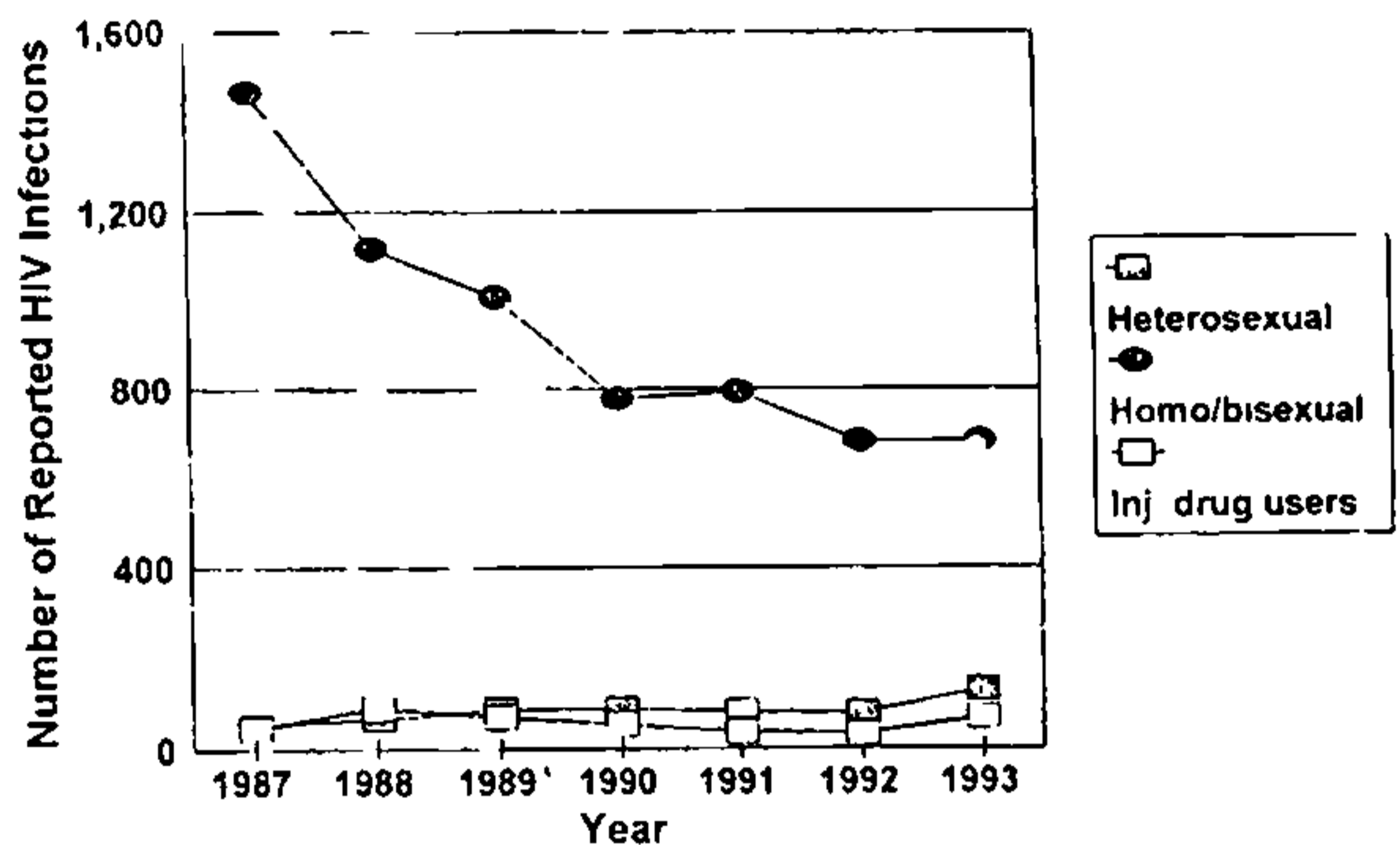


Figure 5. Trends in HIV infections, Australia, 1987-93.

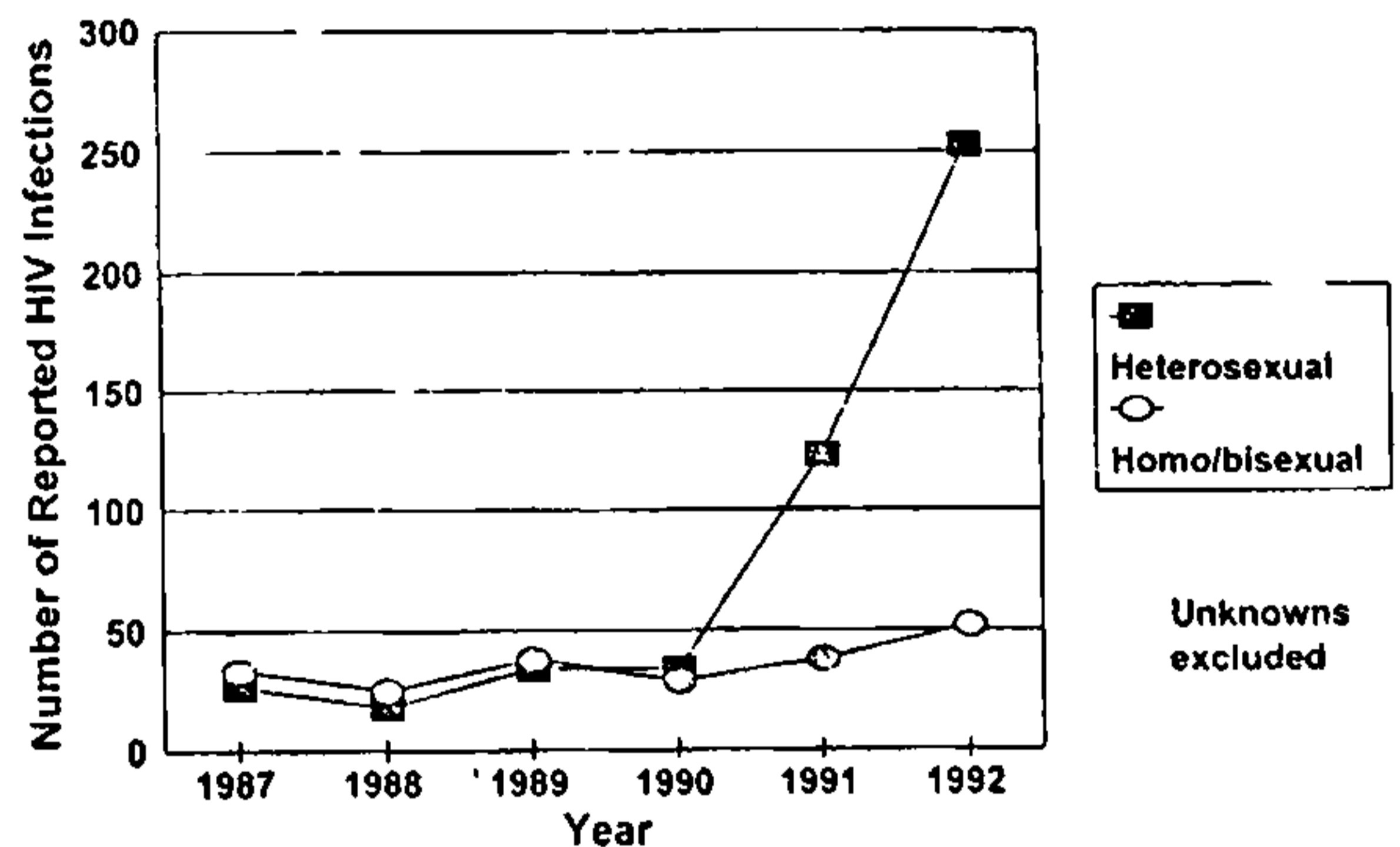


Figure 6. Trends in HIV infection, Japan, 1987-92.

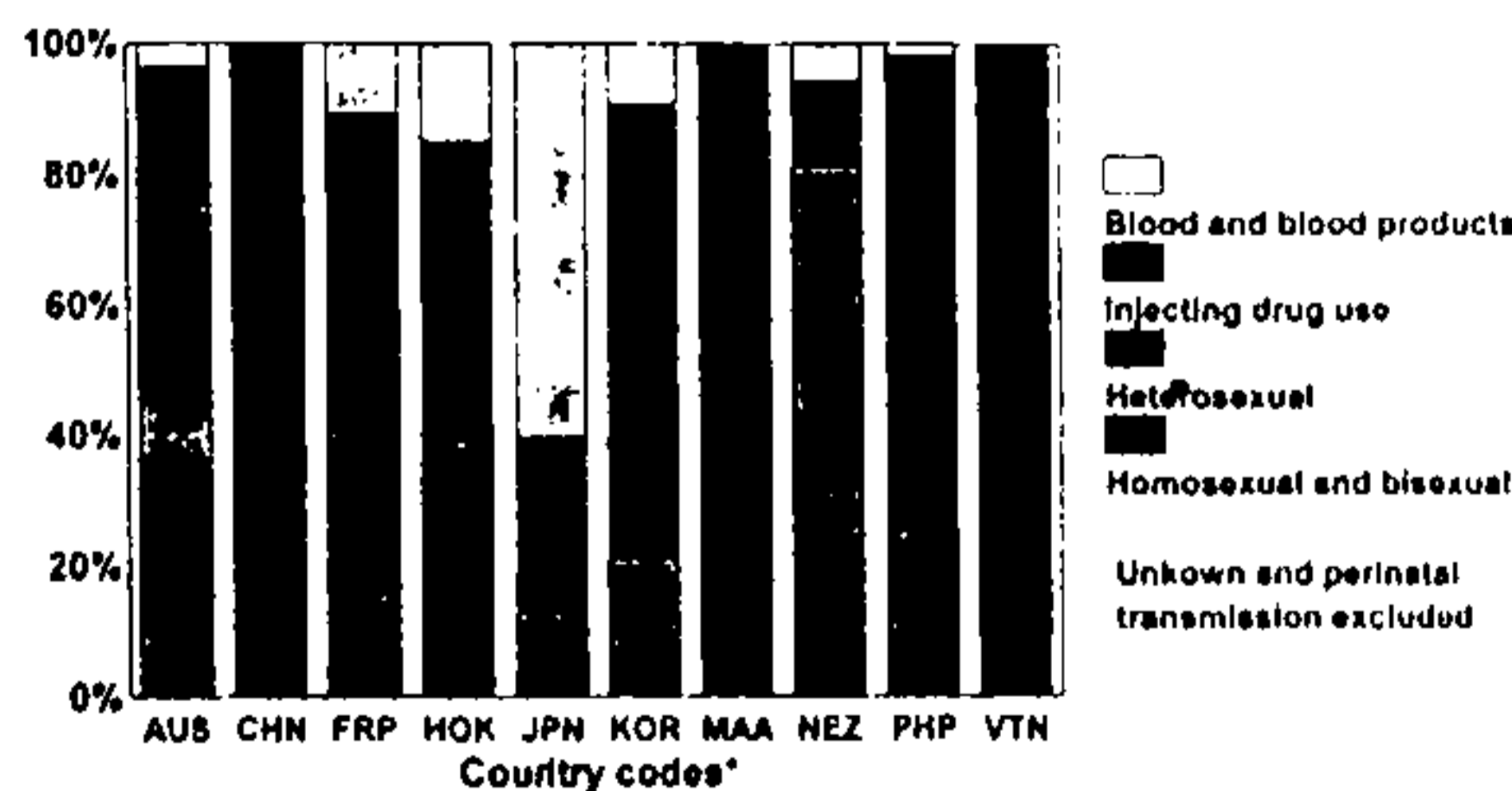


Figure 4. Transmission categories, HIV cases, selected countries, cumulative to 1 February 1995.

*AUS - Australia, CHN - China; FRP - French Polynesia; HOK - Hong Kong; JPN - Japan; KOR - Republic of Korea; MAA - Malaysia, NEZ - New Zealand; PHL - Philippines, VTN Viet Nam

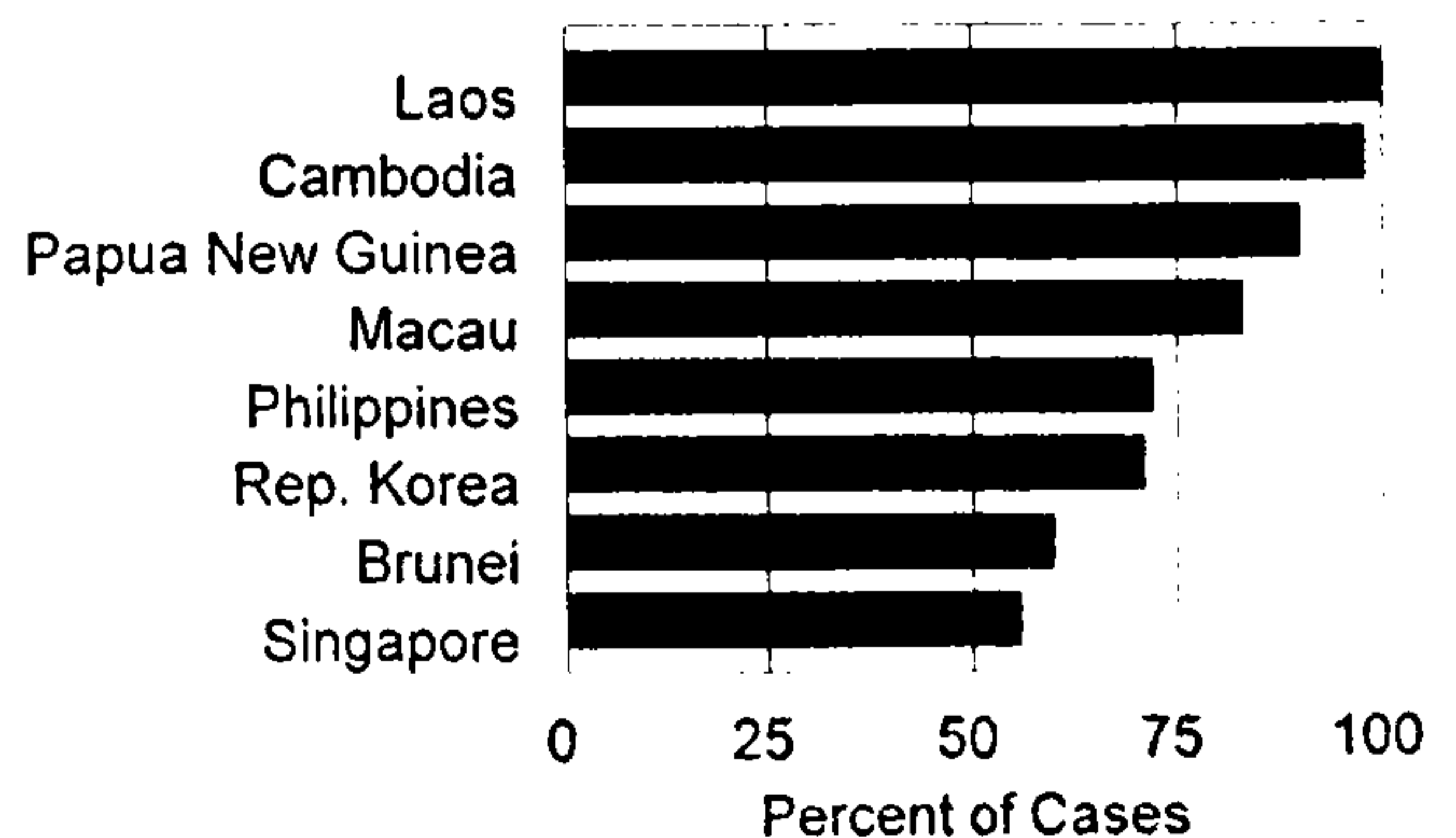


Figure 7. Heterosexual transmission, percentage when risks are known.



Figure 8. Trends in HIV infections Malaysia, 1987-93.

were attributed to injecting drug use. This number has increased dramatically since 1989 (Figure 8). More recently, Viet Nam has reported increasing number of HIV infections, over 80% of which is attributed to injecting drug use. China has also reported a significant number of HIV-infected injecting drug users, who account for 69% of all HIV transmission.

HIV has recently spread in Cambodia, reporting significant numbers of HIV infections for the first time in 1992 and 1993. Although only 1 AIDS case has yet been reported in Cambodia, more than 600 people have been diagnosed with HIV infection.

Risk factors for HIV transmission in the Western Pacific Region

Monitoring HIV infection in high-risk groups such as prostitutes, people with sexually transmitted diseases, injecting drug users, and homosexual or bisexual men is an essential part of HIV surveillance programmes. However, the results have to be carefully interpreted as survey methods differ. Unlinked anonymous testing is the method recommended for seroprevalence surveys and sentinel surveillance. In practice, voluntary confidential testing, compulsory testing of blood donors, and in some cases mandatory testing, are also used. As the test methods are not always specified and selection bias cannot be excluded, the results reported should be taken only as indicative of the situation in the areas surveyed. For example, sentinel surveillance of HIV infection in sexually transmitted disease clinics in Australia⁸⁻¹⁰ which involve relatively stable population sources, performed at regular intervals and using unlinked anonymous testing, will yield far more reliable data than the irregular surveillance of STD patients in Cambodia.

Prostitution

HIV has recently spread rapidly among prostitutes in countries such as Thailand and India, which are close to

the Western Pacific Region. With the exception of Cambodia, available data indicate that the spread of HIV among prostitutes has not yet occurred to the same extent in the region, even though sex industries catering to both local and foreign clients are well established in many countries.

The highest prevalence of HIV among prostitutes to date has been found in Cambodia. In one area, Toul Kork, 18 of the 127 (13.2%) women tested were HIV-infected. In a coastal area in the South, an unrepresentative sample of over 200 subjects showed¹¹ a prevalence of 38%. In Malaysia HIV prevalence among prostitutes has increased gradually, from zero in 1988 to 1.3% in 1991. In the mid-1980s, the prevalence of HIV among prostitutes tested in the Philippines was between 1.0 and 2.5%. Recent surveys, however, in Baguio and Cebu in the Philippines found no infection among more than 800 prostitutes tested, although testing bias could not be excluded. More recently, a survey in Metro Manila suggests a prevalence of 0.1-1.0% in this population group¹².

In the Republic of Korea, 411,125 tests performed between 1985 and 1991 revealed only 11 positive cases. No infection has been documented recently among prostitutes in Australia, Japan or Singapore.

Injecting drug use

The problem of HIV transmission through injecting drug use is escalating in Malaysia, where prevalence among injecting drug users rose from 0.1% in 1988 to 6.9% in 1992. In Viet Nam in early 1993, 92 out of 1061 (8.7%) of injecting drug users were found to be infected, most of whom came from Ho Chi Minh City. This has since increased to a cumulative percentage of 81% of 1809 reported HIV infections as of 1 February 1995. In China, injecting drug users infected with HIV were concentrated in Yunnan Province. Recent data, however, have indicated infection in other provinces as well. In Australia, the prevalence of HIV among injecting drug users remains at less than 5%. This may be attributable to the extensive efforts made to educate and protect injecting drug users in Australia, particularly with needle and syringe exchange programmes.

Homosexual and bisexual activity

Surveys conducted among men who have sex with other men show a range of prevalence from a localized high of 30.3% in Sydney, Australia, to zero in the Philippines. Japan and Singapore show a prevalence of 2.0% and 3.6%, respectively. Although the situation has stabilized in countries like Australia and New Zealand, data are still lacking on this transmission category in such countries as Cambodia, China, the Lao People's Democratic Republic, Malaysia, the Republic of Korea and Viet Nam.

Use of blood products

Blood transfusion and the use of blood products for haemophiliacs account for 6.1% of HIV transmission in the Western Pacific Region. The majority of these cases have been reported by Australia and Japan and represent transmission prior to the introduction of screening of the blood supply in 1985.

Perinatal transmission

Surveys performed to date among pregnant women have found virtually no HIV infection. This may be the reason for the less than 60 reported HIV infections and nineteen AIDS cases transmitted from mother to child within the region.

Sexually transmitted diseases

Systematic surveillance among those suffering from sexually transmitted diseases has been carried out in Fiji, Hong Kong, Papua New Guinea and Singapore. These and other studies show low levels of infection. In Cambodia, however, a recent study found 4.2% of 72 patients were infected. For the remaining countries, the lack of data is a result of insufficient surveillance in this category.

Future trends

Any forecasts of the future magnitude of HIV infection in the Western Pacific Region are bound to include wide margins. This is because there are many determinants of the infection and their significance for the region has not been thoroughly assessed. Present estimates suggest a two- to four-fold increase in the prevalence of HIV infection for the Western Pacific Region by the year 2000. This would mean that 100,000 to 400,000 people would

be infected. However, many factors unique to the region may affect these figures; for example, the high level of literacy in most countries in the region, the large numbers of people with access to radio and television, the wide circulation of newspapers, magazines and books, the well-developed health infrastructure, especially in respect of maternal and child health and family planning, and the relatively low prevalence of ulcerative sexually transmitted diseases may lead to a lower prevalence of HIV. However, other factors, such as proximity to areas of high prevalence of HIV infection and injecting drug use, large-scale migration, and complacency may have the opposite effect. These factors will vary in importance in different countries. An essential part of HIV surveillance and prevention programmes is to single out the risk factors for spread and to implement locally appropriate strategies.

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