

Review

The Current Status and Trends of HIV Infection in Japan

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日本の HIV 感染症の現況と動向

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Introduction

Since the first AIDS case reported February 1985 in Japan, annual reported number of HIV/AIDS has showed a continuous tendency to grow. Although the epidemic began mainly among hemophiliacs and coagulation disorder patients infected through imported HIV-contaminated blood coagulation factor products, more than half of cumulative HIV cases are presently reported as male cases through sexual contact between men. Recently re-increase trends of HIV infection among MSM (Men who have Sex with Men) group of 20–30 years, are to be paid administrative attention.

Surveillance System

AIDS surveillance in Japan was initiated by the Ministry of Health and Welfare in September 1984 on a voluntary basis in collaboration with about 600 clinics and hospitals. Since February 1987, HIV-positive cases have been included in the surveillance. The surveillance was legalized by the implementation of the “AIDS Prevention Law” in 1989 until the end of March, 1999. Under this law, those who were infected through blood coagulation factor products are excluded from reporting. Since April 1999 “the Act on Prevention of Infections and Medical Care for Patients with Infectious Diseases” has come into effect, and HIV/AIDS are now classified as Category 5 infectious disease of the Act. Physicians who initially diagnosed HIV/AIDS must submit the reporting form to governors via the director of the closest health center within seven days. Under the law cases infected through blood coagulation factor products are not

excluded from the reporting. The report of the Act is based on the first diagnosis only, but physicians can voluntarily report the pathological change of cases such as the onset of full AIDS, the death of AIDS patients by the different form to health centers.

The definition of AIDS for adults in Japan includes pulmonary tuberculosis, recurrent pneumonia and invasive cervical cancer as “Indicator Diseases” according to the 1994 expansion of the AIDS Surveillance Case Definition by World Health Organization, but CD4 count has not been taken into consideration^{1,2)}.

Trends of HIV Infection

The cumulative reported number of HIV infection as at 28th December 2014 was 16,858, excluding the cases infected through blood coagulation factor products³⁾.

Of the above cumulated reported cases, 83.7% were Japanese nationality, and 57.3% were infection through sexual contacts between men, and 27.3% were heterosexual contacts. Cases of intravenous drug use and vertical mother-to-infant transmission were limited to less than 1%. The mode of transmission could not be ascertained for 12.4% cases³⁾.

The peak age group of Japanese cases infected through sexual contacts between men was 25–29, and the proportion of transmissions in Japan was 94.7%. More than half of the reported places by prefecture were *Tokyo* (43.5%) and *Kanto and Koshinetsu Bloc* excluding *Tokyo* (12.5%)⁴⁾.

The reported number has an increasing trend with each passing year (Fig. 1) and related the annual number of HIV testing itself (Fig. 2).

As to the route of infection, the category of sexual contacts between men account for most of the reported cases and has been taking the lead in increase (Fig. 3).

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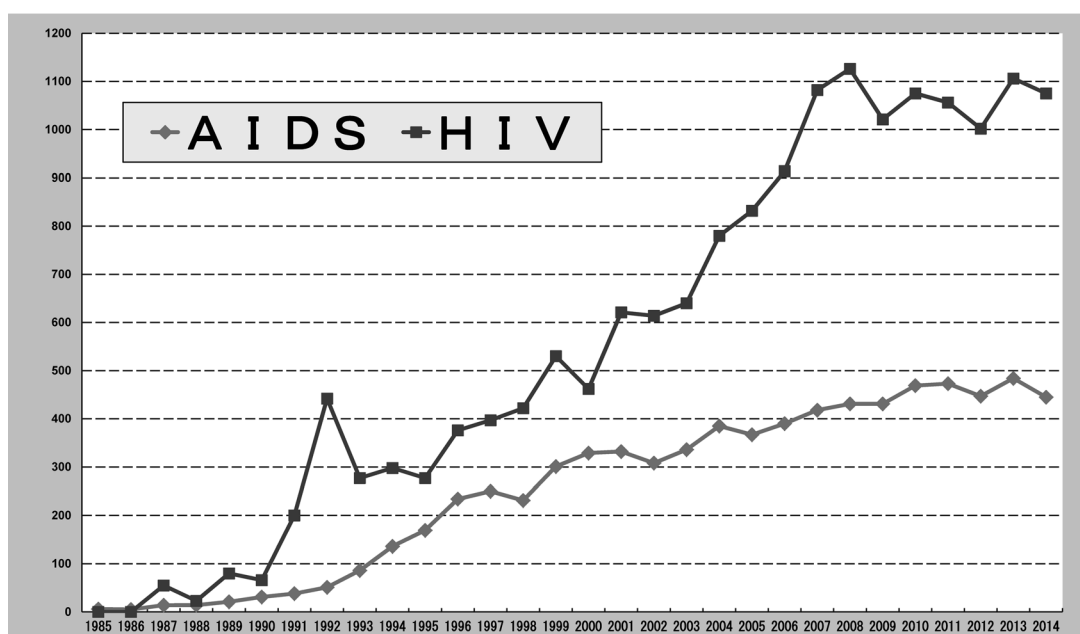


Figure 1 Reported number of HIV infection and AIDS in Japan by year. (excluding the cases infected through blood coagulation factor products) (2014 : preliminary figures)

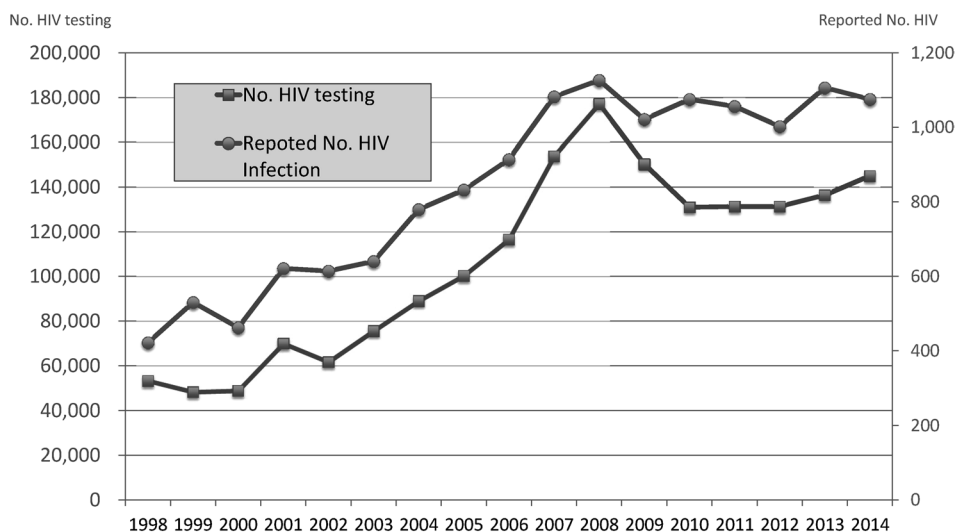


Figure 2 Annual change of the number of reported HIV infection and HIV antibody testing at Health Centers etc. in Japan (2014 : preliminary figures).

Trends of AIDS Cases

The cumulative reported number of AIDS cases as at 28th December 2014 was 7,633, excluding the cases infected through blood coagulation factor products³⁾.

Of the above cumulated reported cases, 84.0% were Japanese nationality, and 38.7% were infection through sexual contacts between men, and 35.8% were heterosexual contacts. The difference of percentage between these two

major categories are smaller than that of HIV infection. Cases of intravenous drug use and vertical mother-to-infant transmission were also less than 1%. The percentage of the mode of transmission could not be ascertained was 21.7% and larger than that of HIV infection⁴⁾.

The peak age group of Japanese AIDS cases infected through heterosexual contacts was 45-49, and the proportion of transmissions in Japan is 68.0%. The

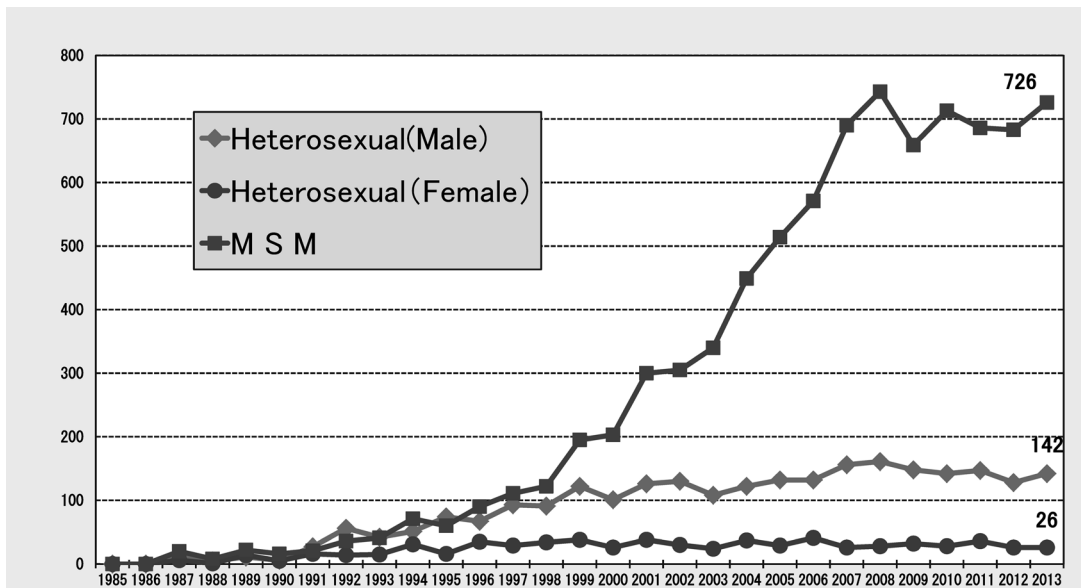


Figure 3 HIV infection of the cases of Japanese nationality, by the route of infection and year.

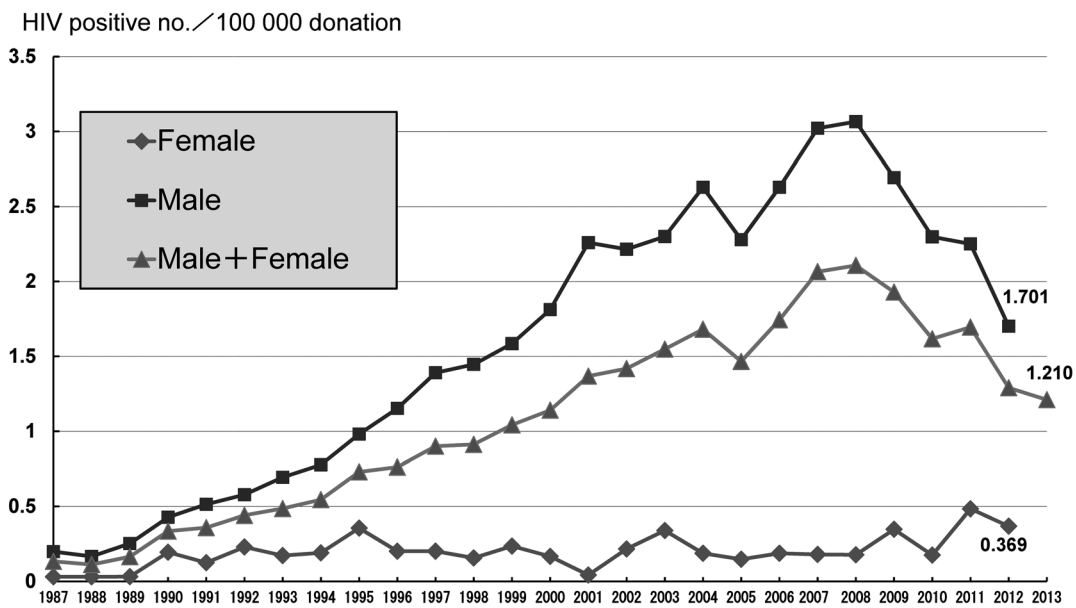


Figure 4 HIV positive rate in blood donation in Japan, 1987–2013.

reported places by prefecture were mainly in *Kanto and Koshinnetsu* Bloc excluding *Tokyo* (38.9%) and *Tokyo* (22.0%).

The peak age group of Japanese cases infected through sexual contacts between men was 35–39, younger than heterosexual contacts group by about ten years. The proportion of transmissions in Japan was 91.1%. The reported places were mainly *Tokyo* (32.5%) and *Kanto and Koshinnetsu* Bloc excluding *Tokyo* (18.3%).

The reported number of AIDS cases also has an

increasing trend with each passing year (Fig. 1) ⁴⁾.

Serosurveillance

Seroprevalence data in general population and higher risk groups are good indicator of the current epidemic in a country. The serosurveillance of donated blood began in 1986 and approximately 5 million donation are screened a year in Japan ⁴⁾. The prevalence of HIV-positive antibody in blood donation has increasing, especially among male blood donors (Fig. 4) ³⁾. Seroprevalence data voluntarily

collected from pregnant women, however, were lower and calculated less than 0.01%⁵⁾.

Problems and Future Perspectives

The most serious problem of HIV/AIDS surveillance system in Japan is the absence of case identifiers of the patients such as initials, sound codes or the date of birth which have introduced to the system in various developed countries. Case identifiers could avoid the duplication of case counting and track the pathological progression of the cases. The situation that some percentage of the mode of transmission was not clear and could not be ascertained was another problem, which may be attributable to the provision of the law that requires the case reporting within seven days.

The image of the disease has changed after the introduction of antiretrovirus therapy to the treatment in the middle of 1990s. Recently an increasing body of reports supports the role of immediate antiretroviral therapy among individuals detected and managed within the first six months of infection, to facilitate immune function, limit the size of the HIV reservoir, and reduce the risk of onward viral transmission⁶⁾.

On the other hand, a lack of social interest and information about the disease among young generation has possibly related with the recent re-increase of HIV

infection especially in young MSM of metropolitan area. Careful monitoring and targeted preventive measures mainly by regional authorities are urgently necessary.

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