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<THE TOPIC OF THIS MONTH> HIV/AIDS in Japan, 2017

HIV/AIDS surveillance in Japan started in 1984. Surveillance was conducted under the AIDS Prevention Law between 1989 and March 1999, and since April 1999 has operated under the Infectious Diseases Control Law. Under the law, physicians shall notify all diagnosed cases (see <http://www.niid.go.jp/niid/images/iasr/34/403/de4031.pdf>). The data in this article were derived from the annual report of the National AIDS Surveillance Committee for the year 2017 [published by the Tuberculosis and Infectious Diseases Control Division, the Ministry of Health, Labour and Welfare (MHLW), <http://api-net.jfap.or.jp/status/index.html>].

For surveillance purposes, HIV/AIDS cases are classified into two categories, “HIV” or “AIDS” (see footnote*). The cumulative number of reported cases (excluding coagulating agent-related cases) from 1985–2017 was 19,896 for “HIV” (17,470 males; 2,426 females) and 8,936 for “AIDS” (8,122 males; 814 females) (Fig. 1). According to the National Survey of Blood Coagulation Abnormality Cases (as of 31 May 2017), the cumulative number of coagulating agent-related HIV infected cases was 1,432, including 710 deaths. Globally, an estimated 36.9 million people are currently HIV-infected. Every year, 1.8 million acquire HIV infection and an estimated 940,000 die from the infection (UNAIDS FACT SHEET JULY 2018; http://www.unaids.org/sites/default/files/media_asset/UNAIDS_FactSheet_en.pdf).

1. HIV/AIDS cases reported in Japan in 2017

Since 2007, around 1,500 cases have been reported annually (annual range of 1,002–1,126 “HIV” and 418–484 “AIDS” cases). In 2017, 976 “HIV” (938 males; 38 females) and 413 “AIDS” (375 males; 38 females) cases were reported (Fig. 2). Among the total 976 “HIV” cases, 824 were Japanese (802 males; 22 females) and 152 were non-Japanese (136 males; 16 females). While 82% (802/976) of the total “HIV” cases were Japanese males, the number of foreign male “HIV” cases has increased in the past 3 years (82 in 2014, 88 in 2015, 108 in 2016, and 136 in 2017), recording the highest numbers to date. Among all “HIV” cases, 73% (709/976) were MSM (men who had sex with men, including bisexual contacts), and among Japanese male “HIV” cases, 78% (624/802) were MSM (Fig. 3), and the majority of them were in their 20’s to 40’s (Fig. 4). On the other hand, among the total 976 HIV cases, 126 males (13%) were infected through

Figure 1. Cumulative reported number of HIV cases and AIDS patients, 1985–2017, Japan

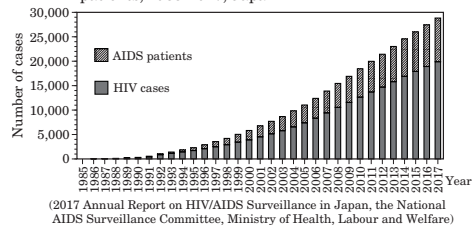


Figure 2. Annual reported number of new HIV cases and AIDS patients, 1985–2017, Japan

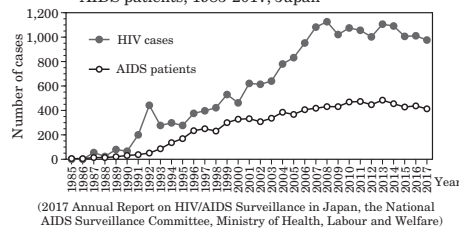


Figure 3. Reported number of new Japanese male HIV cases and AIDS patients by mode of transmission, 1985–2017, Japan

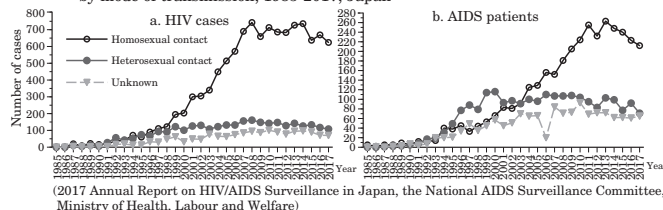
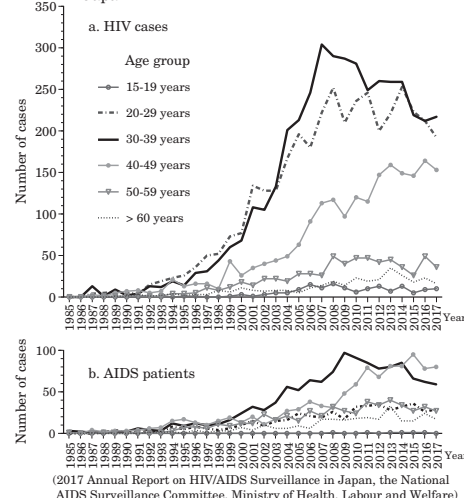


Figure 4. Reported number of new Japanese male HIV cases and AIDS patients due to homosexual contact by age group, 1985–2017, Japan



*HIV surveillance in Japan counts a case as an “HIV case” if a case is laboratory diagnosed with HIV infection (but without manifestation of AIDS symptoms), and as an “AIDS case” if a case is laboratory diagnosed with HIV infection and manifests AIDS symptoms at the time of initial diagnosis and report. An HIV-infected case once registered as an “HIV case” is not registered as an “AIDS case” even if he/she subsequently develops AIDS.

(THE TOPIC OF THIS MONTH-Continued)

Table. Notifications of HIV cases and AIDS patients in Japan by top 10 prefectures in 2017

a. HIV cases			
Prefecture	Reported number*	Prefecture	per 100,000 population
1 Tokyo	362 (370)	1 Tokyo	2.638
2 Osaka	124 (140)	2 Okinawa	1.594
3 Kanagawa	57 (57)	3 Osaka	1.405
4 Fukuoka	54 (46)	4 Fukuoka	1.057
5 Aichi	41 (70)	5 Okayama	0.839
6 Chiba	34 (31)	6 Kagawa	0.724
7 Saitama	25 (25)	7 Kagoshima	0.677
7 Hyogo	25 (20)	8 Miyazaki	0.643
9 Okinawa	23 (17)	9 Kanagawa	0.622
10 Hokkaido	19 (23)	10 Kumamoto	0.567

b. AIDS patients			
Prefecture	Reported number*	Prefecture	per 100,000 population
1 Tokyo	97 (97)	1 Tokyo	0.707
2 Osaka	50 (48)	2 Osaka	0.567
3 Aichi	26 (32)	3 Okinawa	0.554
4 Kanagawa	25 (26)	4 Toyama	0.473
5 Fukuoka	24 (46)	5 Fukuoka	0.470
6 Chiba	17 (19)	6 Kagoshima	0.431
7 Hokkaido	15 (19)	7 Kochi	0.420
8 Hyogo	11 (15)	8 Kagawa	0.414
9 Kyoto	10 (7)	9 Tokushima	0.404
10 Saitama	9 (15)	10 Kyoto	0.385

* (): Reported number in 2016
(2017 Annual Report on HIV/AIDS Surveillance in Japan, the National AIDS Surveillance Committee, Ministry of Health, Labour and Welfare)

heterosexual contact, and among 802 Japanese male cases, 108 (13%) were infected through heterosexual contact. Among 22 Japanese HIV-infected females, 12 were infected heterosexually, 1 through maternal transmission, and 9 through unknown routes. Among Japanese male cases, although 1-5 intravenous drug use (IDU) infection cases had been reported annually since 2001 (except 2013), no such case was reported in 2017.

Suspected place of infection: Until 1992, the majority of infections were those infected abroad; thereafter, most infections have been acquired in Japan. In 2017, 80% of the total "HIV" cases (781/976) and 88% of "HIV" cases with Japanese nationality (723/824) were infected in Japan.

Place of report (based on place of notifying physician): Areas that reported many HIV/AIDS cases in 2017 were the Kanto-Koshinetsu area (includes Tokyo), which reported 528 "HIV" and 170 "AIDS" cases, and the Kinki area, which reported 174 "HIV" and 81 "AIDS" cases. When prefectures were compared by notifications per 100,000 population, in addition to the prefectures belonging to the above areas, prefectures in Kyushu and Shikoku areas appeared in the list of the top 10 (Table).

2. HIV antibody positivity among blood donors

In 2017, among 4,775,648 donated blood specimens, 43 were HIV positive (42 males; 1 female), which corresponds to 0.900 HIV-positive specimens (male: 1.213; female: 0.076) per 100,000 blood donations (Fig. 5).

3. HIV antibody tests and consultations provided by local governments

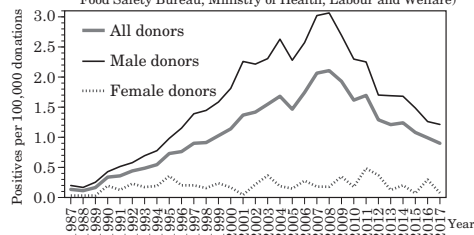
Local governments conduct HIV antibody tests at public health centers and other facilities. In 2017, a total of 123,432 specimens were tested for HIV antibody, an increase from 2016 (118,005 specimens) (Fig. 6). Among them, 463 specimens were HIV antibody-positive (422 antibody-positive in 2016); the positivity was 0.38% (0.36% in 2016). The positivity was 0.31% (283/92,022) among public health centers and 0.57% (180/31,410) for other facilities, higher in the latter. Additionally, the number of persons that used consultation services in 2017 was 123,768, higher than in 2016 (119,378 consultations).

Conclusion

The number of HIV/AIDS cases reported in 2017 was 1,389 (1,448 in 2016). About 30% of the HIV/AIDS cases in 2017 were detected after the development of AIDS, which suggests that many HIV-infected people were unaware of their own HIV infection. Based on the Guidelines for AIDS Prevention, it is important to prevent the spread of infection and promote early treatment, through information dissemination activities regarding HIV infection prevention and early detection, in addition to the formulation and implementation of effective countermeasures based on the care cascade framework (which promotes HIV infection prevention and early detection). Preventive measures include making HIV testing and medical consultations more accessible in time and place for those where prevention is important, such as MSM, adolescents, commercial sex workers, and their clients. It is important to consider human rights and coordination among key stakeholders (e.g., healthcare workers, non-governmental organizations, and those in the education sector).

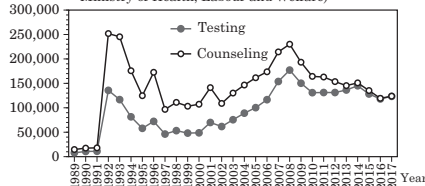
To control HIV/AIDS in Japan, it is necessary that the national HIV/AIDS control efforts link to global HIV control efforts, in addition to domestic efforts aimed at monitoring and understanding trends, information dissemination and raising awareness for prevention, and early diagnosis and treatment. While effective in preventing progression to AIDS, anti-HIV chemotherapy does not eliminate HIV from the patient. Life-long treatment is necessary, which is associated with the occurrence of drug-resistant HIV variants and serious pathological conditions due to latent infection under antiretroviral therapy, such as neurocognitive dysfunction, osteoporosis, and cardiovascular disorder, which are new challenges for HIV/AIDS management.

Figure 5. HIV-antibody positive specimens (based on confirmatory test results) among blood donors in Japan, 1987-2017 (Blood and Blood Products Division, Pharmaceutical and Food Safety Bureau, Ministry of Health, Labour and Welfare)



In 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016 and 2017, three of 67, one of 79, two of 82, two of 87, two of 92, two of 78, one of 87, six of 102, zero of 107, two of 102, one of 86, three of 89, one of 68, one of 63, zero of 62, one of 53, one of 48 and zero of 43 positive donors, respectively, were positive only by the nucleic acid amplification test.

Figure 6. Number of HIV testing and counseling at health centers*, 1989-2017, Japan (Specific Disease Control Division, Health Service Bureau, Ministry of Health, Labour and Welfare)



* includes other facilities managed by local government units

The statistics in this report are based on 1) the data concerning patients and laboratory findings obtained by the National Epidemiological Surveillance of Infectious Diseases undertaken in compliance with the Act on the Prevention of Infectious Diseases and Medical Care for Patients with Infectious Diseases, and 2) other data covering various aspects of infectious diseases. The prefectural and municipal health centers and public health institutes (PHIs), the Department of Environmental Health and Food Safety, the Ministry of Health, Labour and Welfare, and quarantine stations, have provided the above data.