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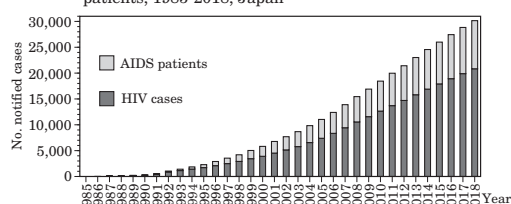
## <THE TOPIC OF THIS MONTH> HIV/AIDS in Japan, 2018

HIV/AIDS surveillance in Japan started in September 1984. It was conducted under the AIDS Prevention Law between February 1989 and March 1999, and has been operated under the Infectious Diseases Control Law since April 1999. Under the law, physicians must 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 2018 (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 notified cases (excluding coagulating agent-related cases) from 1985-2018 was 20,836 for "HIV" (18,359 males; 2,477 females) and 9,313 for "AIDS" (8,475 males; 838 females) (Fig. 1). According to the National Survey of Blood Coagulation Abnormality Cases (as of 31 May 2018), the cumulative number of coagulating agent-related HIV infected cases was 1,439, including 717 deaths. Globally, an estimated 37.9 million people are currently infected with HIV. Each year, 1.7 million become infected and an estimated 770,000 die from it (UNAIDS FACT SHEET 2019; <https://www.unaids.org/en/resources/fact-sheet>).

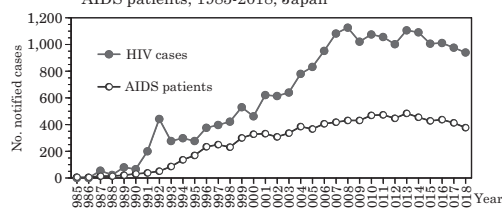
**HIV/AIDS cases notified in Japan in 2018:** The number of new HIV/AIDS cases notified annually has exceeded 1,300 since 2006, and has been on a flat to slightly decreasing trend after peaking at 1,590 in 2013. In 2018, 940 "HIV" (889 males; 51 females) and 377 "AIDS" (353 males; 24 females) cases were notified (Fig. 2). Among the total 940 "HIV" cases, 800 were Japanese (768 males; 32 females) and 140 were non-Japanese (121 males; 19 females), and Japanese males accounted for 82% of the total "HIV" cases (768/940). The number of newly notified foreign male HIV cases had been increasing in recent years, but in 2018, it decreased slightly from the previous year (82 in 2014, 88 in 2015, 108 in 2016, 136 in 2017, and 121 in 2018). Among all "HIV" cases, 71% (670/940) were MSM (men who had sex with men, including bisexual contacts), and among Japanese male "HIV" cases, 76% (584/768) were MSM (Fig. 3), with the majority in their 20's to 40's (Fig. 4). On the other hand, among the total 940 HIV cases, 121 males (13%) were infected through heterosexual contact, and among 768

Figure 1. Cumulative notified number of HIV cases and AIDS patients, 1985-2018, Japan



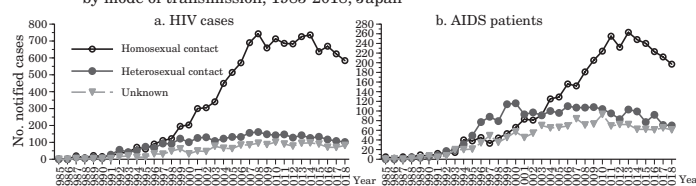
(2018 Annual Report on HIV/AIDS Surveillance in Japan, the National AIDS Surveillance Committee, Ministry of Health, Labour and Welfare)

Figure 2. Annual notified number of new HIV cases and AIDS patients, 1985-2018, Japan



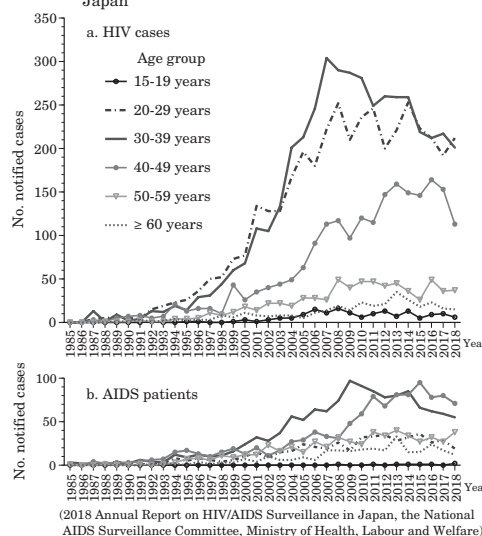
(2018 Annual Report on HIV/AIDS Surveillance in Japan, the National AIDS Surveillance Committee, Ministry of Health, Labour and Welfare)

Figure 3. Notified number of new Japanese male HIV cases and AIDS patients by mode of transmission, 1985-2018, Japan



(2018 Annual Report on HIV/AIDS Surveillance in Japan, the National AIDS Surveillance Committee, Ministry of Health, Labour and Welfare)

Figure 4. Notified number of new Japanese male HIV cases and AIDS patients due to homosexual contact by age group, 1985-2018, Japan



(2018 Annual Report on HIV/AIDS Surveillance in Japan, the National AIDS Surveillance Committee, Ministry of Health, Labour and Welfare)

\*HIV surveillance in Japan counts a case as an "HIV case" if HIV infection without manifestation of AIDS symptoms is diagnosed at a laboratory, and as an "AIDS case" if HIV infection is detected at a laboratory, and AIDS symptoms have manifested at the time of initial diagnosis and report. An HIV case once registered as an "HIV case" is not registered as an "AIDS case" even if the patient subsequently develops AIDS.

(THE TOPIC OF THIS MONTH-Continued)

Table. Notifications of HIV cases and AIDS patients in Japan, by top 10 prefectures in 2018

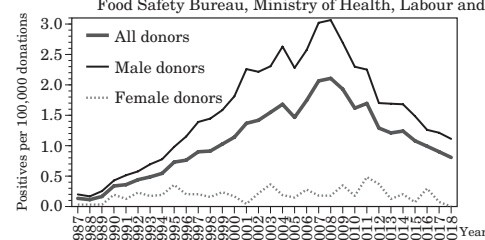
a. HIV cases			
Prefecture	Notified number*	Prefecture	per 100,000 population
1 Tokyo	351 (362)	1 Tokyo	2.539
2 Osaka	116 (124)	2 Osaka	1.316
3 Aichi	76 (41)	3 Aichi	1.008
4 Kanagawa	53 (57)	4 Okinawa	0.898
5 Fukuoka	39 (54)	5 Okayama	0.790
6 Chiba	36 (34)	6 Fukuoka	0.764
7 Hokkaido	21 (19)	7 Saga	0.733
7 Hyogo	21 (25)	8 Gifu	0.701
9 Saitama	18 (25)	9 Kanagawa	0.578
10 Shizuoka	15 (11)	10 Chiba	0.576
10 Okayama	15 (16)		

b. AIDS patients			
Prefecture	Notified number*	Prefecture	per 100,000 population
1 Tokyo	72 (97)	1 Tokushima	0.815
2 Osaka	41 (50)	2 Kochi	0.708
3 Fukuoka	33 (24)	3 Oita	0.699
4 Kanagawa	26 (25)	4 Fukuoka	0.646
5 Aichi	26 (26)	5 Tokyo	0.521
6 Chiba	15 (17)	6 Okinawa	0.483
7 Saitama	14 (9)	7 Osaka	0.465
8 Shizuoka	13 (8)	8 Gifu	0.451
9 Hiroshima	11 (7)	9 Mie	0.391
10 Gifu	9 (3)	10 Hiroshima	0.390

\*( ): Notified number in 2017

(2018 Annual Report on HIV/AIDS Surveillance in Japan, the National AIDS Surveillance Committee, Ministry of Health, Labour and Welfare)

Figure 5. HIV-antibody positive specimens (based on confirmatory test results) among blood donors in Japan, 1987-2018 (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, 2017 and 2018, 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, zero of 43 and two of 38 positive donors, respectively, were positive only by the nucleic acid amplification test.

Figure 6. Number of HIV testing and counseling at health centers,\* 1989-2018, Japan (Specific Disease Control Division, Health Service Bureau, Ministry of Health, Labour and Welfare)



\*includes other facilities managed by local government units

Japanese male cases, 102 (13%) were infected through heterosexual contact. Among 32 Japanese HIV-infected females, 23 were infected heterosexually and 9 through unknown routes. Among Japanese male cases, although 1-5 intravenous drug use (IDU) infection cases had been notified annually since 2001 (except 2013 and 2017), one case was notified in 2018.

**Suspected place of infection:** Until 1992, the majority of infections were acquired abroad; thereafter, most infections have been acquired in Japan. In 2018, 82% of all "HIV" cases (774/940) and 88% of "HIV" cases in Japanese nationals (706/800) were acquired in Japan.

**Place of notification (based on place of notifying physician):** Areas that notified many HIV/AIDS cases in 2018 were the Kanto-Koshinetsu area (includes Tokyo), which notified 498 "HIV" and 147 "AIDS" cases, the Kinki area with 161 "HIV" and 61 "AIDS", the Tokai area with 112 "HIV" and 55 "AIDS", and the Kyushu with 83 "HIV" and 61 "AIDS". When prefectures were compared by notifications per 100,000 population, prefectures in Kyushu, Chugoku, and Shikoku were in the top 10 (Table).

**Reference information 1. HIV antibody positivity among blood donors:** In 2018, among 4,707,951 donated blood specimens, 38 were HIV-positive (38 males; 0 female), which corresponds to 0.807 HIV-positive specimens (male: 1.112; female: 0) per 100,000 blood donations (Fig. 5).

**Reference information 2. HIV antibody tests and consultations provided by local governments:** Local governments conduct HIV antibody tests at public health centers and other facilities. In 2018, a total of 130,759 specimens were tested for the HIV antibody, an increase from 2017 (123,432 specimens) (Fig. 6). Among them, 385 specimens were HIV antibody-positive (463 antibody-positive in 2017); the positivity was 0.29% (0.38% in 2017). The positivity was 0.24% (233/97,107) among public health centers and 0.45% (152/33,652) at other facilities, being higher at the latter. Additionally, the number of persons that used consultation services in 2018 was 127,830, increasing from in 2017 (123,768 consultations).

**Conclusion:** The number of HIV/AIDS cases notified in 2018 was 1,317 (1,389 in 2017). Approximately 29% of the HIV/AIDS cases in 2018 were detected after the development of AIDS, which suggests that many HIV-infected people are 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 both time- and location-wise for those among whom prevention is important such as MSM and commercial sex workers. 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 be connected 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. Although it is effective at preventing progression to AIDS, anti-HIV chemotherapy does not eliminate HIV from the patient. Life-long treatment is necessary, but it is associated with the development 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.

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.

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