

# Communicable Diseases WATCH



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## FEATURE IN FOCUS

### Review of HIV/AIDS epidemiology in 2019

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The Department of Health (DH) implemented a voluntary anonymous case-based HIV and AIDS reporting system with input from both clinicians and laboratories in 1984 following the first report of HIV. The cumulative number of HIV and AIDS reported in Hong Kong reached 10 280 and 2 118 cases at the end of 2019.

The annual number of newly reported HIV cases has decreased slightly for the fourth consecutive year when compared to the peak of 725 cases in 2015. The number of reports decreased by about 9.5% (a drop of 59 cases) to 565 in 2019 as compared with that of 624 in 2018 (Figure 1).

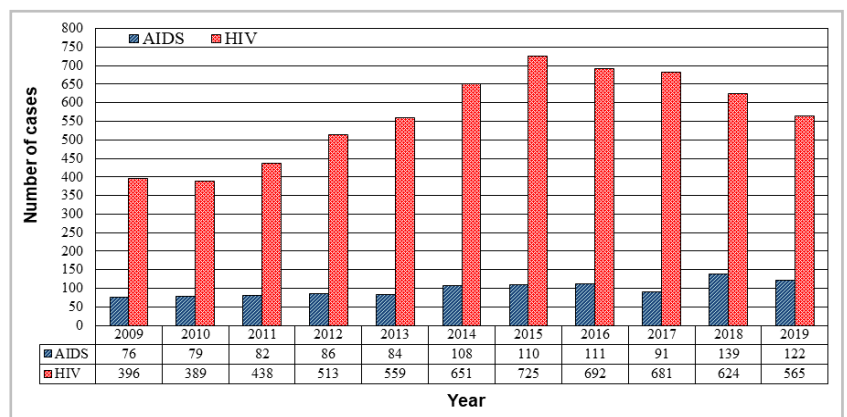


Figure 1 - HIV and AIDS reports (2009 to 2019).

Similar to previous few years, the HIV situation in Hong Kong in 2019 was still dominated by sexual transmission, which accounted for 81.2% of all reported cases. Men who have sex with men (MSM), which includes homosexual and bisexual contact, was the commonest mode of transmission and accounted for more than half (58.6%) of all HIV reports. The ratio of MSM cases to heterosexual cases peaked in 2017 and has slightly decreased to 2.6 in recent two years (Figure 2).

The majority of the HIV reports in 2019 were male (84.8%), Chinese (74.2%) and diagnosed at the age between 20 and 49 (75.0%). The male-to-female ratio was 5.6 in 2019, which was the same as in 2018 but lower than 6.7 in 2017.

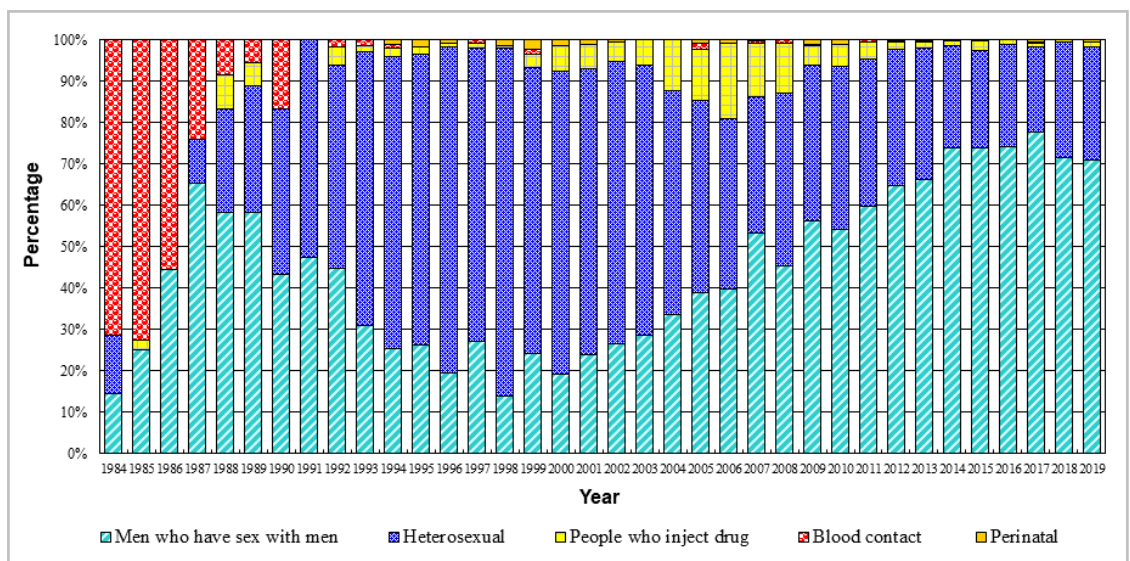


Figure 2 - Route of transmission, excluding unknown route (1984 to 2019).

There were 128 cases of heterosexual transmission in 2019, which accounted for 22.7% of newly reported cases and which has remained stable in recent five years. Among them, 68 were male and 60 were female. The male-to-female ratio ranged from 0.9 to 1.23 in the past few years.

Chinese ethnicity accounted for 70.6% of heterosexual male cases and 51.7% of heterosexual female cases. The median ages were 46 and 40.5 respectively, which were older than their MSM counterpart of 33. Majority of MSM cases were diagnosed HIV positive in the age range of 20-29 years old (Figure 3) while heterosexual cases aged 40 to 49 and 30 to 39 were most commonly reported in heterosexual male and female cases respectively.

In 2019, over half (59.8%) of the reported HIV cases were assessed to have acquired the virus locally, 10.1% in Mainland China and 8.1% in other places respectively. Around one-fifth (21.9%) had unknown place of infection due to inadequate information. When comparing heterosexual men and MSM, a higher proportion of MSM were infected locally (79.2%) than heterosexual men (50.0%). In contrast, more heterosexual male cases (38.2%) and heterosexual female cases (28.3%) were infected outside Hong Kong (in Mainland China or other places) as compared to only 16.4% among MSM. This suggested that non-local infections had an impact on the HIV transmission among heterosexual population in particular.

In 2019, the three commonest sources of HIV notification were public hospitals/clinics (43.5%), DH's Social Hygiene Clinic (16.6%) and DH's AIDS unit (16.5%). The proportion of HIV cases reported from AIDS service organisations (i.e. non-governmental organisations, NGOs) decreased slightly from 12.7% (79 cases) in 2018 to 12.4% (70 cases) in 2019. For DH's AIDS Unit, it decreased from 11.5% (72 cases) in 2018 to 10.6% (60 cases) in 2019.

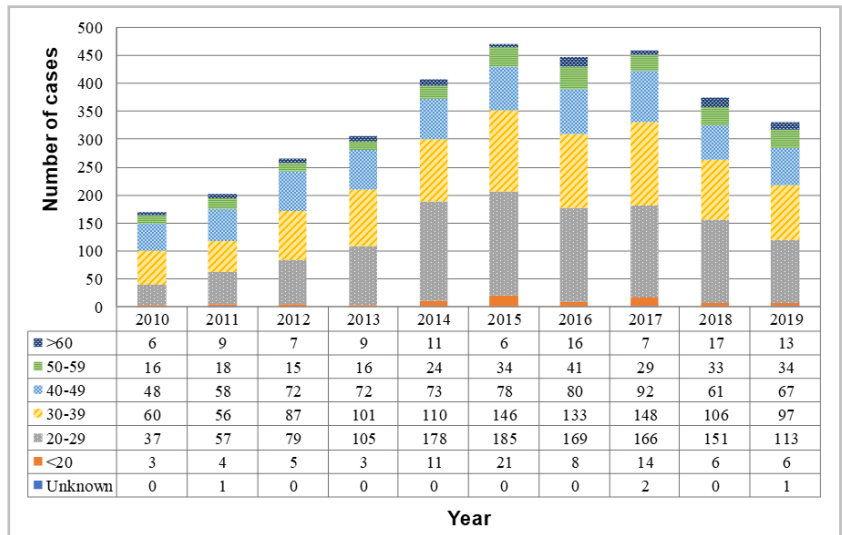


Figure 3 - Age breakdown of HIV-infected MSM cases (2010 to 2019).

Since the introduction of highly active antiretroviral therapy (HAART) in Hong Kong in 1997, the percentage of HIV cases who had progressed to AIDS has decreased. In early 1990s, around 35% of reported cases had progressed to AIDS. This percentage dropped to around 17% in 2010s. A total of 122 AIDS cases were reported in 2019, bringing the cumulative total to 2 118 AIDS cases. As compared to previous years, it was the second highest number of yearly AIDS cases recorded since 1985. The two most common AIDS defining illnesses in Hong Kong continued to be *Pneumocystis pneumonia* and tuberculosis, accounting for 74.6% of all new AIDS reports in 2019.

Overall, MSM cases have remained at a high level and dominated new HIV diagnoses but their number has decreased in recent few quarters when compared to the peak in 2015-2017 (Figure 4). Nevertheless, the concentrated epidemic among young MSM warrants our sustained attention. On the other hand, the HIV situation of heterosexual population and injecting drug users remained relatively stable in the past decade. The number of AIDS cases was shown to be in a slowly rising trend since 2009, albeit a slight drop in 2017. Among them, MSM cases rose sharply, from 31 cases in 2009 to 72 in 2019, while heterosexual cases also rose from about 30 more cases in early 2010s to 43 in 2019. It is speculated that the AIDS cases may remain at a relatively high level, partially attributed to the high level of HIV cases, MSM in particular, in the past decade. Promotion of HIV testing in recent years could have moderated this trend.

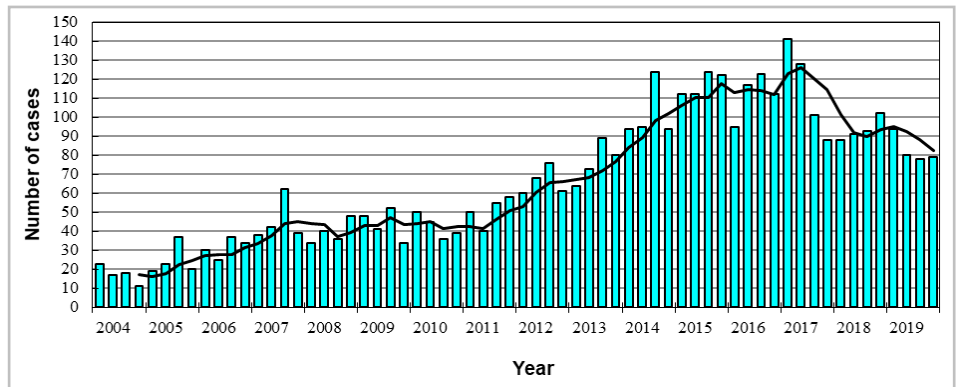


Figure 4 - Number of MSM cases (1984 to 2019, per quarter).

**HIV self-test study by DH**

Early diagnosis of HIV infection could facilitate access to and uptake of treatment and care, including HAART. Treatment is highly effective. In addition to reducing morbidity and mortality, it further prevents onward transmission to sexual partners. Anyone with the risk behaviour or interested in knowing his HIV status should get tested for HIV early, either by attending any HIV testing service or by performing HIV self-testing with a reliable, good-quality test kit.

By providing an opportunity for people to test themselves discreetly and conveniently, HIV self-testing could be an efficient avenue to reach those who are not currently reached by existing HIV voluntary counselling and testing (VCT) services. Self-testing refers to a process in which a user collects his/her own specimen, performs testing and interprets the result. Of note, HIV self-test only serves as a preliminary test and users of any self-test should seek further confirmation by conventional testing if positive.

DH is conducting a study of using oral fluid HIV self-tests for local MSM to expand testing coverage. The study period is from September 2019 to June 2020. The study examines the feasibility and acceptability of using a web-based system that allows ordering of HIV test kits and uploading of test results. Confirmatory testing will be provided to those who have self-tested positive. Medical care will also be provided for the infected patients. The public may visit the DH website (<https://www.21171069.gov.hk/en/index.html>) for related information.