



Department of Health and Social Services  
Valerie J. Davidson, Commissioner

3601 C Street, Suite 540  
Anchorage, AK 99503

<http://www.epi.Alaska.gov>

Division of Public Health  
Jay C. Butler, MD, Chief Medical Officer and  
Director

Local (907) 269-8000  
24 Hour Emergency 1-800-478-0084

Editors:  
Joe McLaughlin, MD, MPH  
Louisa Castrodale, DVM, MPH

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## HIV Update — Alaska, 2014

### Background

More than 1.2 million persons in the United States are living with human immunodeficiency virus (HIV) infection, and roughly 15% of those infected are unaware of their status. Approximately 50,000 new HIV cases are reported each year in the United States; the annual incidence rate has remained stable in recent years. Nationally, incidence rates are highest among gay, bi-sexual, and other men who have sex with men (MSM), and African Americans.<sup>1</sup> Both HIV and acquired immune deficiency syndrome (AIDS) are reportable conditions in Alaska. Persons at greatest risk for acquiring HIV in Alaska are MSM, high-risk heterosexuals, and injection drug users (IDU). We describe here a summary of HIV cases reported during 1982–2014, a summary of the epidemiology of HIV in 2014, and updated HIV testing recommendations. A more comprehensive data summary is available online (see: [www.epi.alaska.gov/hivstd/HIVSurveillanceReport2014.pdf](http://www.epi.alaska.gov/hivstd/HIVSurveillanceReport2014.pdf)).

### Methods

The Alaska Section of Epidemiology (SOE) receives reports from health care providers and laboratories for newly diagnosed cases of HIV and for persons living in Alaska who were previously diagnosed outside of Alaska. All persons newly diagnosed with HIV infection are offered an interview to determine risk factors and identify sexual and needle-sharing partners that need to be tested. Case and interview data are recorded in two SOE databases, the STD Management Information System (STD MIS) and the Enhanced HIV/AIDS Reporting System (eHARS). By national convention, statewide incidence rates are calculated based on the number of cases *diagnosed* in each respective state.

### Summary of HIV Cases

From January 1, 1982 through December 31, 2014, 1,616 cases of HIV were reported to SOE. Of the 1,616 reported cases:

- 1,086 (67%) also had a diagnosis of AIDS;
- 1,137 (70%) were initially diagnosed in Alaska; and
- 1,041 (64%) are not known to have died, 618 (59%) of whom are currently living in Alaska.

During 2014, 76 cases of HIV infection were reported to SOE, 42 of which were newly diagnosed in Alaska, yielding a statewide incidence rate of 5.7 cases per 100,000 persons. The remaining 34 reported cases were in persons with a previous out-of-state diagnosis. Of the 42 newly diagnosed cases:

- 6 (14%) also had a diagnosis of AIDS;
- 34 (81%) were in males, 19 (45%) were in whites, and 25 (60%) were in MSM;
- the median age was 31 years (range: 18–61).

Among newly diagnosed persons, their reasons for being tested included: symptoms of HIV or AIDS (12, 29%); partner notification for HIV/STD (11, 26%); patient request (9, 21%); STD screening (8, 19%); and other (2, 5%). Of the 12 persons who were diagnosed due to symptoms, acute HIV was identified in eight (67%). The most common symptoms of acute HIV infection were rash, fever, headache, malaise, and lymphadenopathy.

### Risk Factors for HIV

While HIV is primarily transmitted through unprotected sex and sharing of drug injection equipment, other factors contribute to high-risk behaviors and may facilitate transmission and acquisition of HIV. In 2014, persons with a new diagnosis of HIV in Alaska also reported the following risk factors: drug and alcohol abuse (19, 45%), a history of incarceration (19, 45%), co-infection with a bacterial sexually transmitted disease (12, 29%), and homelessness (8, 19%).

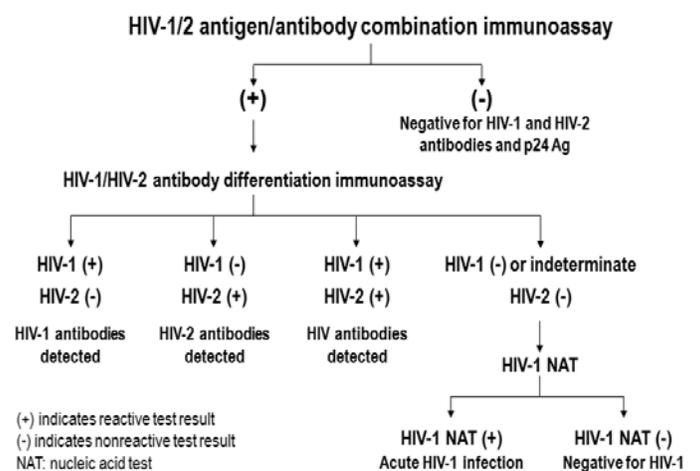
Among MSM, the most commonly reported venues to meet sexual partners were online and through mobile applications (64%; 16/25).

### Laboratory Testing for HIV

To facilitate early identification of HIV infection and improve outcomes for HIV-infected persons, the Centers for Disease Control and Prevention (CDC) recommends routine voluntary HIV screening for patients aged 13–64 years, and more frequent screening (at least annually) for those at high risk.<sup>2</sup>

In 2014, CDC released updated HIV testing recommendations to include newer, more sensitive assays.<sup>3</sup> The new algorithm, which has been implemented by the Alaska State Virology Laboratory and most large reference laboratories, allows for differentiation of HIV-1 and HIV-2 infection, and improves the ability to detect *acute* HIV infection (Figure). The algorithm starts out with initial HIV screening using an antigen/antibody combination immunoassay (Ag/Ab Combo), which detects HIV-1 and HIV-2 antibodies and the HIV-1 p24 antigen in as little as 16 days after initial infection. A positive result on the Ag/Ab Combo test is confirmed by an HIV-1/HIV-2 antibody differentiation assay. Note: the *Western Blot test is no longer recommended* for confirmation of a positive screening test and is not used by most laboratories.

Figure. CDC's Recommended HIV Testing Algorithm<sup>3</sup>



### Recommendations

1. Health care providers should routinely screen for HIV in patients aged 13–64 years in all health care settings; screen patients with HIV risk factors at least annually.
2. For symptomatic patients who test negative on the Ag/Ab Combo test, consider ordering an RNA polymerase chain reaction (PCR) test to diagnose *acute* HIV infection. The PCR test can detect HIV infection in as little as 11 days post-infection.
3. Include HIV testing as part of routine STD screening, and screen sexually active HIV-infected persons for STDs at genital and extragenital (e.g., oral, rectal) sites, as appropriate.
4. Providers must report confirmed and suspected cases of HIV and AIDS, including those with a previous diagnosis out-of-state, to SOE within 5 working days.

### References

1. CDC. HIV in the United States At A Glance. Available at: <http://www.cdc.gov/hiv/statistics/basics/ata glance.html#ref1>
2. CDC. Revised Recommendations for HIV Testing of Adults, Adolescents, and Pregnant Women in Health Care Settings. Available at: <http://stacks.cdc.gov/view/cdc/6763>
3. CDC and Association of Public Health Laboratories. Laboratory Testing for the Diagnosis of HIV Infection: Updated Recommendations. 2014. Available at <http://dx.doi.org/10.15620/cdc.23447>.