

## Washington State Department of Health

### Data Notes for HIV Dashboards

#### Data Sources

HIV data comes from the Enhanced HIV/AIDS Reporting System (eHARS) and Laboratory Tracker at the Washington State Department of Health. EHARS data are based on local disease investigations and comprehensive HIV/AIDS lab reporting, and are used to determine population sizes of people living with diagnosed HIV in Washington State (PLWDH). Laboratory data are required to be reported by all public and commercial diagnostic laboratories and are considered comprehensive. HIV-related laboratory results for all PLWDH are imported to eHARS on a monthly basis, and are used to assess HIV care metrics.

#### Rationale for inclusion:

HIV infection causes AIDS, which is responsible for a substantial amount of morbidity and mortality in Washington State. The Department of Health estimates that there are approximately 14,000 people living with HIV infection in Washington, of whom about 91% have been diagnosed and reported to the state's HIV surveillance registry. CDC recommends that individuals between the ages of 13 and 64 get tested for HIV at least once as part of routine health care. People with risk factors should get tested more frequently. Treatment for HIV infection is widely available, and should be initiated as early as possible following diagnosis.

#### Additional notes on the metrics presented:

##### Metric: Newly diagnosed cases of HIV infection

Unit of measure: Crude rate of new diagnoses per 100,000 residents

Years of reporting: 2010-2017

Citation:

Washington Tracking Network, Washington Department of Health. Web. New diagnoses of HIV infection. Data obtained from the Office of Infectious Disease Assessment Unit. Published 01 October 2017.

Information about the data:

New HIV diagnoses and rates presented here are based on aggregate HIV case information obtained from eHARS. The HIV cases described here resided in Washington at the time of initial HIV diagnosis, and meet CDC's case definition of HIV infection. HIV diagnosis rates have been calculated using population estimates obtained from the Washington State Office of Financial Management. Confidence intervals (depicted as "whiskers" in graphs) represent the amount of uncertainty which surrounds each rate estimate. We use 95% confidence intervals based on a Poisson distribution.

Caveats:

HIV infection often involves lengthy latency period during which the individual does not experience symptoms. As a result, many people living with HIV infection remain undiagnosed and/or unaware for long periods of time.

HIV incidence is a measure of HIV transmission within a population, or the rate at which new infections occur. Since HIV surveillance data are based on new diagnoses of HIV infection, surveillance data represent an approximation of HIV incidence. The completeness of HIV surveillance data can vary by local health jurisdiction. Some cases that appear to be new were actually diagnosed earlier, prior to living in Washington State.

Metric: Diagnosed prevalent cases of HIV infection

Unit of measure: Crude rate of diagnosed, prevalent HIV cases per 100,000 residents

Years of reporting: 2010-2017

Citation:

Washington Tracking Network, Washington Department of Health. Web. Diagnosed prevalent cases of HIV infection. Data obtained from the Office of Infectious Disease Assessment Unit. Published 12 December 2017.

Information about the data:

The HIV prevalence counts and rates presented here are based on aggregate HIV case information obtained from eHARS. The cases described here have been diagnosed, meet CDC's case definition of HIV infection, and resided in Washington during the time period(s) of interest. Not all cases resided in Washington when they were first diagnosed with HIV infection. HIV prevalence rates have been calculated using population estimates obtained from the Washington State Office of Financial Management. Confidence intervals (depicted as "whiskers" in graphs) represent the amount of uncertainty which surrounds each rate estimate. We use 95% confidence intervals based on a Poisson distribution.

Caveats:

HIV infection often involves lengthy latency period during which the individual does not experience symptoms. As a result, as many as 9 percent of people living with HIV infection remain undiagnosed and/or unaware for long periods of time. Since HIV surveillance systems rely on cases being diagnosed and reported to the health department, the prevalent cases described here likely under-represent the true number of people living with HIV at any given time period. The completeness of HIV surveillance data can vary by local health jurisdiction. The residential address associated with some cases might be out-of-date or incomplete.

Metric: Late diagnosis of HIV infection

Unit of measure: Percentage of new HIV cases that were diagnosed late in the course of their HIV illness

Citation:

Washington Tracking Network, Washington Department of Health. Web. Late HIV diagnoses. Data obtained from the Office of Infectious Disease Assessment Unit. Published March 2017.

Information about the data:

New HIV diagnoses, and specifically the percentage of those cases that are diagnosed late, is based on aggregate HIV case information obtained from eHARS. The HIV cases described here resided in Washington at the time of initial HIV diagnosis, and meet CDC's case definition of HIV infection. "Late HIV diagnoses" are those diagnosed

with both HIV infection and an AIDS (advanced stage HIV illness) within a 12-month period. Confidence intervals (depicted as “whiskers” in graphs) represent the amount of uncertainty which surrounds each late HIV percentage. We use 95% confidence intervals based on a normal (z) distribution.

Caveats:

HIV infection often involves a lengthy latency period during which the individual does not experience symptoms. As a result, many people living with HIV infection remain undiagnosed and/or unaware for long periods of time. HIV incidence is measure of HIV transmission within a population, or the rate at which new infections occur. The completeness of HIV surveillance data can vary by local health jurisdiction. Some cases that appear to be new were actually diagnosed earlier, prior to living in Washington State. The data needed to determine whether a new HIV case was diagnosed late can take additional time to collect; there is an additional 12-month follow-up period, and at least three months are needed to control for any reporting lag associated with each diagnostic event (HIV and AIDS).

Metric: Initial Linkage to HIV Medical Care

Unit of measure: Percentage of new HIV cases that were linked to HIV medical care within 30 days, based on laboratory evidence

Years of reporting: 2010-2017

Citation:

Washington Tracking Network, Washington Department of Health. Web. Initial linkage to HIV medical care. Data obtained from the Office of Infectious Disease Assessment Unit. Published March 2017.

Information about the data:

New HIV diagnoses, and specifically the percentage of those cases that are linked to care, is based on aggregate HIV case information obtained from eHARS. The HIV cases described here resided in Washington at the time of initial HIV diagnosis, and meet CDC’s case definition of HIV infection. Linkage to care is based on an HIV care-related laboratory result (either CD4 or viral load) reported within 30 days of the date of HIV diagnosis. Confidence intervals (depicted as “whiskers” in graphs) represent the amount of uncertainty which surrounds each late HIV percentage. We use 95% confidence intervals based on a normal (z) distribution.

Caveats:

HIV infection often involves lengthy latency period during which the individual does not experience symptoms. As a result, many people living with HIV infection remain undiagnosed and/or unaware for long periods of time. HIV incidence is measure of HIV transmission within a population, or the rate at which new infections occur. The completeness of HIV surveillance data can vary by local health jurisdiction. Some cases that appear to be new were actually diagnosed earlier, prior to living in Washington State. The laboratory data needed to determine whether a new HIV case was successfully linked to HIV medical care can take additional time to collect. The quality of HIV care can vary; some cases with an HIV care-related laboratory result might not have received optimal HIV medical care or initiated HIV treatment.

## Metric: Viral Load Suppression among People Diagnosed and Living with HIV Infection

Unit of measure: Percentage of prevalent HIV cases with a suppressed viral load, based on laboratory evidence

Years of reporting: 2010-2017

### Citation:

Washington Tracking Network, Washington Department of Health. Web. Viral load suppression among people diagnosed and living with HIV infection. Data obtained from the Office of Infectious Disease Assessment Unit. Published March 2017.

### Information about the data:

The HIV prevalence counts, and specifically the percentage cases with a suppressed viral load, is based on aggregate HIV case information obtained from eHARS. The cases described here have been diagnosed and meet CDC's case definition of HIV infection, and resided in Washington during the time period of interest. Not all cases resided in Washington when they were first diagnosed with HIV infection. Within the 12-month time period of interest, viral load suppression is based on the most recently reported viral load result being  $\leq 200$  copies per milliliter plasma. Confidence intervals (depicted as "whiskers" in graphs) represent the amount of uncertainty which surrounds each percentage. We use 95% confidence intervals based on a normal (z) distribution.

### Caveats:

HIV infection often involves lengthy latency period during which the individual does not experience symptoms. As a result, many people living with HIV infection remain undiagnosed and/or unaware for long periods of time. The completeness of HIV surveillance data can vary by local health jurisdiction. Some cases that appear to be prevalent within a given time period might be deceased or have moved out of state. The laboratory data needed to determine whether a prevalent HIV case has achieved viral load suppression can take additional time to collect, and is not 100% complete.

### **Not Reliable annotation and small numbers suppression**

All rates with a relative standard error (RSE) of 25% or higher are annotated as not reliable (NR). All non-zero counts less than 10 are suppressed, and rates or proportions derived from those suppressed counts are also suppressed. An exception to the standard is annual statewide, county or accountable communities of health counts, or rates or proportions based on 1-9 counts, with no further stratification, are not suppressed.

### Additional information:

Surveillance reports and other information about the HIV epidemic in Washington are available here:

<https://www.doh.wa.gov/dataandstatisticalreports/diseasesandchronicconditions/hivaidsdata>

National data: <https://www.cdc.gov/hiv/statistics/overview/index.html>