

### A. GENERAL QUESTIONS ABOUT THE HIV CARE CONTINUUM AND THE CCD

#### 1. What is the HIV Care Continuum?

The HIV Care Continuum is a coordinated delivery system, encompassing a comprehensive range of health and social services that meet the needs of people living with HIV at all stages of illness.<sup>1,2</sup>

#### 2. Why were linkage to care, viral load suppression, and viral load below transmission threshold selected as areas of focus for the CCDs?

Linkage to care, viral load suppression, and viral load transmission threshold are critical components of the HIV Care Continuum. Linkage to care is the entry point within the care continuum. Viral load suppression – when sustained – results in less morbidity and mortality, prevents sexual transmission (Undetectable=Untransmittable [U=U]) and reduces transmission to needle-sharing partners. Viral load below transmission threshold reduces the likelihood of HIV transmission to partners, and is informative about local progress towards viral suppression. These key indicators can be estimated using comprehensive HIV-related laboratory reporting to the National HIV Surveillance System (<https://www.cdc.gov/hiv/statistics/index.html>). These data track progress towards the goals set forth in the National HIV/AIDS Strategy.<sup>2</sup>

#### 3. What are the requirements for health care providers with regard to offering HIV testing and linking patients to care?

In New York State, anyone 13 years and older must be offered an HIV test when receiving primary care services, and in inpatient, outpatient, and emergency department hospital settings. HIV testing must be offered by physicians, physician assistants, nurse practitioners, or midwives who provide primary care, regardless of setting. At a minimum, providers must verbally advise patients that an HIV test will be performed. Written consent is not required. HIV test providers must arrange, with the consent of the patient, an appointment for medical care for those who test positive. For more information, see [“HIV Testing, Reporting and Confidentiality in New York State 2017-18 Update: Fact Sheet and Frequently Asked Questions.”](#)

#### 4. What HIV-related information is reported to the New York City Department of Health and Mental Hygiene (NYC DOHMH)?

All previously unreported diagnoses of HIV and AIDS are reportable to NYC DOHMH per New York State law. Clinical laboratories must report all positive confirmatory test results, viral load test results (detectable and undetectable), CD4 test results, and viral nucleotide sequence results. All HIV surveillance information reported to NYC DOHMH is stored in the New York City HIV Surveillance Registry (the Registry). The Registry does not currently include treatment status information (e.g., whether a patient is taking antiretroviral therapy or not) or HIV care visit information. HIV-related laboratory tests reported to NYC DOHMH are used as proxies for HIV care visits (see section B6 below).

**5. Why are the CCDs being shared?**

NYC DOHMH believes it is important for facilities providing medical care to HIV-infected New York City residents to know their performance relative to national and local goals for treating people living with HIV. This information may be useful to facilities seeking to understand their contribution to achieving the goals of the National HIV/AIDS Strategy and/or as quality indicators to track program efficacy in caring for people living with HIV.

**6. When did the first CCD release occur?**

The first release occurred in December 2012.

**7. How often are CCDs released?**

Individual CCD reports are sent biannually to facilities, once in June and once in December. Annually, starting in December 2015, NYC DOHMH publicly releases viral suppression data from the CCDs on its [CCD webpage](#).

**8. How are facilities selected to receive CCDs?**

In the initial 2012 release of the CCDs, NYC DOHMH selected 21 facilities that were among the highest-volume HIV care facilities in New York City or part of New York City Health + Hospitals (H + H). These 21 facilities collectively cared for a large proportion of persons receiving care for HIV in the city. For the June 2014 release, NYC DOHMH expanded criteria to include HIV testing and care providers in New York City that either: a) reported  $\geq 10$  newly diagnosed patients and/or b) had  $\geq 150$  patients “in care” based on Registry data in a designated 12-month time period. Once a site qualifies for receiving a CCD based on these criteria, it will thereafter receive biannual CCDs.

**9. To whom is the CCD being sent at each institution?**

NYC DOHMH sends CCDs biannually to persons responsible for leading HIV care and treatment efforts at each facility, such as the Medical Director of an HIV clinic or the HIV administrator, as well as other facility leaders, such as the Chief Medical Officer or Chief Executive Officer. If there are any additional key individuals that should receive your facility’s CCD or there are changes in leadership, please email us at [HIVCCD@health.nyc.gov](mailto:HIVCCD@health.nyc.gov).

**10. How will the CCD be used by the DOHMH? What will happen if a facility does not meet these goals?**

The CCD is meant to help and encourage facilities to meet national and local goals for HIV care and treatment. It is up to facilities to decide how they wish to use these data.

There are many facility-, individual-, and structural-level drivers of viral load suppression, which contribute to variability in suppression rates across and within sites (e.g., facility type and resource level, substance use, housing status, mental health). Data on these drivers may be unavailable to surveillance and therefore not reflected in the CCDs. While the viral suppression goal is citywide and applies to all CCD sites, it is understood that achievement of this goal will take some sites longer than others.

**11. Does the DOHMH have any plans to use these facility-specific data as a basis for direct funding decisions?**

No.

**B. SPECIFIC QUESTIONS ABOUT THE HIV CARE CONTINUUM DASHBOARD**

**1. How are the indicators for linkage to care, viral load suppression, and viral load below transmission threshold calculated?**

NYC DOHMH uses the following definitions:

- **Timely linkage to care:** All persons diagnosed with HIV infection at the facility in the given 12-month time period according to the Registry are included in the denominator. Persons who timely linked to care at “your facility” (including affiliated sites), as well as persons who timely linked at any “other facility” in New York City are included in the numerator. Facility-level performance on timely linkage to care is presented in two ways in the CCDs: 1) a newly-diagnosed person is considered to have linked timely to care if they have any HIV viral load, CD4, or HIV genotype test reported to NYC DOHMH within one month (30 days) of HIV diagnosis; and 2) a newly-diagnosed person is considered to have linked timely to care if they have any HIV viral load, CD4, or HIV genotype test reported to NYC DOHMH within three months (91 days) of HIV diagnosis. Data on timely linkage to care are included only in CCDs for sites that reported  $\geq 10$  newly diagnosed patients to the Registry in the specified 12-month time period.
- **Viral load suppression:** All HIV-diagnosed persons meeting the Human Resources and Services Administration (HRSA)’s definition of continuous care are included in the denominator.<sup>3</sup> This definition requires at least two HIV lab reports (CD4 or VL) drawn at least 90 days apart and reported to the Registry within the given 12-month time period. Persons are considered to be in continuous care at a specific facility if the two or more labs that defined this status were ordered by providers at that facility. Viral suppression is the proportion of persons whose most recent quantitative HIV RNA level was  $< 200$  copies/mL among all persons in continuous care at that facility during the given 12-month time period. Similarly, viral load below transmission threshold is the proportion of persons whose most recent quantitative HIV RNA level was  $< 1,500$  copies/mL among all persons in continuous care at that facility during the given 12-month time period. Sites with  $\geq 150$  patients “in care” per Registry data in the initial 12-month time period were selected to receive a viral suppression CCD. Once a site qualifies for receiving a viral suppression CCD based on this criterion, it will thereafter receive the viral suppression CCD biannually.

As of 2015, a methodological change has been made in the calculation of viral load suppression. Viral suppression estimates for the prior year have been adjusted based on the new methodology to enable comparisons across years.

2. **Why are data being used in the time period reported on the graphs?**

This is the latest 12-month time period for which data reporting to NYC DOHMH is complete.

3. **What is the basis for the goals in the CCDs?**

The 30-day timely linkage to care goal of 85% aligns with the linkage goal in the 2020 National HIV/AIDS Strategy.<sup>2</sup> The viral suppression goal of 90% is based on published literature and local HIV surveillance data.

4. **Why do the numbers of persons diagnosed and in continuous care used for the indicator proportions in the CCDs differ from our clinic estimates?**

CCD indicators are calculated using Registry data, which come from multiple sources, including provider reports, laboratory reporting, and matches to local and national death registries. It is not unusual for clinic estimates and estimates based on surveillance data to differ because of these multiple sources of case information.

- **Timely linkage to care:** The denominator is based only on those persons whose HIV diagnosis was newly reported to the Registry in the given 12-month time period. Hence, this graph does not represent all persons with positive test results at your facility during this period.
- **Viral suppression and viral load below transmission threshold among patients in care:** The denominator for your facility includes all persons with at least two CD4 or viral load tests from your facility (including care affiliates) that were at least three months apart in the given 12-month time period and were reported to the Registry. It is not unusual for there to be a difference in the size of the patient census when comparing facility information to Registry data, because care status assessments using Registry data rely upon reportable laboratory events only. Please note that the denominator for the citywide indicator includes patients who have two labs 90 days apart within the given 12-month time period, without regard to changes in the ordering facility that may occur during the year.

5. **Why does the *Timely Linkage to Care* figure show the patients who linked to care “your facility” and “other facility” for the facility-specific indicator but not for the New York City indicator?**

This indicator provides a population-level view of timely linkage to HIV care in New York City. This indicator presents timely linkage to care among all persons newly diagnosed with HIV in New York City in the given time 12-month period, regardless of the facility where they were diagnosed or linked to care. For individual facilities, NYC DOHMH provides the percentage of newly diagnosed patients who were diagnosed at your facility and linked to care within one or three months of diagnosis at “your facility” (including care affiliates) as well as at any “other facility” in New York City. In those circumstances in which there are no patients who were diagnosed at a specific CCD facility and linked at an “other facility” in New York City, this label will not be displayed on that facility’s CCD.

**6. Has the use of CD4/VL/HIV genotype reports as a proxy measure been validated?**

CD4, VL, and HIV genotype reports received by public health surveillance registries are widely used by local and national health agencies as proxy measures for the receipt of HIV-related medical care, and estimates of care engagement based on these data are the subject of numerous peer-reviewed publications. They are used by the Centers for Disease Control and Prevention to measure care status and track national progress towards the goals in the National HIV/AIDS Strategy. <sup>2</sup>

**7. Why was VL<200 chosen as the marker of suppression?**

The Centers for Disease Control and Prevention define viral suppression as <200 copies/mL. <sup>4,5</sup>

**8. Why was VL<1,500 chosen as the marker of transmission threshold?**

Several studies showed that an HIV viral load below 1,500 copies/mL lowers the risk of transmitting HIV to sex and needle-sharing partners. <sup>6-9</sup>

**C. RESOURCES**

**1. For more assistance or information regarding the CCD:**

- If you would like to contact us with questions or concerns about the HIV CCDs, please, email us at [HIVCCD@health.nyc.gov](mailto:HIVCCD@health.nyc.gov).
- To see citywide data on care and clinical status of persons living with HIV in New York City based on HIV surveillance data, please visit: <http://www1.nyc.gov/site/doh/data/data-sets/aids-hiv-epidemiology-and-field-services.page>
- Our surveillance unit is also happy to work with you to determine if assistance with reporting at your facility is needed. Please email us at [HIVCCD@health.nyc.gov](mailto:HIVCCD@health.nyc.gov), or call 212-442-3388.
- For information on the many programs which may be of benefit to you including HIV testing, partner services, free condom distribution, syringe services, and other resources, please visit: <http://www1.nyc.gov/site/doh/health/health-topics/aids-hiv.page>.

**2. Additional websites:**

- NYC DOHMH's HIV Care Status Reports web application: Patient-specific data regarding patients who are out of care can now be shared with NYC HIV care providers. For more information: <https://www1.nyc.gov/site/doh/health/health-topics/aids-hiv-care-status-reports-system.page>
- The National HIV/AIDS Strategy guideline document can be found here: <http://aidsinfo.nih.gov/contentfiles/lvguidelines/adultandadolescentgl.pdf>
  - ARV initiation is addressed on page E-1

- United States Department of Health and Human Services “Guidelines for the Use of Antiretroviral Agents in Adults and Adolescents Living with HIV” can be found here: <http://aidsinfo.nih.gov/guidelines/>
- The New York State Department of Health AIDS Institute’s “[HIV Testing, Reporting and Confidentiality in New York State 2017-18 Update: Fact Sheet and Frequently Asked Questions](https://www.health.ny.gov/diseases/aids/providers/testing/docs/testing_fact_sheet.pdf)” can be found here: [https://www.health.ny.gov/diseases/aids/providers/testing/docs/testing\\_fact\\_sheet.pdf](https://www.health.ny.gov/diseases/aids/providers/testing/docs/testing_fact_sheet.pdf)

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## D. REFERENCES

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<sup>5</sup> CDC. Using Viral Load Data to Monitor HIV Burden and Treatment Outcomes in the United States. February 2012. [https://www.princeton.edu/cbli/student-projects-1/viral\\_load.pdf](https://www.princeton.edu/cbli/student-projects-1/viral_load.pdf). Accessed May 22, 2018.

<sup>6</sup> Quinn TC, Wawer MJ, Sewankambo N, Serwadda D, et al. Viral load and heterosexual transmission of human immunodeficiency virus type 1. Rakai Project Study Group. *N Engl J Med*. 2000;342:921-929.

<sup>7</sup> Mark G, Gardner LI, Rose CE, Zinski A, et al. Time above 1500 copies/mL: a viral-load measure for assessing transmission risk of HIV-positive patients in care. *AIDS*. 2015;29(8):947-54.

<sup>8</sup> Attia S, Egger M, Muller M, Zwahlen M, Low N. Sexual transmission of HIV according to viral load and antiretroviral therapy: systematic review and meta-analysis. *AIDS*. 2009; 23:1397-1404.

<sup>9</sup> Tovanabutra S, Robison V, Wongtrakul J, Sennum S, Suriyanon V, Kingkeow D, et al. Male viral load and Heterosexual transmission of HIV-1 subtype E in Northern Thailand. *J Acquir Immune Defic Syndr*. 2002; 29:275-283.