



The HIV Continuum of Care Over Time: Alameda County

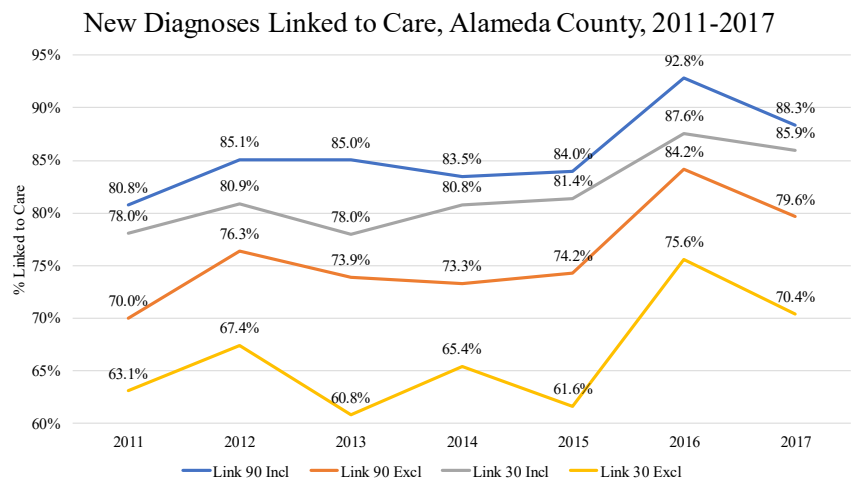
The HIV Care Continuum is a series of metrics used to describe engagement with HIV care among those newly diagnosed with HIV as well as all people living with HIV (PLHIV). With the emergence of national initiatives such as Ending the HIV Epidemic (EHE)¹, these metrics have become key indicators for local, state, and national agencies focused on HIV prevention efforts in recent years. Although the methods and measures used to characterize the care continuum may vary, linkage to care, retention in care, and viral suppression are the key measures consistently included.

The HIV Care Continuum in addition to providing a set of common metrics for engagement in HIV services, is also a reflection of where along the continuum HIV transmissions are occurring. A recent study showed that persons who are diagnosed with HIV but not retained in care are responsible for 61.3% of new transmissions. Those PLHIV that are virally suppressed account for only 2.5% of transmissions and have a reduction in transmission rate of 94% compared to those who are living with HIV but undiagnosed². Therefore, advancing people further along the care continuum can be beneficial for both HIV prevention and HIV care outcomes.

Alameda County Public Health Department’s annual report about the HIV epidemic describes the continuum of care overall and by select demographics in Alameda County to summarize collective efforts of stakeholders and organizations in confronting the spread of HIV. However, a longitudinal perspective of the care continuum, i.e., trends in these key metrics over several years can illustrate progress toward meeting HIV prevention goals.

Linkage to Care^a

Linkage to care refers to receipt of care after an HIV diagnosis. Linkage within 90 days or within 30 days are the most commonly used measures. In Alameda County among newly diagnosed cases between 2011 and 2017, the proportion linked to care within 90 days (including lab results at the date of diagnosis) has steadily improved from 80.8% to 88.3%. Linkage rates (excluding labs at date of diagnosis) have improved from 70.0% to 79.6% over the same period of time.



Linkage to care within 30 days (including labs done at the date of diagnosis) has increased from 78.0% to 85.9% between 2011 and 2017 and from 63.1% to 70.4% (excluding labs done at the date of diagnosis) in the same period of time. Nationally in 2017, linkage within 30 days was 77.8%³. The National HIV/AIDS Strategy (NHAS) 2020 had a goal of increasing the proportion of persons newly diagnosed with HIV who are linked to care within one month to 85%. Alameda County has met the NHAS goal for two years since 2016.

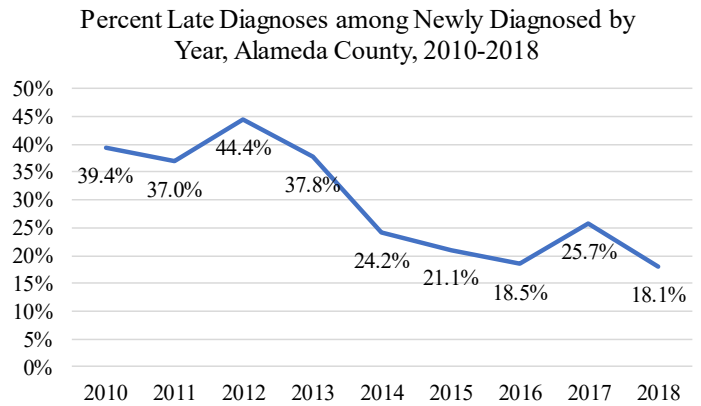


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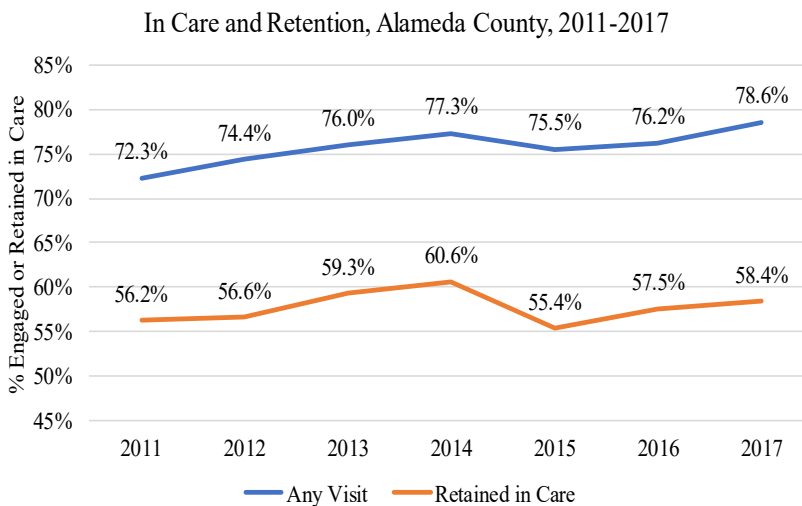
Late Diagnosis

Diagnosing HIV at an early stage is key to reducing the risk of transmission and better health outcomes of those diagnosed. A diagnosis is considered “late” if the patient is diagnosed initially with or progresses to stage 3 infection—or AIDS—within one year of the initial diagnosis. This is an indication that the patient has been living with HIV undiagnosed for an extended period.

In Alameda County, late diagnoses have declined from 39.4% in 2010 to 18.1% in 2018. This large decrease suggests the impact of local prevention programs such as expanded testing is reaching key populations and identifying new cases of HIV closer to the date of infection. Fewer undiagnosed cases should lead to fewer transmissions and better health outcomes for those diagnosed with HIV.



In Care and Retention in Care



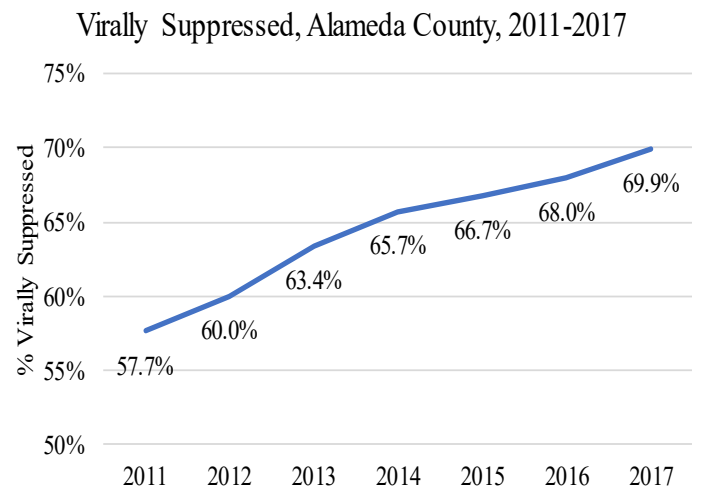
Retention in care is a measure of engagement in care among all PLHIV living in Alameda County for the entire year. It is often based on reported CD4 and viral load tests since medical provider visits are not reported to the state Office of AIDS. A person is considered retained in care if they had two or more labs at least 90 days apart during a calendar year.

In Alameda County between 2011 and 2017, retention in care has remained level with a high of 60.6% of PLHIV in 2014 and a low of 55.4% in 2015. Another measure of engagement is having at least one lab in a year as evidence of being in care. In 2011, 72.3% of PLHIV were in care whereas in 2017 the proportion increased to 78.6%.

Viral Suppression^b

The goal of treatment is to achieve viral suppression. Viral suppression is important for PLHIV to stay healthy, live longer, and prevent transmission of HIV. The NHAS 2020 goal is to increase the proportion of PLHIV whose virus is effectively suppressed to 80%.

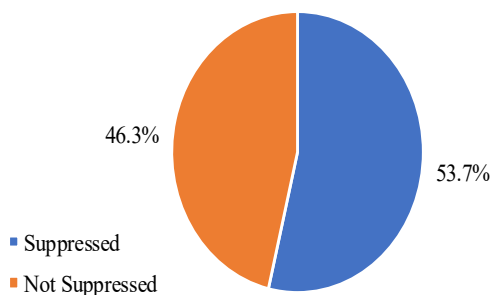
Viral suppression in Alameda County has been steadily increasing. The proportion of PLHIV who were virally suppressed^c increased from 57.7% in 2011 to 69.9% in 2017, suggesting that increased proportions of PLHIV are getting and staying on HIV treatment. Nationally, viral suppression in 2017 was at 63.1%³. Alameda County has not reached the NHAS goal for viral suppression, but in 2017, had higher rates of viral suppression than the nation.



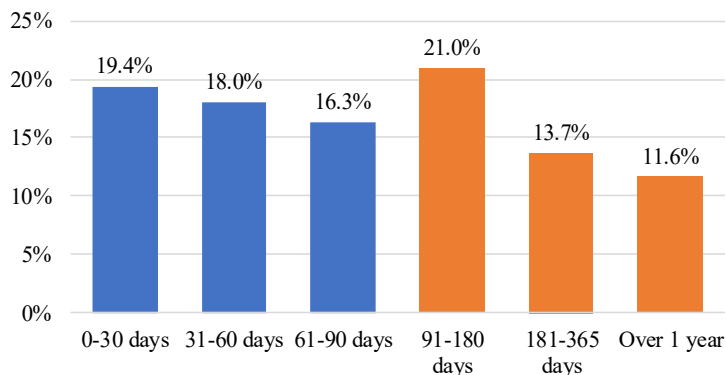
Sustained viral suppression over time is important to reduce HIV transmission in a community. For the seven years from 2010 to 2016, 36.9% of PLHIV living in Alameda County for that entire time period stayed virally suppressed. However, 19.2% did not achieve viral suppression at all during this period of time.

In recent years, some HIV researchers have advocated for using time between diagnosis and achieving viral suppression as a metric to monitor HIV. The New York City Department of Health and Mental Hygiene, in a recently released report found that 53% of their new diagnoses achieved viral suppression within 90 days in 2018⁴. Among newly diagnosed cases in Alameda County between 2015 and 2017, 53.7% achieved viral suppression within 90 days of diagnosis. Rapid suppression helps prevent new transmissions.

Viral Suppression within 90 Days Among Newly Diagnosed, Alameda County, 2015-2017



Days to Virally Suppressed Among Newly Diagnosed 2015-2017



In Alameda County, 88.4% of newly diagnosed cases with at least one viral load result were virally suppressed within one year of diagnosis.

Technical Notes

- Reporting HIV laboratory results (including CD4, viral load, and diagnostic tests) to county health departments is mandatory. Having a CD4 or viral load test is widely used as evidence of a care visit. A person is considered linked to care when a CD4 or viral load test result is reported following initial diagnosis. We present linkage metrics excluding lab tests conducted on the same day as the HIV diagnosis, as well as including these same-day labs.
- Viral suppression is defined as a viral load under 200 copies per mL. An undetectable viral load is much lower and dependent on the threshold of the viral load test. All undetectable viral loads are suppressed, but not all suppressed viral loads are undetectable.
- The percentage of newly diagnosed to achieve viral suppression within 90 days of diagnosis excludes cases where individuals did not receive a viral load test; for analysis presented in the annual report those individuals are assumed to be unsuppressed.

References

- Centers for Disease Control and Prevention. “Ending the HIV Epidemic: A Plan for America.” <https://www.cdc.gov/endhiv/index.html>. Accessed March 18, 2020.
- Skarbinski, Jacek; Rosenber, Eli; et al. Human Immunodeficiency Virus Transmission at Each Step of the Care Continuum in the United States. *JAMA Intern Med.* 2015;175(4):588-596.
- Centers for Disease Control and Prevention. HIV Surveillance Data Tables (early release): Core indicators for monitoring the Ending the HIV Epidemic initiative, data reported through December 2019. <http://www.cdc.gov/hiv/library/reports/hiv-surveillance.html>. Published March 2020. Accessed March 20, 2020.
- New York City Department of Health and Mental Hygiene. Care and Clinical Status of People Newly Diagnosed with HIV and People Living with HIV in New York City, 2018. December 2019. <https://www1.nyc.gov/assets/doh/downloads/pdf/dires/hiv-related-medical-care.pdf>.