The Continuum of HIV Care — California, 2020

The California Department of Public Health, Center for Infectious Diseases, Office of AIDS has developed continuums of HIV care for persons newly diagnosed with HIV and persons living with HIV in California. The Continuum of HIV Care is a model that outlines the stages of HIV medical care for people living with HIV, from initial diagnosis to viral suppression. The continuum shows the proportion of people living with HIV who are engaged in each stage of care. For persons newly diagnosed with HIV, the continuums include persons who were diagnosed with HIV during the specified year, and report on stages of care in terms of length of time from diagnosis.

For new diagnoses, this report includes all persons diagnosed with HIV infection during 2020 who were residing in California at the time of diagnosis. Persons who are newly diagnosed may or may not have been recently infected with HIV. For living cases, this report includes all persons diagnosed and living with HIV infection who were alive as of December 31, 2020 and living in California, and an estimate of the number of persons who are living, but not yet diagnosed with HIV. The data were extracted from the California HIV Surveillance System 12 months after the end of the calendar year to allow for delays in case and laboratory reporting.

Highlights from the Continuum of HIV Care — California, 2020

- Of the 3,965 Californians newly diagnosed with HIV during 2020, 84 percent were linked to care within 1 month of diagnosis; 92 percent were linked within 6 months; and 94 percent were linked within 12 months. Sixty-six percent were virally suppressed within 6 months of diagnosis while 76 percent were virally suppressed within 12 months of diagnosis.
    - Persons aged ≥ 65 years achieved 69 percent viral suppression, the highest among all age groups. For the remaining age groups, viral suppression within 6 months of diagnosis ranged from 33 percent to 68 percent.
    - Cisgender men were more likely to be virally suppressed within 6 months of diagnosis than cisgender women (67 percent versus 61 percent). Trans women had lower viral suppression (65 percent) than trans men, who achieved the highest viral suppression (75 percent) among all gender groups.
    - Asians were most likely to be virally suppressed within 6 months (76 percent) followed by Native Hawaiian/Pacific Islanders (75 percent), American Indian/Alaska Natives (73 percent), Latinx (68 percent), and Whites (65 percent). Black/African Americans and multiracial persons had the lowest viral suppression (59 percent and 55 percent, respectively) compared to all other groups.
    - Transmission by high-risk heterosexual contact (HRH) had the highest viral suppression within 6 months of diagnosis (76 percent), followed by male-to-male sexual contact (MMSC) (71 percent), transgender sexual contact (TGSC) (67 percent), heterosexual contact (Non-HRH) (62 percent), and MMSCIDU (60 percent). Transmission by injection

drug use (IDU) and perinatal had the lowest viral suppression (47 percent and 40 percent, respectively).

- Of the estimated 159,115 persons living with HIV in California during 2020, about 88 percent (139,703 persons) had been diagnosed, and 55 percent (88,041 persons) achieved viral suppression. One of the goals of *Ending the HIV Epidemic: A Plan for America (EHE)* initiative is to increase the percentage of people who have knowledge of their status to at least 95% by 2025.

- Among the 139,703 persons living with <u>diagnosed</u> HIV in California during 2020, 72 percent (100,357 persons) were in HIV care and 63 percent (88,041 persons) achieved viral suppression.

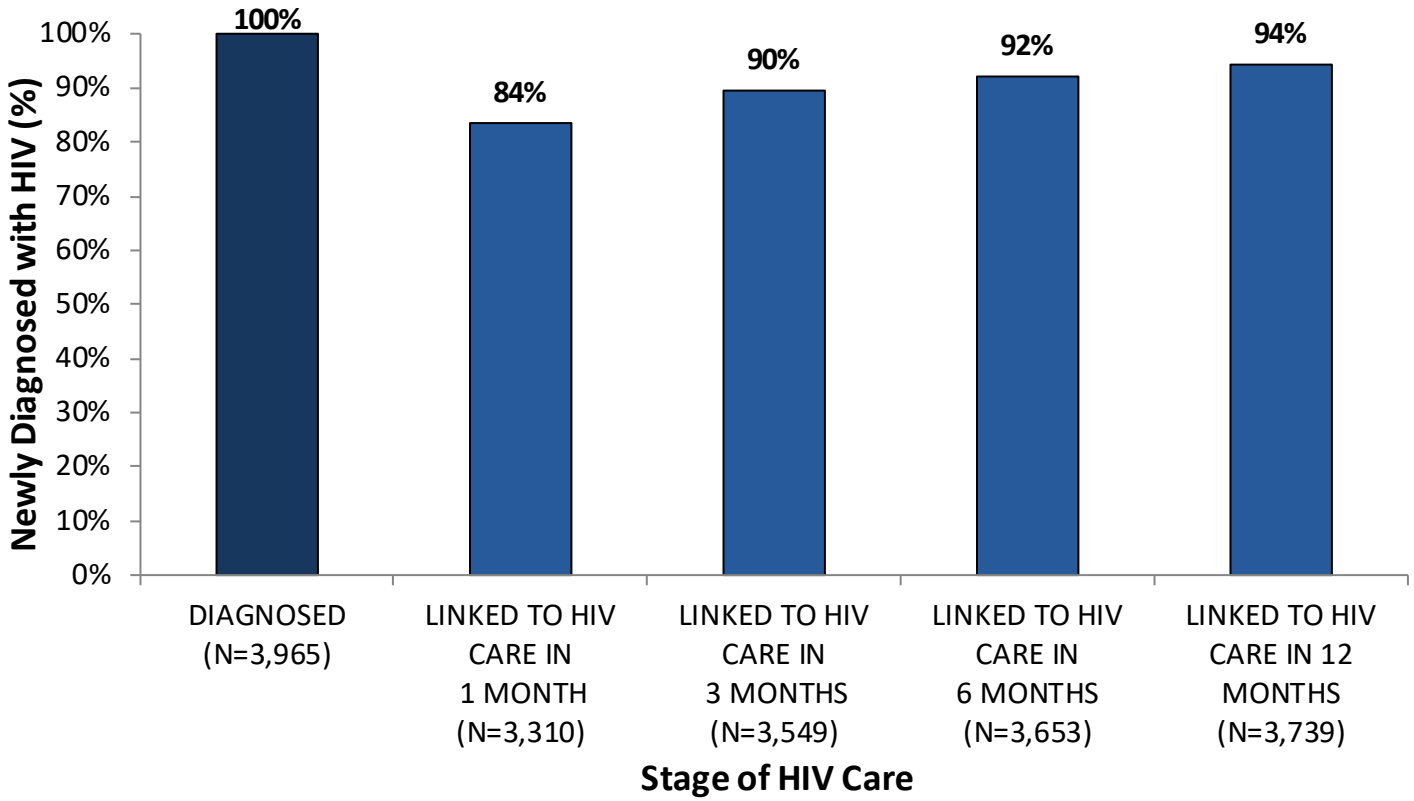
    - For persons over 12, viral suppression ranged from 60 percent to 67 percent. The highest viral suppression (76 percent) was achieved by persons 0-12 years old and the lowest viral suppression was among persons 25–44 years old (60 percent).

    - Cisgender men were more likely to be virally suppressed than cisgender women (63 percent versus 61 percent), and trans men were more likely to be virally suppressed than trans women (67 percent versus 60 percent, respectively).

    - Native Hawaiian/Pacific Islanders and Latinx were less likely to be virally suppressed (59 percent and 62 percent, respectively) compared to Whites, Asians, and multiracial persons (67 percent, 68 percent, and 70 percent, respectively). American Indian/Alaska Natives and Black/African Americans had the lowest viral suppression (56 percent) compared to all other groups.

    - Infection attributed to MMSC had the highest levels of viral suppression (66 percent) and made up the largest transmission category among HIV infected persons (92,726). Transmission by IDU had the lowest levels of viral suppression (51 percent) followed by non-HRH (58 percent), MMSC and IDU (60 percent), TGSC (61 percent), HRH (63 percent), and perinatal (63 percent).

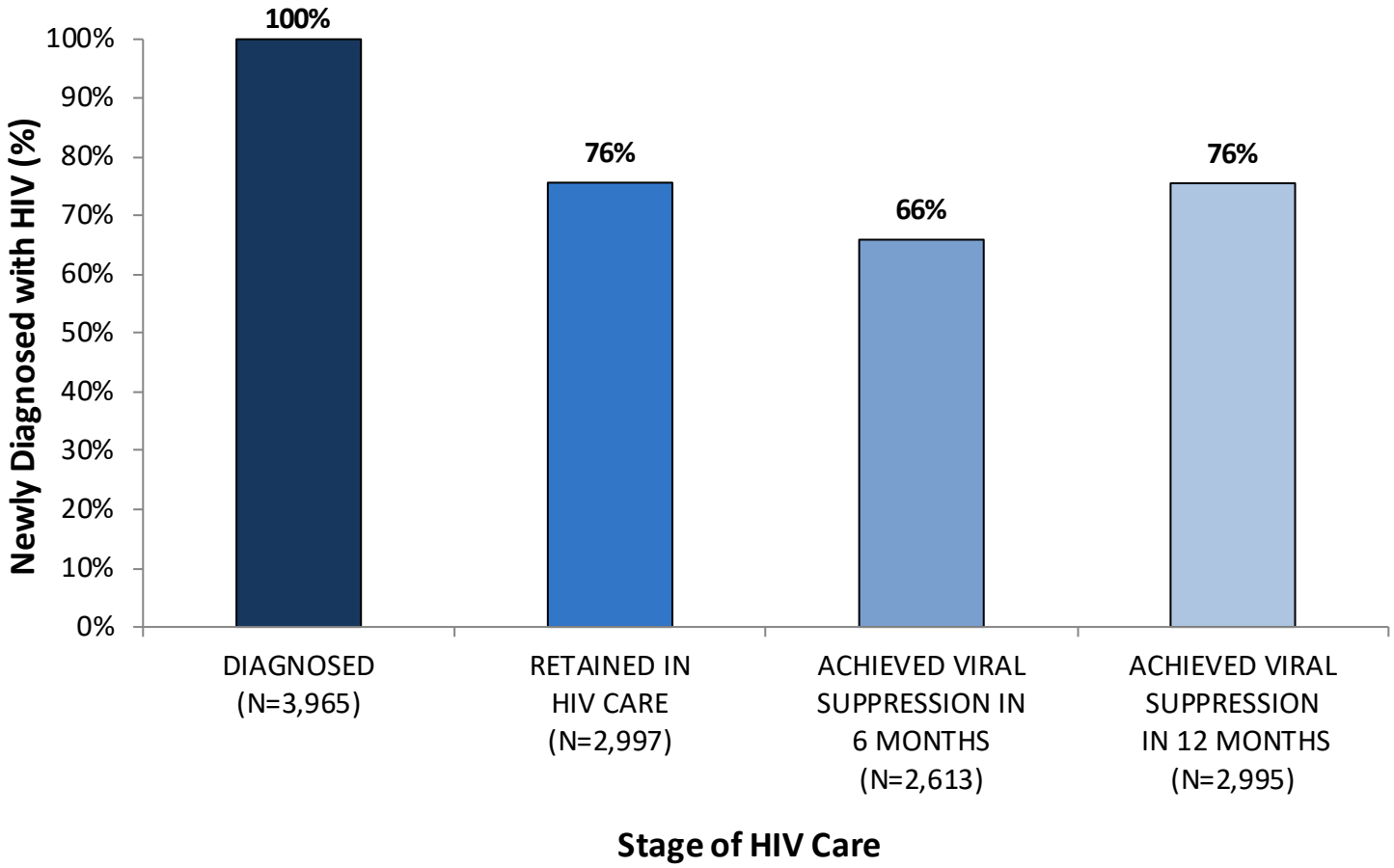
Figure 1. Linkage to HIV Care: Persons Newly Diagnosed with HIV Infection — California 2020



Newly diagnosed persons met the Centers for Disease Control and Prevention (CDC) surveillance case definition for HIV infection and were reported to be living in California at the time of diagnosis. Persons who had at least one CD4, viral load, or HIV-1 genotype test within the specified time period after diagnosis were linked to care during that time period. Time from diagnosis to linkage to care was calculated based on the month and year of the earliest diagnostic HIV test and the month and year of the next CD4, viral load, or HIV-1 genotype test.

The data were extracted from the California HIV Surveillance System at least 12 months after the end of the calendar year to allow for delays in case and laboratory reporting. Nonetheless, these data may still slightly underestimate the number of persons linked to care within 12 months since persons diagnosed late in the calendar year had less time for lab test results to be reported.

Figure 2. The Continuum of HIV Care: Persons Newly Diagnosed with HIV Infection — California 2020



Newly diagnosed persons met the CDC surveillance case definition for HIV infection and were reported to be living in California at the time of diagnosis. Newly diagnosed persons who had two or more CD4, viral load, or HIV-1 genotype tests that were performed at least 3 months apart, within 12 months of diagnosis were retained in care. Newly diagnosed persons whose most recent viral load test result within the reported time period following diagnosis was < 200 copies/ml were virally suppressed.

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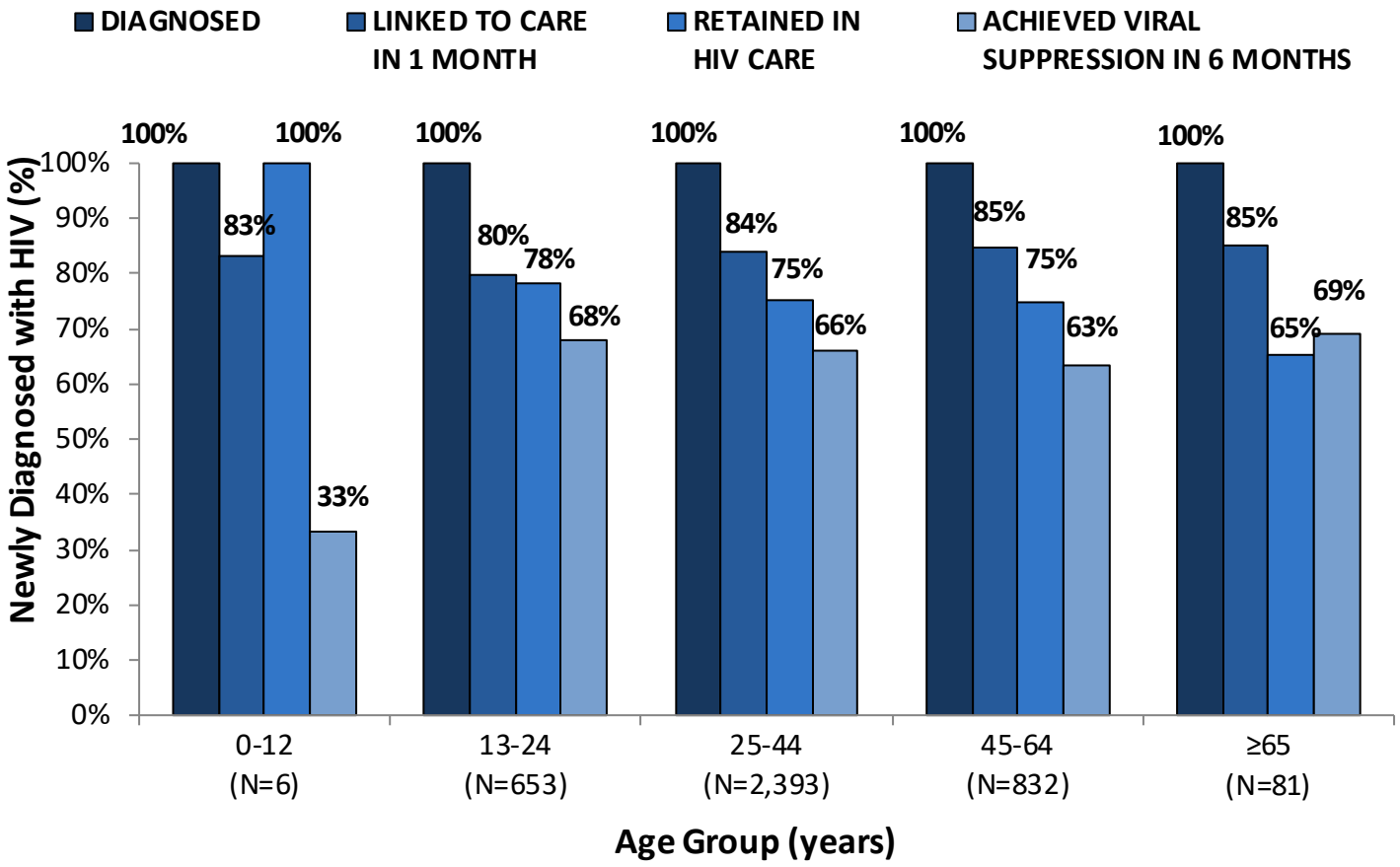
Figure 3. The Continuum of HIV Care by Age Group: Persons Newly Diagnosed with HIV Infection — California 2020



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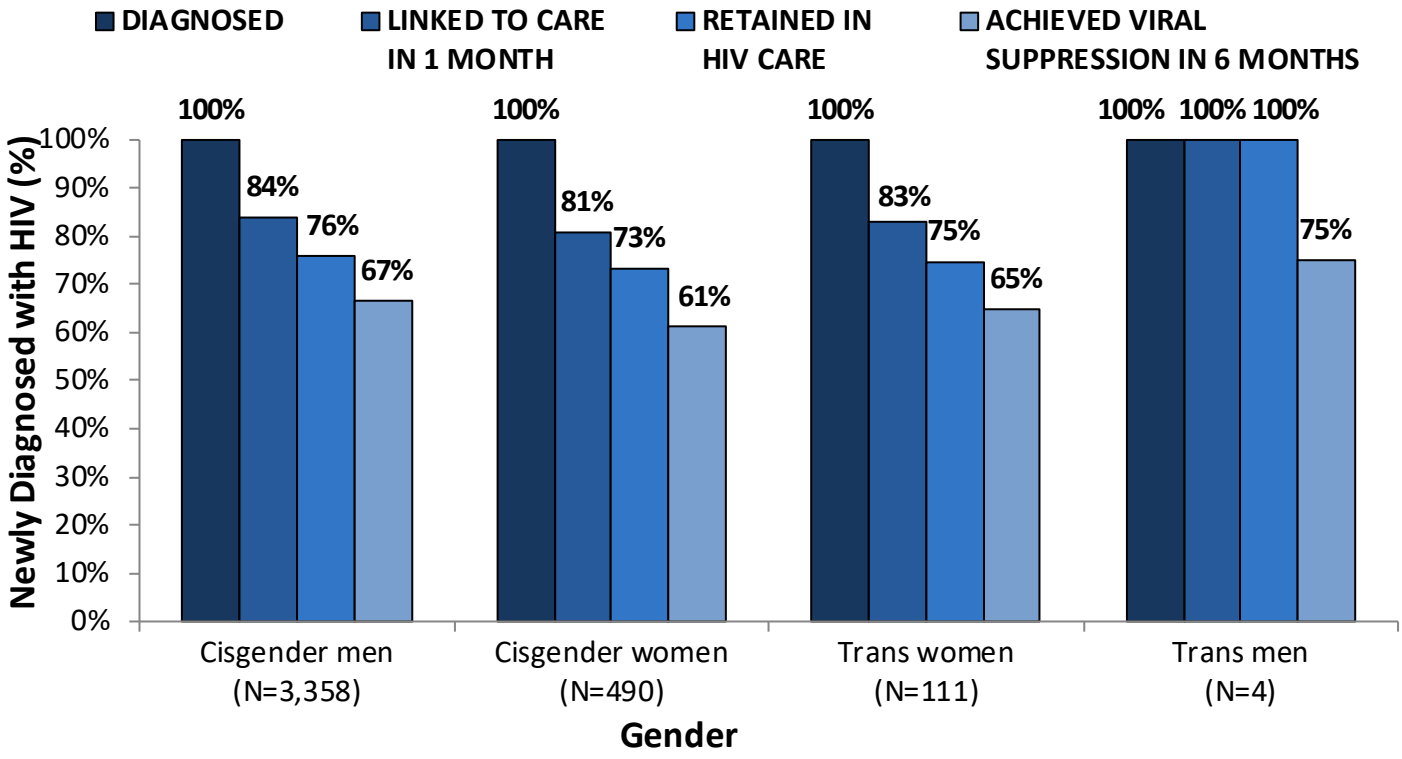
Age was calculated as of the date of diagnosis.

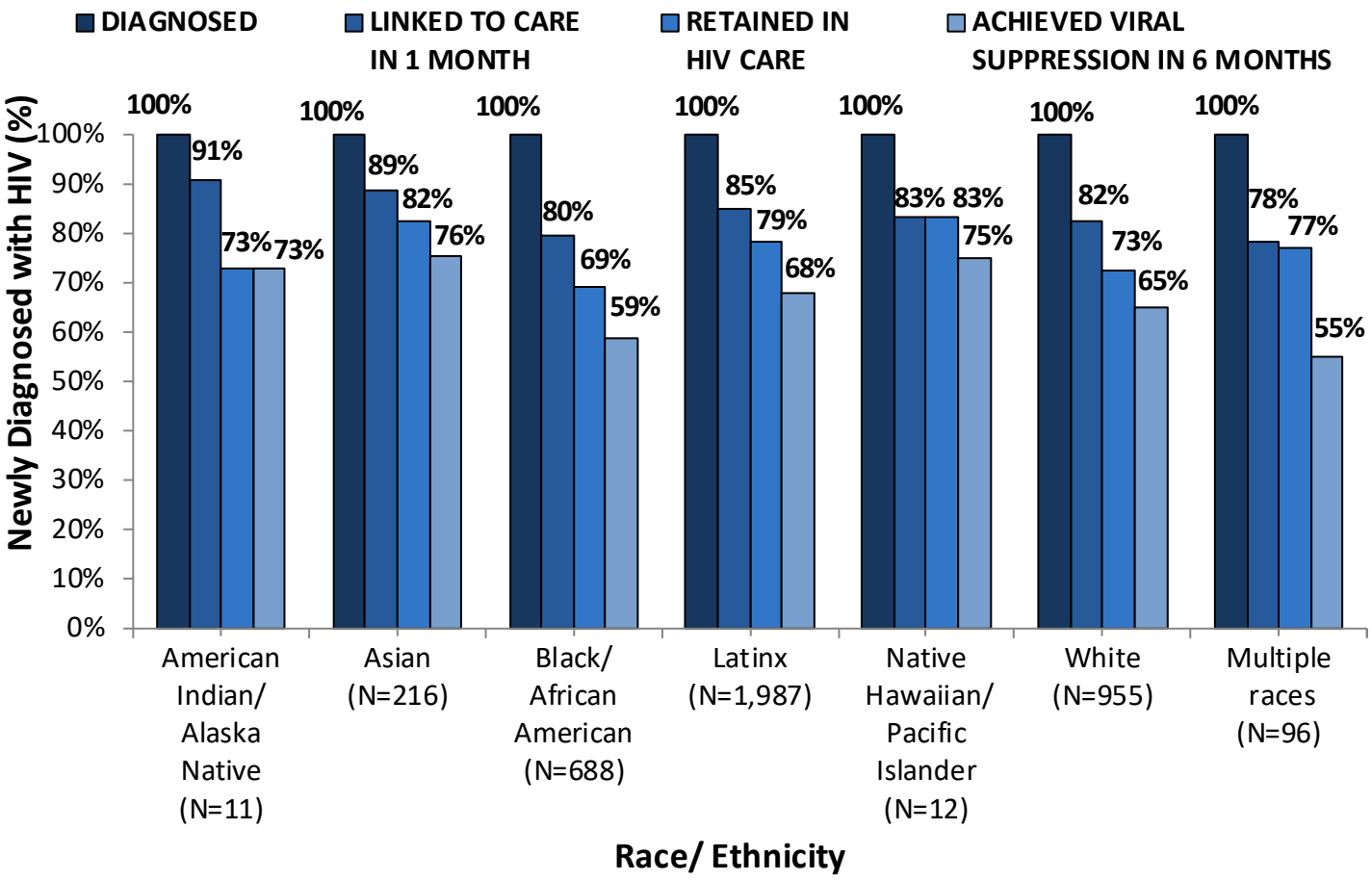
Figure 4. The Continuum of HIV Care by Gender: Persons Newly Diagnosed with HIV Infection — California 2020



Newly diagnosed persons met the CDC surveillance case definition for HIV infection and were reported to be living in California at the time of diagnosis. Persons who had at least one CD4, viral load, or HIV-1 genotype test within one month of diagnosis were linked to HIV care in one month. Persons who had two or more CD4, viral load or HIV-1 genotype tests that were performed at least 3 months apart within 12 months of diagnosis were retained in care. Persons whose most recent HIV viral load test result within 6 months of diagnosis was < 200 copies/ml were virally suppressed.

Current gender was determined as of the last day of the calendar year. Persons were classified as transgender if a case report form affirming their transgender status was present in HIV surveillance data. Two persons of alternative gender were not included in the figure above.

Figure 5. The Continuum of HIV Care by Race/Ethnicity: Persons Newly Diagnosed with HIV Infection — California 2020



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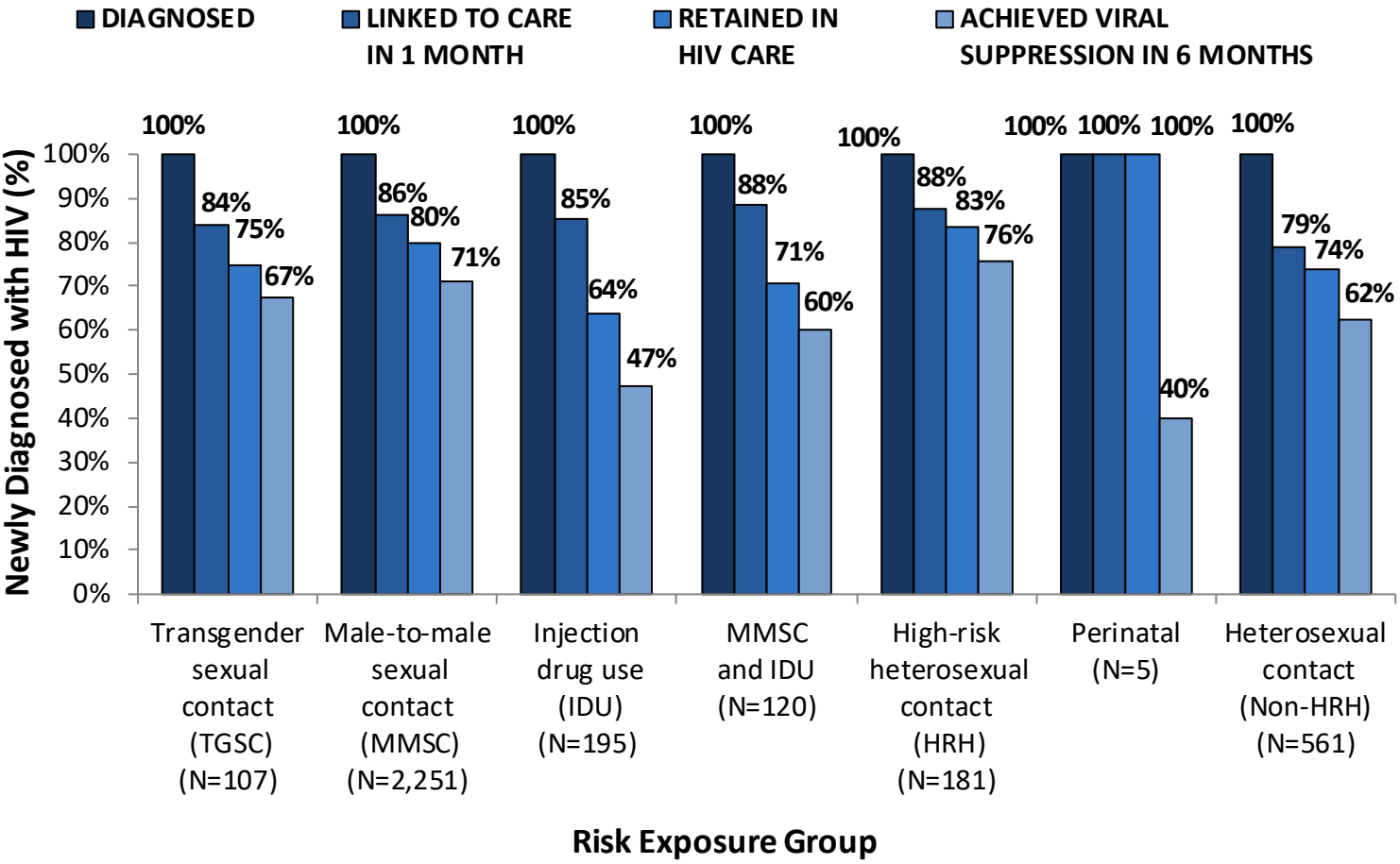
Latinx persons can be of any race. Although California Government Code Section 8310.5 requires the Department to tabulate information by expanded ethnicities for each major Asian and Pacific Islander group, the data shown here are not disaggregated into those groups in order to maintain the confidentiality of these persons.

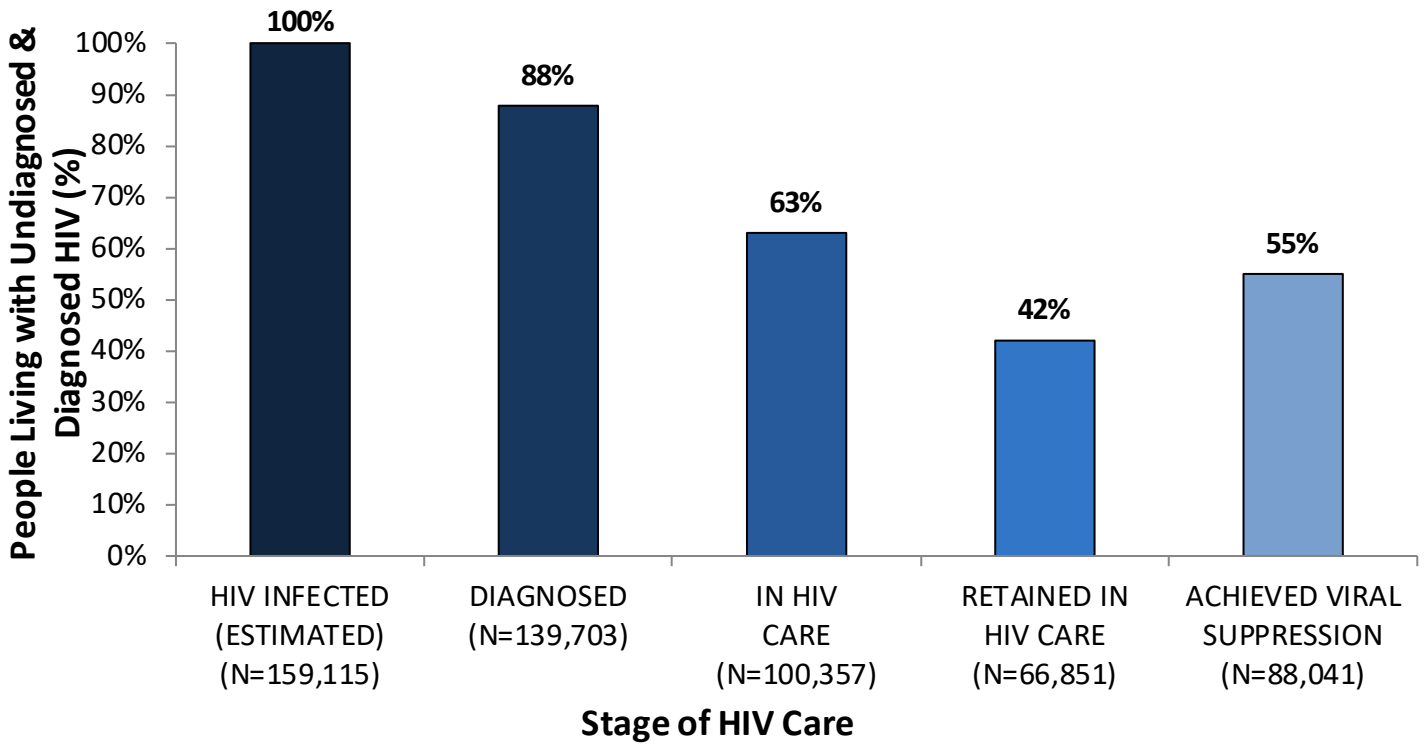
Figure 6. The Continuum of HIV Care by Transmission Category: Persons Newly Diagnosed with HIV Infection — California 2020



Newly diagnosed persons met the CDC surveillance case definition for HIV infection and were reported to be living in California at the time of diagnosis. Persons who had at least one CD4, viral load, or HIV-1 genotype test within one month of diagnosis were linked to HIV care in one month. Persons who had two or more CD4, viral load or HIV-1 genotype tests that were performed at least 3 months apart within 12 months of diagnosis were retained in care. Persons whose most recent HIV viral load test result within 6 months of diagnosis was < 200 copies/ml were virally suppressed.

Transgender persons who report sexual contact are placed in the transmission category of TGSC, regardless of IDU. HRH includes persons who reported engaging in heterosexual intercourse with a person of the opposite sex of their sex-at-birth, and that partner was known to be HIV positive or engage in an activity that put them at high risk for HIV (e.g., MMSC, IDU). Non-HRH includes persons with no other identified risk who reported engaging in heterosexual intercourse with a person of the opposite sex of their sex-at-birth. Perinatal includes persons who were exposed immediately before or during birth, or after birth due to breastfeeding. Among the persons newly diagnosed with HIV in California in calendar year 2020, there were five persons categorized as perinatal and 545 persons had no known risks reported and were categorized as "unknown risk." Persons categorized as having an “unknown risk” are not shown in the figure above.

Figure 7. The Overall Continuum of HIV Care: All Persons Living with HIV Infection — California, 2020



The estimated percent of undiagnosed persons living with HIV infection in California was calculated using the CD4-based model generated by the Centers for Disease Control and Prevention (CDC). For more information about the CD4-based methodology, please see *Hall HI, Song R, Tang T, An Q, Prejean J, Dietz P, Hernandez AL, Green T, Harris N, McCray E, Mermin J HIV Trends in the United States: Diagnoses and Estimated Incidence, JMIR Public Health Surveill 2017;3(1):e8 (http://publichealth.jmir.org/2017/1/e8/).*

Diagnosed persons met the CDC surveillance case definition for HIV infection and were presumed to be alive and living in California if no death document was received and they were residing in California as of the last known address. Persons who had at least one CD4, viral load, or HIV-1 genotype test during the calendar year were engaged in HIV care. Persons who had two or more CD4, viral load, or HIV-1 genotype tests that were performed at least 3 months apart during the calendar year were retained in care. Persons whose most recent HIV viral load test result during the calendar year was < 200 copies/ml were virally suppressed.

Figure 8. The Continuum of HIV Care: All Persons Living with Diagnosed HIV Infection — California, 2020

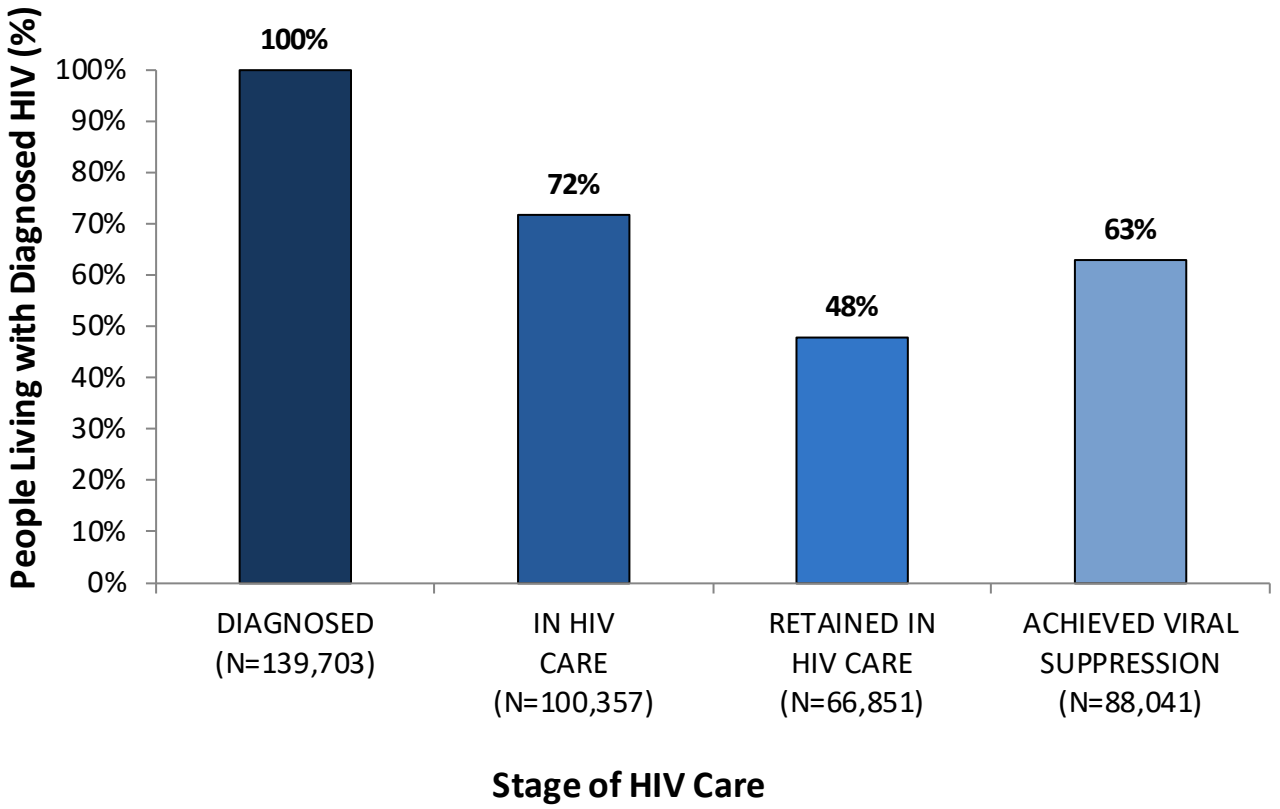


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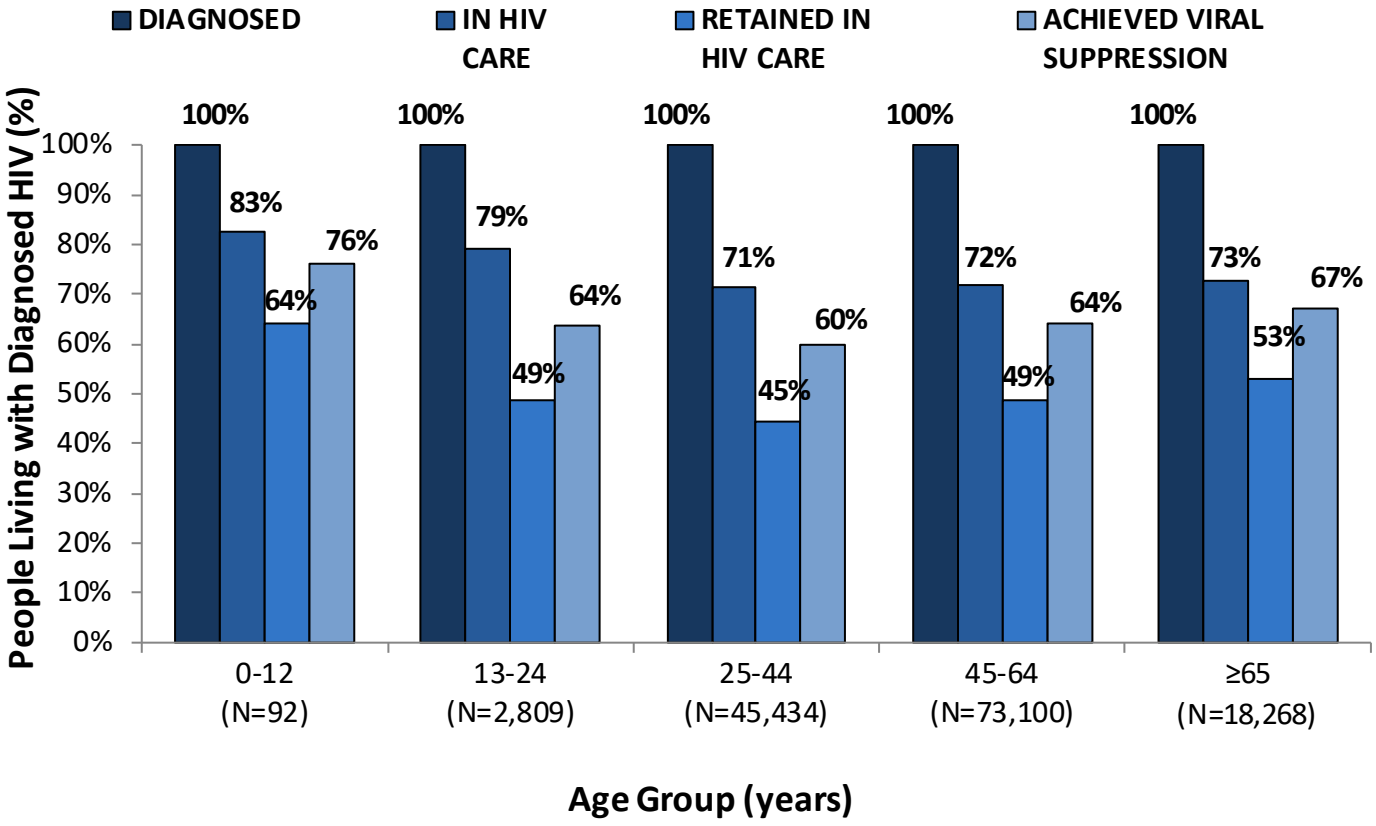
Figure 9. The Continuum of HIV Care by Age Group: All Persons Living with Diagnosed HIV Infection — California, 2020



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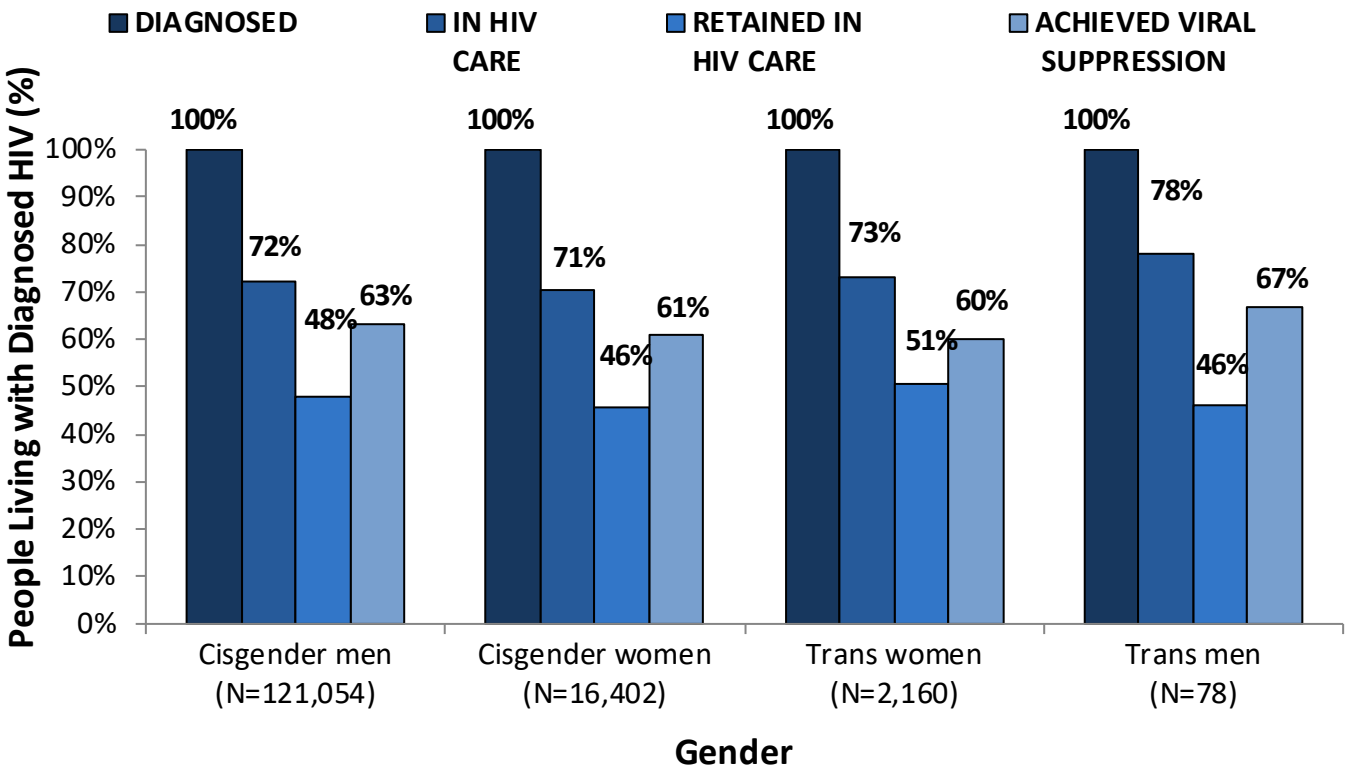
Age was calculated as of the last day of the calendar year.

Figure 10. The Continuum of HIV Care by Gender: All Persons Living with Diagnosed HIV Infection — California, 2020



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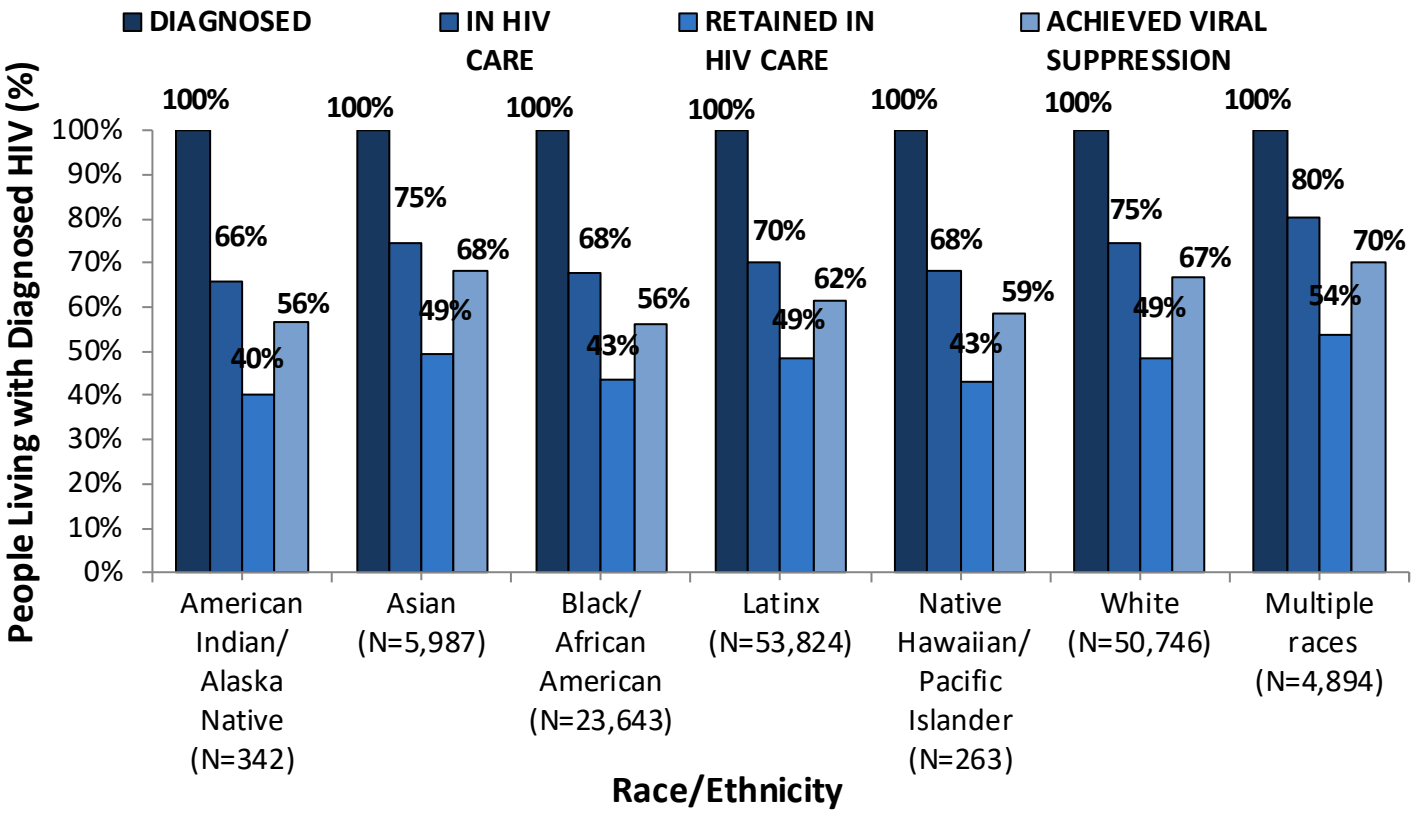
Persons were classified as transgender if a case report form affirming their transgender status was present in HIV surveillance data. Among the persons living with diagnosed HIV in California in calendar year 2020, there were nine persons categorized as alternative gender identity who are not shown in the figure above.

Figure 11. The Continuum of HIV Care by Race/Ethnicity: All Persons Living with Diagnosed HIV Infection — California, 2020



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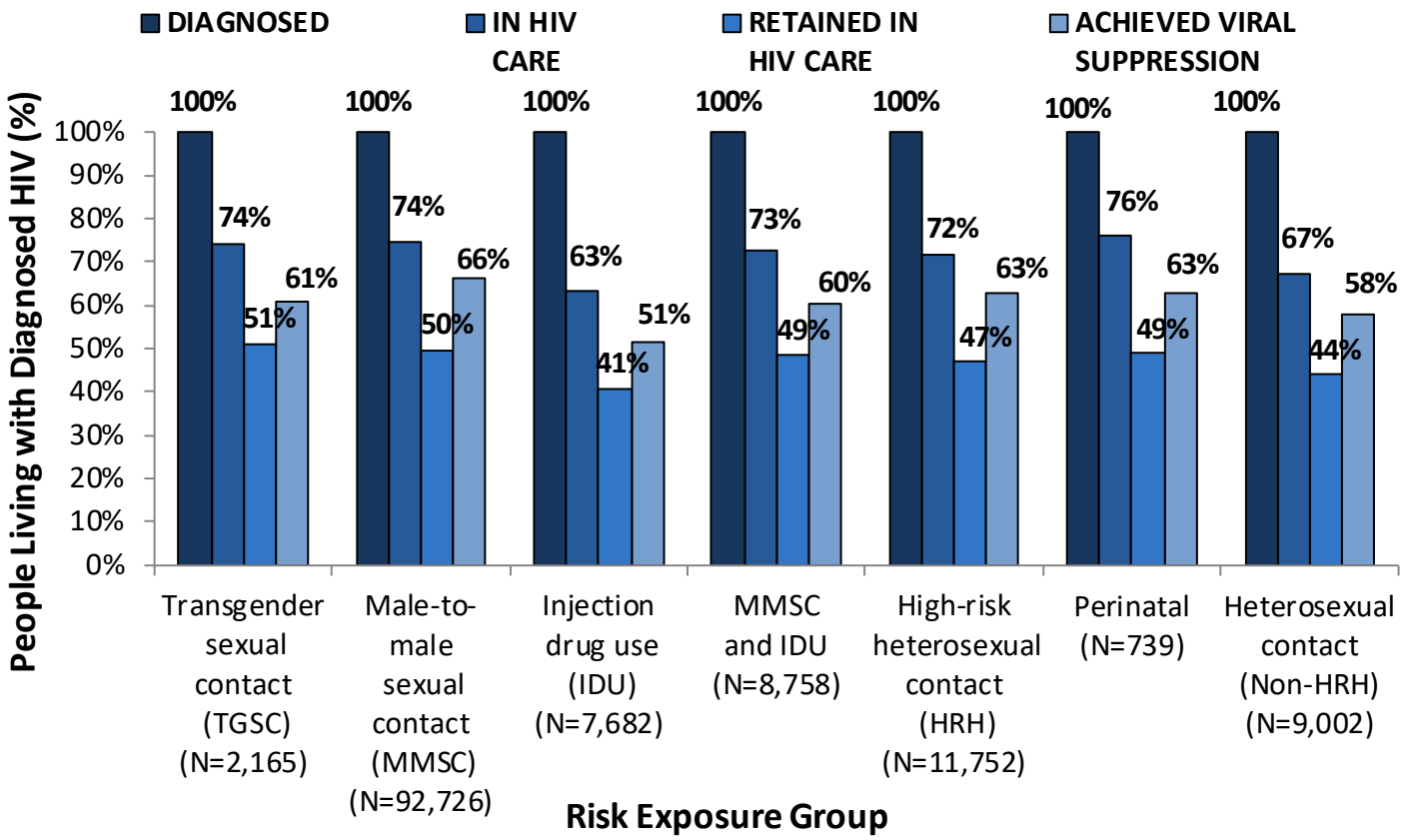
Latinx persons can be of any race. Race/ethnicity was collected using Asian/Native Hawaiian/Pacific Islander as a single category until 2003; therefore, cases reported prior to 2003 are classified as Asian above because they cannot be disaggregated. Although California Government Code Section 8310.5 requires the Department to tabulate information by expanded ethnicities for each major Asian and Pacific Islander group, the data shown here are not disaggregated in those groups in order to maintain the confidentiality of these persons. There were four persons living with diagnosed HIV in California in 2020 with an unknown race/ethnicity who are not shown in the figure above.

Figure 12. The Continuum of HIV Care by Transmission Category: All Persons Living with Diagnosed HIV Infection — California, 2020



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