HIV in Colorado

HIV Epidemiology Annual Report
For cases diagnosed through December 2016

COLORADO
Department of Public Health & Environment

May 2019

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Acknowledgements

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The Colorado Department of Public Health and Environment acknowledges that generations-long social, economic and environmental inequities result in adverse health outcomes. They affect communities differently and have a greater influence on health outcomes than either individual choices or one's ability to access health care. Reducing health disparities through policies and organizational systems can help improve opportunities for all Coloradans.

For further information about this report, contact the STI/HIV/VH Surveillance Program at 303-692-2700 or cdphe_stihivdatarequest@state.co.us. For additional data requests, please use the STI/HIV/Viral Hepatitis Data Request Form.

Acronyms

ACS	American Community Survey
AIDS	Acquired Immune Deficiency Syndrome
CDC	Centers for Disease Control and Prevention
CDOC	Colorado Department of Corrections
CDPHE	Colorado Department of Public Health and Environment
CI	Confidence Interval
DPH	Denver Public Health
eHARS	Enhanced HIV and AIDS Reporting System
GED	General Education Development
HCV	Hepatitis C Virus
HET	Heterosexual
HIV	Human Immunodeficiency Virus
IDU	Injection Drug Use
MAI	Minority AIDS Initiative
MSA	Metropolitan Statistical Area
MSM	Men who have Sex with Men
MSM/IDU	Men who have Sex with Men and Injection Drug Use
MSM/PWID	Men who have Sex with Men and People Who Inject Drugs
NHBS	National HIV Behavioral Surveillance
PLHIV	People Living with HIV
PWID	People Who Inject Drugs
STI	Sexually Transmitted Infection
TGA	Transitional Grant Area (Includes Adams, Arapahoe, Broomfield, Denver, Douglas and Jefferson Counties)

Executive Summary

From 1982 through 2016, 20,252 cases of HIV have been diagnosed and reported in Colorado. The introduction and use of HIV antiretroviral treatment therapies in 1996 reduced both mortality and morbidity among people living with HIV (PLHIV) in Colorado and the United States. Mortality among PLHIV has decreased by 18.9% from 2007 to 2016 and 5.7% from 2012 to 2016 while the number of PLHIV has increased steadily.

Although the number of women living with HIV in Colorado has increased, perinatal transmission has decreased dramatically since 1996. The decrease in transmission rates is attributed to the widespread screening of pregnant women for HIV and the use of antiretroviral drugs during and after pregnancy, labor and delivery.

This report describes trends in HIV in Colorado by person, place, and time.

New HIV Diagnoses

Diagnosed cases of HIV remained geographically centered in the Front Range and urban population centers of Colorado. In 2016, Colorado reported 7.8 new diagnoses of HIV per 100,000, a 6.0% increase from 7.4 in 2012. Men represent the majority of diagnoses (88.2%) and 55.6% of diagnoses were among those 20-35 years of age.

People Living with HIV

By December 31, 2016, 13,681 people were known to be living with HIV in Colorado, which is a 6.2% increase from 12,885 at the end of 2015. While the majority of PLHIV are Non-Hispanic White (60.2%), the percentage Non-Hispanic Black (16.0%) is disproportionate to the overall population (4.2%t). With better treatments the PLHIV cohort is aging, a majority of PLHIV (56.7%) are in their 40s and 50s.

Priority Populations

Acquisition of HIV in Colorado is still overwhelmingly driven by sexual exposure, primarily among men who have sex with men (MSM). MSM continued to be the most significant transmission category and accounted for 68.8% of male HIV cases diagnosed in 2016. Among females, heterosexual transmission represents 27.5% of newly diagnosed HIV cases. Of the 2012-2016 new diagnoses, PWID made up 13.1%, including PWID alone and PWID/MSM. In the same timeframe, 13.6% of new diagnoses were born outside of the United States.

HIV surveillance data are used to detect outbreaks, prioritize resources, develop and tailor interventions, and evaluate the effectiveness of interventions. HIV can also serve as a marker to identify health-related inequities that may exist in Colorado communities.

Data Sources and Methods

This report reflects events occurring through December 31, 2016 and reported by December 31, 2017.

Colorado law requires that both laboratories and health care providers report cases of HIV within four days to CDPHE. In the case of laboratories, all tests indicative of or highly correlated with HIV, such as HIV-positive antibody tests, genotyping tests, all HIV viral loads, and all CD4+ counts are reportable.

HIV Diagnoses Data

The data that form the basis of this report are principally reports of HIV among people who were living in Colorado at the time of their diagnosis. Cases are reported to the CDPHE STI/HIV/Viral Hepatitis Surveillance Program and are entered into eHARS, the CDC-sponsored database that is used to enumerate HIV cases in Colorado.

Colorado Population Data

The Division of Local Affairs State Demography Office provided information about the characteristics of Colorado's population to allow comparisons to people reported with HIV when possible. Our race/ethnicity categories are in line with the U.S. Census Bureau. Otherwise, population characteristics came from the U.S. Census Bureau American Community Survey (ACS) Data. The ACS estimates its data using a 1% sample of the U.S. population.

Death Data

The Vital Statistics Branch of CDPHE provided cause-of-death data obtained from death certificates filed with the department through 2016.

Correctional Facility Data

The Colorado Department of Corrections provided data on the demographic characteristics of the population in correctional facilities.

Employment Data

The Colorado Department of Labor and Employment provided data on employment in Colorado.

Education Data

The Colorado Department of Education provided data on school enrollment in Colorado.

Rates of reported cases in this report were calculated based on cases diagnosed in the calendar year per 100,000 persons. The 2016 disease rates for all Colorado counties were calculated by dividing the number of diagnoses for that county in 2016 by the 2016 total population for each county estimated by

the Colorado State Demography Office and multiplying by 100,000. Our race/ethnicity categories are in line with the U.S. Census Bureau.

Strengths and Limitations of the Data

HIV has been reportable by name from laboratories and care providers since 1985 by regulation and since 1987 by state statute. In 1987, CDPHE initiated an active system of surveillance for HIV for the purposes of accurately characterizing the epidemic in Colorado.

In general, people who are living with HIV, and are not on treatment, will eventually progress to AIDS. For some people, this progression may be relatively rapid (less than two years), but it usually occurs over a five-to-10-year period. Thus, aggregate data about AIDS cases may have limited use for HIV prevention planning because they characterize people (and their risk behaviors) who may have acquired HIV more than 10 years ago. The introduction of highly active antiretroviral therapies have further altered the natural history of HIV and delayed progression to AIDS, making AIDS data less useful each year for planning purposes and thus have been minimized in this report. Data is available for people recently diagnosed with HIV (which does not necessarily mean newly acquired). Prevention strategies initiated in Colorado to test, diagnose and treat priority populations can find more people who may not know they acquired HIV and provide them with ongoing care services to reduce transmission of HIV.

Finally, investigation of transmission factors for HIV occurs over time. People who are newly diagnosed may not have discussed the transmission factors with HIV counselors, disease intervention specialists (DIS), or their health care providers. As the patient seeks care and agrees to interviews, transmission information is more likely to be ascertained.

The location where a case of HIV is "counted" presents a unique challenge. Jurisdiction of a case of HIV is established at the time of diagnosis. Changes in address are reported through passive surveillance. Consequently, it is difficult to measure the effect of migration in or out of any county or Colorado as a whole. Colorado participates in a national de-deduplication process. This process adds additional information such as transmission category, date of diagnosis, and address, which may not have been known when the case was recorded in Colorado.

When appropriate, changes in disease trends over time are calculated using 95% confidence intervals. Statistical significance is noted when the calculated rate from one time period to the next fall outside the limits set by the confidence intervals.

Statement on Structural Inequity

The Colorado Department of Public Health and Environment acknowledges that generations-long social, economic and environmental inequities result in adverse health outcomes. They affect communities differently and have a greater influence on health outcomes than either individual choices or one's ability to access health care. Reducing health disparities through policies, practices and organizational systems can help improve opportunities for all Coloradans.

Guidelines for Accurate Use of Data

The following guidelines are provided to ensure an accurate understanding of the use, interpretation and limitations of the data presented in this report. These guidelines can help prevent data misuse and increase understanding of the accuracy and correct use of the HIV data. These guidelines may be considered when reviewing data from any source.

1. Data in this report are based on cases reported to the STI/HIV/VH Surveillance Program, Disease Control and Environmental Epidemiology Division, CDPHE. These data represent occurrences of disease among persons seeking and receiving care for HIV.
2. Small changes in numbers from year to year can appear dramatic if the actual number of cases is small. For example, if two diagnoses of HIV are counted in a county in one year and three diagnoses are counted the next year, this is an increase of 50%. While this may sound significant, a change of one case does not represent a meaningful increase in the burden of disease. Although disease rates were calculated for counties reporting fewer than five cases, rates based on low case counts are considered statistically unreliable. Caution is recommended in interpreting trends or comparing across counties.
3. Data are presented for all reported cases and are known not to be 100% complete. Factors that impact the completeness and accuracy of HIV data include:
    a. Level of HIV screening by health care providers
    b. Individual test-seeking behavior (awareness of illness often depends on whether an individual is symptomatic or not)
    c. Sensitivity of diagnostic tests
    d. Compliance with case reporting
    e. Completeness of case reporting
    f. Timeliness of case reporting
4. Increases and decreases in HIV rates can be due to actual changes in disease transmission and/or changes in one or more of the above factors.

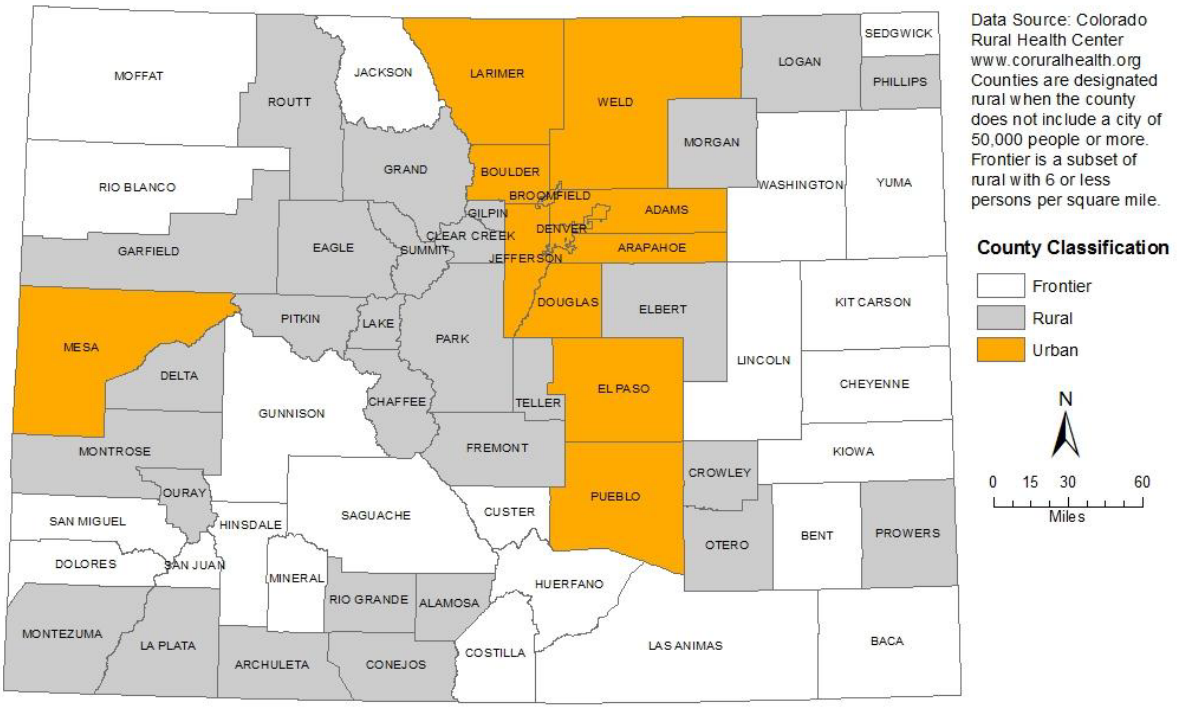
List of Tables and Figures

Description of Colorado

Summary

- Colorado's 2016 population was estimated to be 5,538,182 with an approximately equal distribution between men (50.1%) and women (49.9%).
- Nearly half (49.3%) of Colorado's population resided in the five-county Denver metro area, and 85.6% resided in one of the 12 urban counties.
- Three-fifths (61.1%) of Coloradans were between the ages of 20 and 64.
- Colorado's population was 68.6% Non-Hispanic White, 22.5% Hispanic and 4.2% Non-Hispanic Black. Non-Hispanic Asian/Pacific Islander, Non-Hispanic Native American, and other races comprised the remaining 4.7%.
- Colorado ranked 15th in the nation's poverty-level rating in 2016.
- Colorado's unemployment was 3.3% at the end of 2016 compared to the United States' 4.7%.
- Colorado's percent of nonelderly uninsured people was slightly lower than reported nationally in 2016 (9% & 10%, respectively).

Figure 1.1: Map of Colorado by County Classification



Geography

Colorado is a geographically rural state. It is made up of 64 counties and has a landmass of 104,095 square miles. Nearly half (49.3%) of Colorado's population resided in the five-county Denver metro area (Adams, Arapahoe, Denver, Douglas and Jefferson counties) and 85.6% resided in one of the 12 counties designated as urban by the U.S. Census Bureau. Urban counties include Adams, Arapahoe, Boulder,

Broomfield, Denver, Douglas, El Paso, Jefferson, Larimer, Mesa, Pueblo and Weld. A county is designated rural when the county does not include a micro- or metropolitan area of 50,000 people or more. Counties classified as frontier, a subset of rural, have six or fewer people per square mile. All three classifications and their counties are pictured in **Figure 1.1** above.

Population

The Colorado State Demography Office estimated a state population of 5,538,182 in 2016. The state ranks 22nd in the nation in population, accounting for approximately 1.7% of the U.S. population.[1]

Age

The median age in Colorado was 36 years old in 2016. Of the state's population, 61.1% were between the ages of 20 and 64. The elderly population (over 65) continued to increase slightly over the last few years, 11.8% in 2012 and 13.4% in 2016.[2] **Table 1.1** illustrates the distribution of the population by sex and age.

Table 1.1: 2016 Colorado Population by Sex and Age

	Male			Female			Total	
Age Group	N	Row %	Column %	N	Row %	Column %	N	Column %
<5	170,451	51.1	6.1	163,259	48.9	5.9	333,710	6.0
5-9	178,431	51.2	6.4	169,986	48.8	6.1	348,417	6.3
10-14	185,893	51.1	6.7	178,138	48.9	6.4	364,031	6.6
15-19	186,593	51.4	6.7	176,682	48.6	6.4	363,275	6.6
20-24	208,585	53.2	7.5	183,339	46.8	6.6	391,924	7.1
25-29	211,578	51.0	7.6	203,039	49.0	7.3	414,617	7.5
30-34	211,651	50.7	7.6	205,833	49.3	7.4	417,484	7.5
35-39	191,880	50.8	6.9	186,093	49.2	6.7	377,973	6.8
40-44	184,529	51.0	6.7	177,450	49.0	6.4	361,979	6.5
45-49	183,766	50.7	6.6	178,654	49.3	6.5	362,420	6.5
50-54	179,062	49.6	6.5	182,132	50.4	6.6	361,194	6.5
55-59	182,511	49.2	6.6	188,670	50.8	6.8	371,181	6.7
60-64	158,349	48.6	5.7	167,470	51.4	6.1	325,819	5.9
65-69	130,696	48.3	4.7	139,783	51.7	5.1	270,479	4.9
70-74	85,832	47.2	3.1	96,035	52.8	3.5	181,867	3.3
75-79	55,210	45.7	2.0	65,652	54.3	2.4	120,862	2.2
80-84	35,776	43.4	1.3	46,726	56.6	1.7	82,501	1.5
≥85	32,023	36.2	1.2	56,426	63.8	2.0	88,449	1.6
Total	2,772,816	50.1	100.0	2,765,366	49.9	100.0	5,538,182	100.0

Source: Colorado State Demography Office, 2016 Estimates by Sex, Age & Race/Ethnicity, received and revised November 2017.

[1] U.S. Census Bureau, 2016 ACS 5-year Estimate Data Table B01003 (geography: United States and all states within). http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

[2] Colorado State Demography Office, 2016 Estimates by Sex, Age & Race/Ethnicity, received and revised November 2017.

Race/Ethnicity

Statewide, 68.6% of the population classified themselves as Non-Hispanic White, 22.5%t as Hispanic, 4.2% as Non-Hispanic Black, 3.7% as Non-Hispanic Asian/Pacific Islander, and 1.0% as Non-Hispanic Native American/Alaska Native. The following tables show the racial breakdowns in Colorado by sex (**Table 1.2**) and county (**Table 1.3**).[3] It should be noted that some of the subsequent tables may have slightly different denominators.

Table 1.2: 2016 Colorado Population by Sex and Race/Ethnicity

	Male			Female			Total	
Race/Ethnicity	**N**	**Row %**	**Column %**	**N**	**Row %**	**Column %**	**N**	**Column %**
White, Non-Hispanic	1,903,953	50.1	68.7	1,897,868	49.9	68.6	3,801,821	68.6
Hispanic, all races	625,396	50.2	22.6	619,674	49.8	22.4	1,245,070	22.5
Black, Non-Hispanic	123,034	52.7	4.4	110,238	47.3	4.0	233,272	4.2
Asian/Hawaiian/Pacific Islander, Non-Hispanic	93,455	45.7	3.4	110,893	54.3	4.0	204,348	3.7
Native American/Alaskan Native, Non-Hispanic	26,977	50.3	1.0	26,692	49.7	1.0	53,669	1.0
Total	2,772,815	50.1	100.0	2,765,365	49.9	100.0	5,538,180	100.0

Source: Colorado State Demography Office, 2016 Estimates by Sex, Age & Race/Ethnicity, received and revised November 2017.

Table 1.3: 2016 Colorado Counties Percent of the Population by Race/Ethnicity

County	White, Non-Hispanic	Hispanic, all races	Black, Non-Hispanic	Asian/PI, Non-Hispanic	Native Amer./AK Native, Non-Hispanic	Total Population
Adams	51.1	40.6	3.0	4.4	0.8	497,673
Alamosa	46.9	49.7	1.0	1.3	1.1	16,131
Arapahoe	62.2	20.0	10.4	6.5	0.9	637,255
Archuleta	77.1	19.5	0.5	1.2	1.7	12,907
Baca	86.9	10.5	0.7	0.5	1.3	3,557
Bent	57.1	33.0	7.3	1.1	1.6	5,626
Boulder	78.4	14.7	1.1	5.1	0.7	321,989
Broomfield	78.1	12.4	1.3	7.4	0.8	66,252
Chaffee	85.6	10.8	1.7	1.0	1.0	19,097
Cheyenne	86.9	11.0	0.5	0.8	0.9	1,853
Clear Creek	92.1	5.3	0.8	0.9	0.9	9,443
Conejos	39.1	59.5	0.3	0.5	0.7	8,039
Costilla	28.2	69.4	0.3	1.1	0.9	3,707
Crowley	56.8	30.9	9.1	1.4	1.8	5,214
Custer	91.7	5.4	1.3	0.7	0.9	4,617

[3] Colorado State Demography Office, 2016 Estimates by Sex, Age & Race/Ethnicity, received and revised November 2017.

Delta	82.0	15.6	0.6	0.9	0.9	30,471
Denver	50.7	33.9	10.2	4.3	1.0	693,292
Dolores	91.4	4.7	0.5	0.6	2.8	2,035
Douglas	84.7	8.5	1.5	4.7	0.6	328,330
Eagle	65.7	32.0	0.6	1.3	0.4	53,928
El Paso	71.4	16.7	6.5	4.2	1.2	690,207
Elbert	90.9	6.0	1.0	1.2	0.9	25,169
Fremont	79.5	13.7	4.1	1.0	1.8	47,487
Garfield	67.7	29.9	0.6	1.0	0.8	58,984
Gilpin	90.5	5.7	0.8	2.0	0.9	5,926
Grand	89.5	8.2	0.5	1.3	0.6	15,039
Gunnison	88.5	9.4	0.5	1.0	0.7	16,394
Hinsdale	93.7	3.4	0.7	0.8	1.4	775
Huerfano	59.2	38.6	0.5	0.6	1.1	6,642
Jackson	87.0	11.4	0.1	0.3	1.2	1,351
Jefferson	78.6	16.0	1.2	3.4	0.8	571,711
Kiowa	93.3	5.8	0.2	0.1	0.5	1,347
Kit Carson	75.2	20.8	2.6	0.8	0.7	7,639
Lake	56.1	41.9	0.5	0.7	0.8	7,595
La Plata	79.8	13.2	0.6	1.1	5.3	55,697
Larimer	83.7	11.9	1.0	2.7	0.7	338,663
Las Animas	51.4	45.0	1.4	0.9	1.3	14,082
Lincoln	78.4	14.0	5.6	1.1	1.0	5,554
Logan	76.9	17.3	4.1	0.8	1.0	22,047
Mesa	82.1	14.9	0.8	1.3	0.9	150,731
Mineral	96.0	2.8	0.3	0.3	0.5	737
Moffat	81.8	15.8	0.4	1.0	1.0	13,088
Montezuma	74.4	12.4	0.5	1.0	11.7	26,906
Montrose	76.5	21.3	0.5	1.0	0.8	41,421
Morgan	59.7	36.2	2.8	0.8	0.5	28,148
Otero	53.6	43.8	0.6	1.1	0.8	18,290
Ouray	93.4	4.8	0.3	0.9	0.6	4,844
Park	91.6	5.5	0.7	1.1	1.1	17,285
Phillips	77.9	20.4	0.4	1.0	0.4	4,285
Pitkin	87.3	10.1	0.6	1.7	0.4	17,773
Prowers	60.2	38.1	0.5	0.5	0.7	11,841
Pueblo	51.4	44.8	1.9	1.1	0.9	165,109
Rio Blanco	86.0	11.1	0.9	1.0	1.0	6,497
Rio Grande	52.5	45.6	0.3	0.6	1.0	11,424
Routt	90.4	7.5	0.5	1.1	0.5	24,679

Saguache	54.5	42.6	0.3	1.2	1.4	6,404
San Juan	85.5	13.2	0.2	0.8	0.4	698
San Miguel	88.2	9.3	0.5	1.2	0.7	8,000
Sedgwick	83.9	14.2	0.5	0.9	0.5	2,421
Summit	81.8	15.5	0.9	1.4	0.4	30,367
Teller	90.5	6.3	0.8	1.3	1.1	24,154
Washington	89.0	9.4	0.8	0.5	0.4	4,875
Weld	65.3	31.1	1.0	1.7	0.8	294,397
Yuma	76.3	22.7	0.2	0.4	0.4	10,082

Source: Colorado State Demography Office, 2016 Estimates by Sex, Age & Race/Ethnicity, received and revised November 2017.

Poverty and Income

In 2016, the U.S. American Community Survey (ACS) estimated Colorado's median household income to be $62,520 (±$287) using a five-year estimate.[4] The ACS estimated the percentage of Coloradans living below the poverty level to be 12.2% in 2016[5], which was down from 12.7% in 2015[6]. **Table 1.4** shows the percent of the population below poverty level per county in 2016. Douglas County had the lowest percentage of people living in poverty (3.8%) while Crowley County had the highest percentage of people living in poverty (34.1%). The county whose percent below poverty had the largest percent decrease was San Juan County with 16.5% of people below the poverty level in 2015 and 3.8% in 2016 (just above Douglas County).[6]

Table 1.4: Percentage of the Population Under the Poverty Level by County - Colorado (2016)

County	Percentage Under Poverty Level
State of Colorado	12.2
Adams	12.9
Alamosa	31.4
Arapahoe	10.7
Archuleta	11.2
Baca	18.0
Bent	25.2
Boulder	13.4
Broomfield	5.9
Chaffee	9.6
Cheyenne	11.3
Clear Creek	7.4
Conejos	22.1

[4] U.S. Census Bureau, 2016 ACS 5-year Estimate Data Table B19013 (geography: State of Colorado). http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

[5] U.S. Census Bureau, 2016 ACS 5-year Estimate Data Table S1701 (geography: State of Colorado and all counties within). http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

[6] U.S. Census Bureau, 2015 ACS 5-year Estimate Data Table S1701 (geography: State of Colorado). http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

Costilla	30.4
Crowley	34.1
Custer	17.9
Delta	16.8
Denver	16.4
Dolores	19.3
Douglas	3.8
Eagle	8.1
Elbert	5.1
El Paso	11.3
Fremont	16.6
Garfield	11.1
Gilpin	7.1
Grand	10.6
Gunnison	15.4
Hinsdale	11.2
Huerfano	17.1
Jackson	13.8
Jefferson	8.1
Kiowa	10.7
Kit Carson	14.2
Lake	11.5
La Plata	10.7
Larimer	13.2
Las Animas	14.3
Lincoln	17.0
Logan	16.3
Mesa	16.3
Mineral	8.2
Moffat	11.1
Montezuma	18.7
Montrose	18.0
Morgan	10.7
Otero	23.1
Ouray	9.2
Park	6.3
Phillips	11.9
Pitkin	8.6
Prowers	20.6
Pueblo	20.2
Rio Blanco	12.4
Rio Grande	19.2
Routt	10.2
Saguache	22.6
San Juan	3.8
San Miguel	11.9

Sedgwick	14.7
Summit	12.1
Teller	7.5
Washington	11.7
Weld	12.6
Yuma	14.6

Source: U.S. Census Bureau, 2016 ACS 5-year Estimate Data Table S1701 (geography: State of Colorado and all counties within).

Employment

There were an estimated 94,500 people who were unemployed in 2016, a rate of 3.3%, according to the Colorado Department of Labor. This rate is 5.7% lower than 2015 when 98,458 people were unemployed at a rate of 3.5%.[7] According to the U.S. Bureau of Labor Statistics 2016 employment data, the U.S. unemployment rate of 4.9% was 48.5% higher than Colorado in 2016.[8]

Insurance

According to the Kaiser Family Foundation, 9% of Colorado's population was uninsured in 2016. This was slightly lower than the U.S. estimate of 10% in the same timeframe and ranked the state as tied for 24th place with five other states for uninsured nonelderly in the nation.[9] **Table 1.5** shows that the percentage of Colorado's population not covered by health insurance was more than double among Hispanics (18%) and Non-Hispanic Native Americans/Alaska Natives (16%) compared to Non-Hispanic Whites (6%).

Table 1.5: Percentage of the Non-Elderly Adults without Health Insurance Coverage by Race/Ethnicity- Colorado and United States (2016)

Race/Ethnicity	Colorado	United States
White, Non-Hispanic	6%	7%
Black, Non-Hispanic	7%	11%
Hispanic, all races	18%	19%
Asian/Native Hawaiian/Pacific Islander, Non-Hispanic	7%	7%
Native American/AK Native, Non-Hispanic	16%	22%
Multiple Races, Non-Hispanic	5%	8%
Total	9%	10%

Source: Henry J. Kaiser Family Foundation, State Health Facts, utilizes ACS data. Estimates with relative standard errors greater than 30% are not provided. US total excludes Puerto Rico.

[7] Colorado Department of Labor and Employment. Colorado LMI Gateway, Labor Force Information. http://lmigateway.coworkforce.com

[8] United States Department of Labor, Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey, 2016 Annual Average. https://www.bls.gov/cps/cps_aa2016.htm

[9] The Henry J. Kaiser Family Foundation. State Health Facts. Colorado: Uninsured Rates for the Nonelderly by Race/Ethnicity. http://www.statehealthfacts.org/profileind.jsp?ind=143&cat=3&rgn=7

Education

According to the Colorado Department of Education, the public school enrollment of preschool through 12th grade in 2016 was 905,018 people in Colorado. School enrollment was comprised of 53.8% Non-Hispanic White, 33.5% Hispanic, 4.6% Non-Hispanic Black, 3.3% Non-Hispanic Asian/Pacific Islander, 4.0% two or more races and 0.7% Non-Hispanic Native American.[10] **Table 1.6** shows the percent of the population graduating from high school and college by sex. Compared to the state as a whole, 19 counties have a larger proportion of higher education degrees. Three have a population where 65.0% or more have a higher education degree: Pitkin, Douglas and Boulder counties. In contrast, nearly half of counties (31 of 64) have a larger proportion of the population with no high school diploma or equivalent compared to the state as a whole.[11]

Table 1.6: Percentage of Population 25 Years Old and Over, High School Graduates or Higher Degree by Sex and County - Colorado (2016)

Geography	Men			Women			Total		
	No HS Diploma/ Equivalent	HS Grad/ Equivalent	Higher Degree	No HS Diploma/ Equivalent	HS Grad/ Equivalent	Higher Degree	No HS Diploma/ Equivalent	HS Grad/ Equivalent	Higher Degree
United States	13.7%	48.9%	37.4%	12.4%	48.1%	39.5%	13.0%	48.5%	38.5%
State of Colorado	9.6%	44.2%	46.2%	8.4%	43.6%	48.0%	9.0%	43.9%	47.1%
Adams	19.4%	51.3%	29.3%	16.3%	51.2%	32.5%	17.8%	51.2%	30.9%
Alamosa	17.3%	55.4%	27.3%	15.1%	50.6%	34.3%	16.2%	52.9%	30.9%
Arapahoe	8.0%	42.7%	49.4%	7.4%	43.3%	49.3%	7.7%	43.0%	49.4%
Archuleta	9.4%	46.5%	44.1%	7.9%	48.4%	43.8%	8.6%	47.4%	43.9%
Baca	17.4%	57.0%	25.6%	10.3%	54.3%	35.4%	13.7%	55.6%	30.7%
Bent	17.1%	68.6%	14.3%	12.8%	55.6%	31.6%	15.8%	64.5%	19.7%
Boulder	6.2%	27.7%	66.1%	4.9%	30.4%	64.7%	5.5%	29.1%	65.4%
Broomfield	4.0%	36.4%	59.6%	3.9%	34.9%	61.2%	3.9%	35.6%	60.4%
Chaffee	10.5%	47.8%	41.7%	5.8%	48.4%	45.8%	8.3%	48.1%	43.6%
Cheyenne	12.2%	54.0%	33.8%	6.4%	54.8%	38.8%	9.4%	54.4%	36.2%
Clear Creek	1.7%	42.1%	56.2%	4.6%	45.5%	50.0%	3.1%	43.8%	53.2%
Conejos	15.6%	62.4%	22.0%	16.5%	59.5%	24.0%	16.0%	61.0%	23.0%
Costilla	20.7%	56.0%	23.3%	25.6%	51.7%	22.7%	23.0%	54.0%	23.0%
Crowley	20.6%	67.0%	12.4%	11.7%	51.2%	37.1%	17.2%	60.9%	21.9%
Custer	8.8%	48.9%	42.4%	7.8%	57.7%	34.5%	8.3%	53.3%	38.4%
Delta	14.5%	62.2%	23.3%	9.5%	59.3%	31.2%	12.0%	60.8%	27.2%
Denver	14.0%	35.9%	50.1%	13.3%	34.8%	51.9%	13.6%	35.3%	51.0%
Dolores	10.6%	63.0%	26.4%	7.5%	58.4%	34.1%	9.1%	60.8%	30.1%
Douglas	2.3%	29.4%	68.3%	1.9%	35.0%	63.1%	2.1%	32.3%	65.6%
Eagle	11.2%	35.6%	53.2%	11.2%	31.9%	56.9%	11.2%	33.9%	54.9%
Elbert	3.9%	55.4%	40.8%	3.3%	50.4%	46.3%	3.6%	52.9%	43.5%

[10] Colorado Department of Education. Fall 2016 Pupil Membership. http://www.cde.state.co.us/cdereval/pupilcurrent

[11] U.S. Census Bureau, 2016 ACS 5-year Estimate Data Table B15002 (geography: Colorado Counties, State of Colorado & United States) http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

El Paso	6.1%	45.5%	48.3%	6.0%	46.5%	47.5%	6.1%	46.0%	47.9%
Fremont	13.6%	66.6%	19.8%	7.8%	60.9%	31.3%	11.3%	64.3%	24.4%
Garfield	14.4%	50.9%	34.7%	11.7%	47.9%	40.4%	13.1%	49.5%	37.5%
Gilpin	2.5%	63.4%	34.1%	1.5%	50.1%	48.5%	2.0%	57.0%	41.0%
Grand	3.7%	51.4%	44.9%	5.0%	44.2%	50.9%	4.3%	48.1%	47.6%
Gunnison	5.2%	39.2%	55.6%	4.0%	32.2%	63.8%	4.7%	36.0%	59.4%
Hinsdale	8.4%	47.1%	44.5%	2.0%	49.9%	48.2%	5.1%	48.5%	46.4%
Huerfano	9.2%	57.9%	32.9%	8.2%	53.3%	38.6%	8.7%	55.6%	35.8%
Jackson	15.7%	61.5%	22.8%	8.7%	64.0%	27.3%	12.2%	62.8%	25.0%
Jefferson	6.2%	43.7%	50.1%	5.5%	43.7%	50.8%	5.8%	43.7%	50.5%
Kiowa	7.6%	60.3%	32.1%	6.6%	66.7%	26.7%	7.1%	63.6%	29.3%
Kit Carson	18.7%	63.1%	18.2%	13.4%	60.9%	25.7%	16.5%	62.2%	21.3%
Lake	5.8%	54.2%	40.0%	8.9%	49.6%	41.5%	7.2%	52.1%	40.7%
La Plata	5.8%	48.6%	45.6%	4.6%	39.7%	55.7%	5.2%	44.1%	50.7%
Larimer	4.9%	41.7%	53.3%	3.8%	41.2%	55.0%	4.3%	41.5%	54.2%
Las Animas	13.9%	56.6%	29.5%	14.6%	52.7%	32.7%	14.2%	54.7%	31.1%
Lincoln	19.3%	69.8%	10.9%	6.9%	59.9%	33.1%	14.8%	66.2%	19.0%
Logan	11.9%	62.7%	25.4%	9.2%	56.9%	34.0%	10.7%	60.0%	29.3%
Mesa	11.0%	55.4%	33.6%	9.4%	54.9%	35.7%	10.2%	55.1%	34.7%
Mineral	2.2%	48.9%	48.9%	4.6%	44.7%	50.7%	3.4%	46.8%	49.8%
Moffat	9.3%	66.0%	24.7%	8.6%	64.3%	27.1%	8.9%	65.2%	25.9%
Montezuma	9.6%	56.5%	33.9%	10.1%	54.9%	35.1%	9.8%	55.7%	34.5%
Montrose	12.4%	55.4%	32.2%	10.1%	60.0%	29.8%	11.2%	57.8%	31.0%
Morgan	19.4%	58.4%	22.2%	18.7%	54.9%	26.5%	19.0%	56.6%	24.4%
Otero	15.3%	56.4%	28.3%	13.2%	55.4%	31.4%	14.2%	55.9%	29.9%
Ouray	2.5%	36.3%	61.2%	1.9%	38.7%	59.3%	2.2%	37.6%	60.2%
Park	4.9%	56.7%	38.4%	2.4%	55.8%	41.8%	3.7%	56.3%	40.0%
Phillips	11.2%	54.9%	33.9%	10.6%	57.3%	32.1%	10.9%	56.1%	33.0%
Pitkin	3.2%	33.2%	63.6%	6.2%	25.4%	68.5%	4.6%	29.5%	65.9%
Prowers	17.9%	56.9%	25.2%	16.8%	54.2%	29.0%	17.4%	55.5%	27.1%
Pueblo	12.3%	58.0%	29.7%	11.2%	52.8%	35.9%	11.8%	55.3%	32.9%
Rio Blanco	10.0%	61.0%	29.0%	6.3%	58.2%	35.5%	8.2%	59.6%	32.2%
Rio Grande	19.0%	54.8%	26.2%	14.4%	55.2%	30.5%	16.6%	55.0%	28.4%
Routt	3.7%	42.3%	54.0%	3.2%	36.9%	59.9%	3.5%	39.7%	56.8%
Saguache	21.0%	52.1%	27.0%	17.4%	50.7%	31.9%	19.2%	51.4%	29.5%
San Juan	0.0%	58.3%	41.7%	9.5%	44.6%	45.9%	4.6%	51.6%	43.8%
San Miguel	6.1%	33.8%	60.1%	7.6%	31.0%	61.4%	6.8%	32.5%	60.7%
Sedgwick	11.4%	57.0%	31.5%	6.5%	64.8%	28.7%	8.8%	61.1%	30.0%
Summit	5.9%	43.0%	51.1%	4.7%	29.2%	66.1%	5.3%	36.8%	57.9%
Teller	6.4%	50.2%	43.4%	4.8%	48.8%	46.4%	5.6%	49.5%	44.8%
Washington	10.6%	63.1%	26.3%	6.7%	65.9%	27.3%	8.7%	64.5%	26.8%
Weld	14.3%	52.7%	33.0%	11.7%	50.0%	38.3%	13.0%	51.4%	35.6%
Yuma	12.9%	60.1%	27.0%	13.0%	55.4%	31.7%	12.9%	57.7%	29.4%

Source: U.S. Census Bureau, 2016 Census ACS 5-year Estimate Data Tables, Education Attainment by County, state of Colorado and United States Table B15002.

Higher Degree includes those who completed an Associate's, Bachelor's, Master's, Professional, and/or Doctorate Degree.

People in Correctional Facilities

According to data from the Colorado Department of Corrections, 20,179 people were incarcerated in 2016; this was a decrease from 2015 when 20,678 people were incarcerated. Twenty state correctional facilities housed 13,898 inmates, and the remaining 6,780 inmates were housed in contract facilities or county jails.[12] Seven CDOC facilities are located in Fremont County.

[12] Colorado Department of Corrections. Statistical Report, Fiscal Year 2016. https://www.colorado.gov/pacific/cdoc/departmental-reports-and-statistics

Epidemiological Trends in HIV in Colorado

Summary

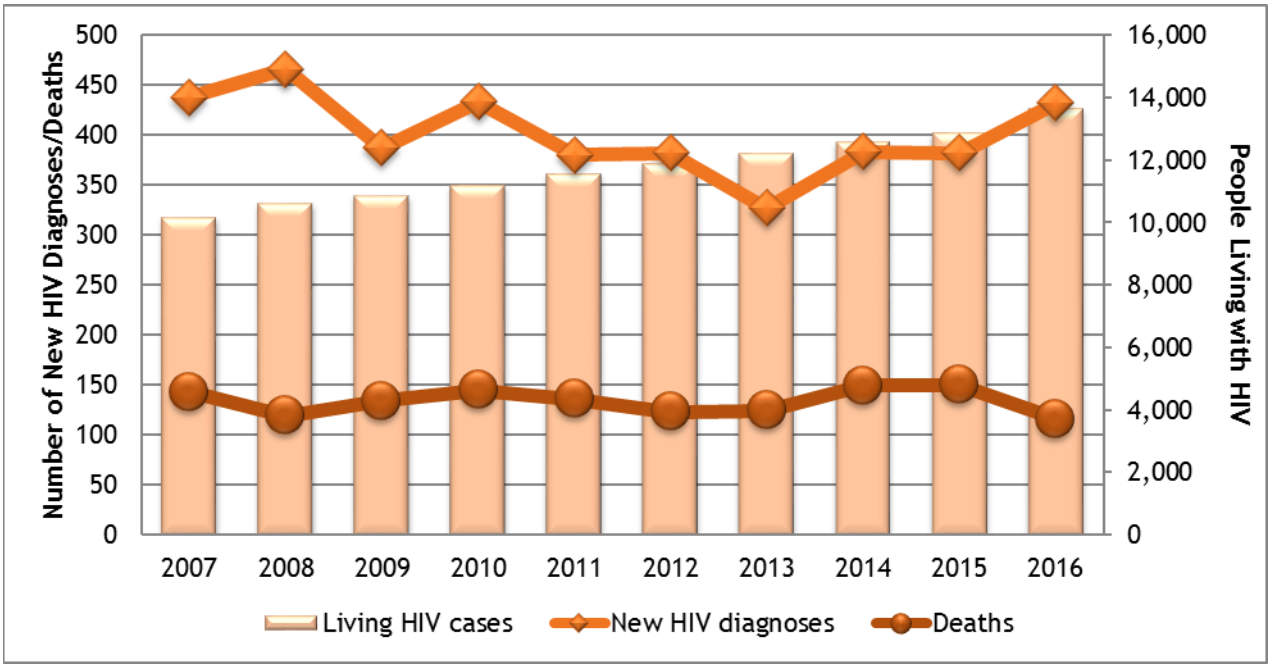
- By the end of 2016, an estimated 13,681 Colorado residents were living with HIV.
- Of the total number of people diagnosed with HIV in 2016, 46.5% were Non-Hispanic White, 35.0% were Hispanic and 14.6% were Non-Hispanic Black.
- Non-Hispanic Blacks and Hispanics continued to be disproportionately affected by HIV. Non-Hispanic Blacks represent 16.0% of PLHIV (prevalent cases of HIV) and 14.6% of new diagnoses while comprising only 4.2% of Colorado's population. Hispanics of all races represent 20.5% of PLHIV and 35.0% of new diagnoses while comprising 22.5% of Colorado's population.
- More than nine-tenths (92.1%) of newly diagnosed HIV cases were reported in urban counties.

A cumulative 20,252 cases of HIV have been reported in Colorado since 1982, and an estimated 13,681 people were living with HIV in Colorado through the end of 2016, which is a rate of 247.0 people per 100,000 population.

New HIV Diagnosis in Colorado

Figure 2.1 shows the number of newly diagnosed HIV cases, people living with HIV and deaths among people living with HIV. It depicts a slow downward trend in the new diagnoses through 2013 followed by an increase through 2016. A steady downward trend in deaths among PLHIV is also displayed. Both of these factors have contributed to the third aspect of the chart, the steady increase in PLHIV in Colorado.

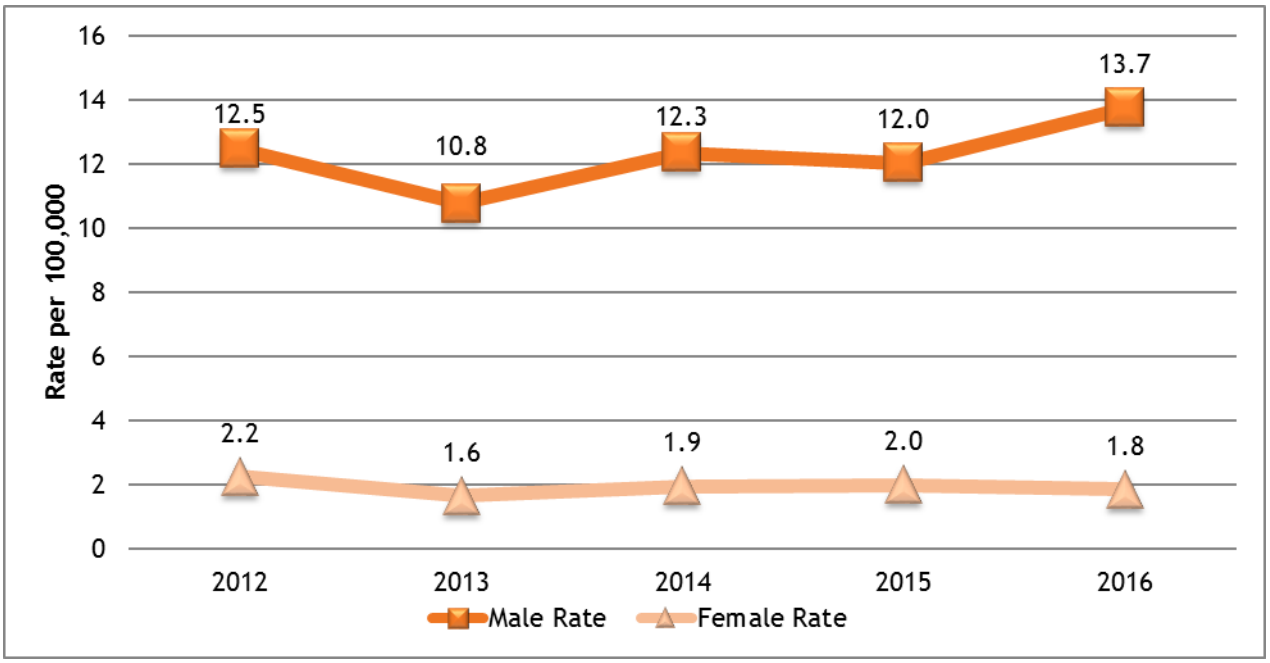
Figure 2.1: New HIV Diagnoses, Deaths and Prevalence by Year - Colorado (2007-2016)



New HIV Diagnoses by Sex

Figure 2.2 below shows the rates in HIV over a five-year period by sex. As expected, the rate among males is higher than that in females; however, it also shows that the rate has a slight increasing trend, whereas females have remained steady.

Figure 2.2: New HIV Rate per 100,000 Population by Sex – Colorado (2012-2016)



New HIV Diagnoses by Race/Ethnicity

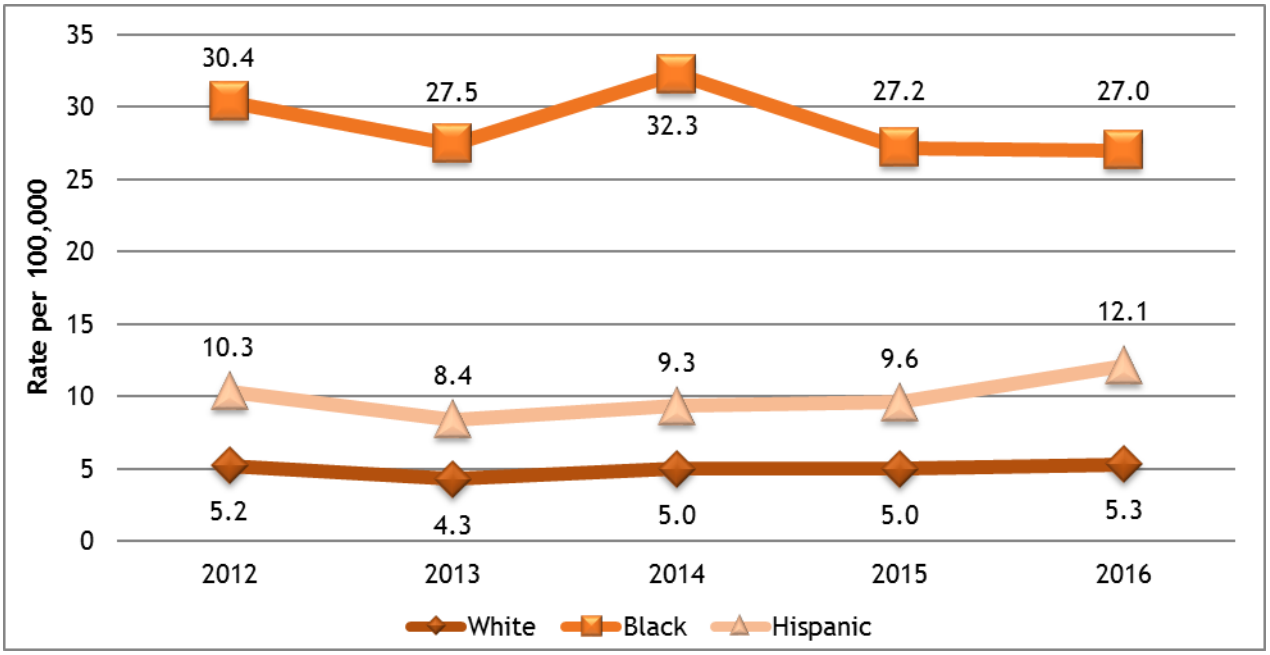
In 2016, 432 people were newly diagnosed with HIV. Of those, 381 (88.2%) were male and 51 (11.8%) were female. By race/ethnicity, 201 (46.5%) were Non-Hispanic White, 151 (35.0%) were Hispanic, 63 (14.6%) were Non-Hispanic Black, 6 (1.4%) were Non-Hispanic Asian/Pacific Islander, and 5 (1.2%) were Non-Hispanic Native American/Alaska Native (**Table 2.1**). By sex, a greater proportion of females identified as Non-Hispanic Blacks (43.1%) compared to males (10.8%).

Table 2.1: New HIV Diagnoses by Sex and Race/Ethnicity - Colorado (2016)

	Male			Female			Total	
Race/Ethnicity	N	Row %	Column %	N	Row %	Column %	N	Column %
White, Non-Hispanic	183	91.0	48.0	18	9.0	35.3	201	46.5
Hispanic, all races	143	94.7	37.5	8	5.3	15.7	151	35.0
Black, Non-Hispanic	41	65.1	10.8	22	34.9	43.1	63	14.6
Asian/Hawaiian/Pacific Islander, Non-Hispanic	4	66.7	1.0	2	33.3	3.9	6	1.4
Native American/Alaskan Native, Non-Hispanic	5	100.0	1.3	0	0.0	0.0	5	1.2
Two or More Races, Non-Hispanic	5	83.3	1.3	1	16.7	2.0	6	1.4
Total	381	88.2	100	51	11.8	100	432	100

Although Non-Hispanic Whites represent the largest number of HIV cases, Non-Hispanic Blacks, and to a lesser degree, Hispanics, are disproportionately affected by this epidemic. **Figure 2.3** demonstrates trends in rates of people reported with an HIV diagnosis. Non-Hispanic Blacks had an HIV rate 5.1 times greater than that of Non-Hispanic Whites in 2016.

Figure 2.3: HIV Rate per 100,000 Population by Race/Ethnicity - Colorado (2012-2016)



Other racial categories not shown due to small counts and unreliable rates.

New HIV Diagnoses by Transmission Category

Table 2.2 displays HIV cases diagnosed in 2016 by transmission category and sex. The largest proportion of males (68.8%) was classified as MSM. High-risk heterosexual contact continued to be the largest known transmission factor for females, accounting for 27.5% of the female cases. Females also had a higher percentage (51.0%) of unknown transmission category compared to males (11.8%). The 2016 new HIV diagnosis with pediatric transmission was born in a foreign country, who immigrated with their mother into the country. Mother and child established care and were reported to CDPHE in 2016.

Table 2.2: New HIV Diagnoses by Sex and Transmission Category Reported - Colorado (2016)

Transmission Category	Male			Female			Total	
	N	Row %	Column %	N	Row %	Column %	N	Column %
MSM	262	100	68.8	---	---	---	262	60.6
IDU	18	64.3	4.7	10	35.7	19.6	28	6.5
MSM/IDU	46	100	12.1	---	---	---	46	10.6
Heterosexual Contact	10	41.7	2.6	14	58.3	27.5	24	5.6
Pediatric	0	0.0	0.0	1	100.0	2.0	1	0.2
Transfusion/Hemophilia	0	0.0	0.0	0	0.0	0.0	0	0.0
Unknown	45	63.4	11.8	26	36.6	51.0	71	16.4
Total	381	88.2	88.2	51	11.8	11.8	432	100

New HIV Diagnoses by Age

Table 2.3 describes the 432 cases of newly diagnosed HIV by sex and age group at diagnosis and sex. Females had a higher percentage of cases in the 40-44 and 45-49 age groups (15.7% in females versus 7.1% of males for both age groups). The majority of male cases (58.8%) were in the 20-34 age range. The age group for females are more dispersed where five 5-year age groups were needed to get a majority (52.9% for 20-44 age range).

Table 2.3: New HIV Diagnoses by Sex and Age Group - Colorado (2016)

Age Group	Male			Female			Total	
	N	Row %	Column %	N	Row %	Column %	N	Column %
<10	0	0.0	0.0	0	0.0	0.0	0	0.0
10-14	0	0.0	0.0	0	0.0	0.0	0	0.0
15-19	8	66.7	2.1	4	33.3	7.8	12	2.8
20-24	70	93.3	18.4	5	6.7	9.8	75	17.4
25-29	97	93.3	25.5	7	6.7	13.7	104	24.1
30-34	57	93.4	15.0	4	6.6	7.8	61	14.1
35-39	39	92.9	10.2	3	7.1	5.9	42	9.7
40-44	27	77.1	7.1	8	22.9	15.7	35	8.1
45-49	27	77.1	7.1	8	22.9	15.7	35	8.1
50-54	30	88.2	7.9	4	11.8	7.8	34	7.9
55-59	16	80.0	4.2	4	20.0	7.8	20	4.6
60-64	7	77.8	1.8	2	22.2	3.9	9	2.1
>65	3	60.0	0.8	2	40.0	3.9	5	1.2
Total	381	88.2	100	51	11.8	100	432	100

New HIV Diagnoses by Stage at Diagnosis

A late stage diagnosis is defined as a Stage 3 (AIDS) diagnosis within 365 days of an initial HIV diagnosis. As **Figure 2.4** demonstrates, the overall number and percentage of late stage diagnosed cases has been relatively consistent for the last 10 years with a downward trend in the last few years. The percentage has ranged from 22.7 to 37.6%. In 2016, 22.7% (98 of 432) of new HIV diagnoses were late stage HIV diagnoses. The percent of late stage HIV diagnoses decreased from 28.3% in 2015 to 22.7% in 2016, which is a 19.8% decrease. This can partly be attributed to the increase in the total new diagnoses from 2015 (N=382) to 2016 (N=432). While, the actual number of late stage HIV diagnoses decreased less dramatically from 108 in 2015 to 98 in 2016, resulting in a 9.3% decrease.

Figure 2.4: New HIV Diagnoses and Late Stage Diagnoses Percentage - Colorado (2007-2016)

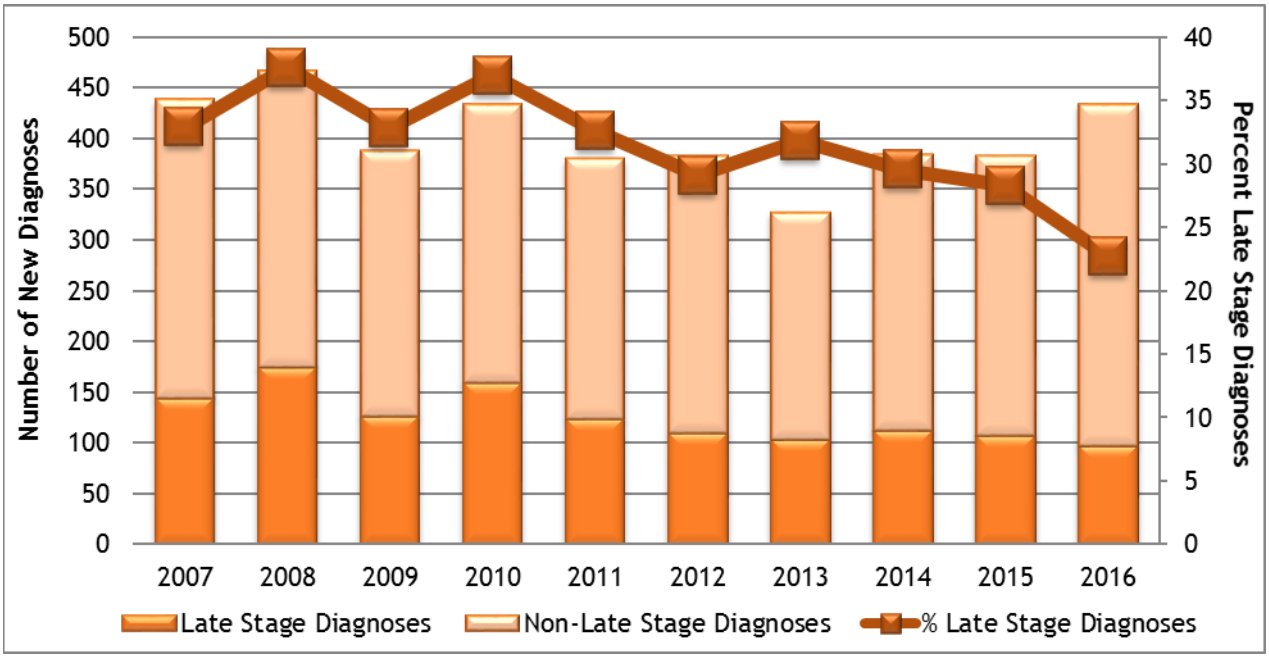


Table 2.4: Characteristics of New HIV Diagnoses by Late Stage - Colorado (2016)

	Late Stage Diagnosis			Non-Late Stage Diagnosis			Total	
	N	Row %	Column %	N	Row %	Column %	N	Column %
Total	98	22.7	100	334	77.3	100	432	100
Sex								
Male	86	22.6	87.8	295	77.4	88.3	381	88.2
Female	12	23.5	12.2	39	76.5	11.7	51	11.8
Race/Ethnicity								
White, Non-Hispanic	44	21.9	44.9	157	78.1	47.0	201	46.5
Hispanic, all races	34	22.5	34.7	117	77.5	35.0	151	35.0
Black, Non-Hispanic	15	23.8	15.3	48	76.2	14.4	63	14.6
Asian/Pacific Islander, Non-Hispanic	2	33.3	2.0	4	66.7	1.2	6	1.4
Native American/Alaskan Native, Non-Hispanic	1	20.0	1.0	4	80.0	1.2	5	1.2
Multiple Races, Non-Hispanic	2	33.3	2.0	4	66.7	1.2	6	1.4
Age Group at HIV Diagnosis								
<10	0	0.0	0.0	0	0.0	0.0	0	0.0
10-14	0	0.0	0.0	0	0.0	0.0	0	0.0

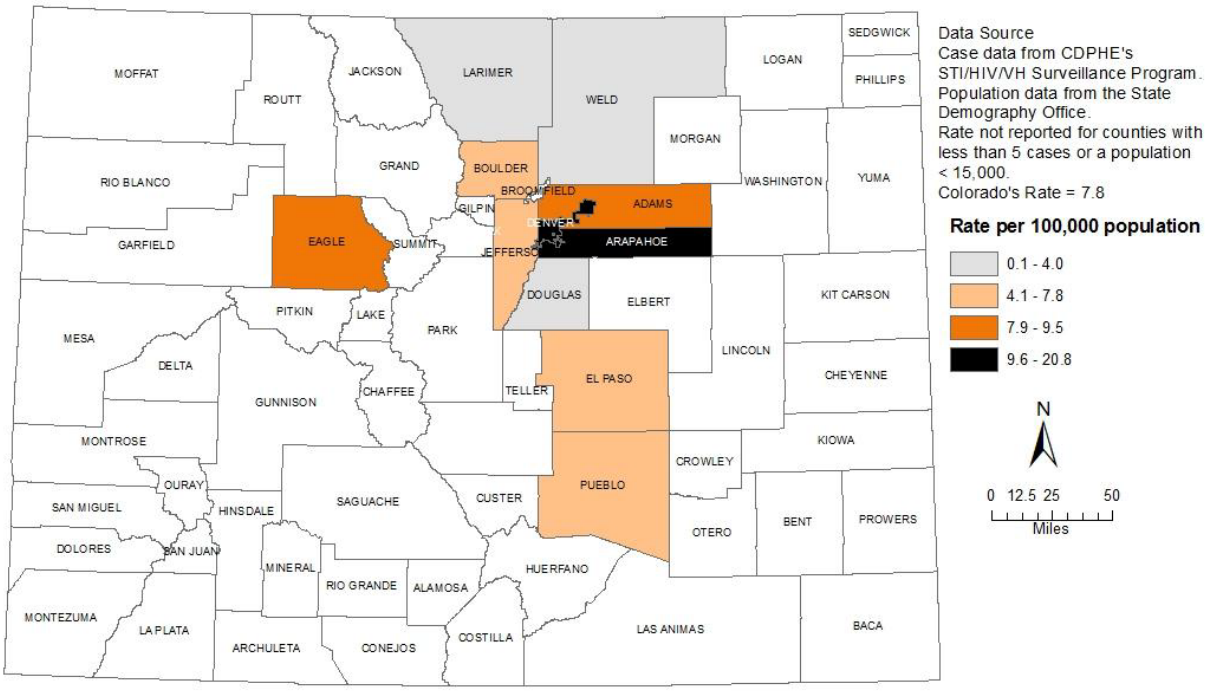
15-19	1	8.3	1.0	11	91.7	3.3	12	2.8
20-24	6	8.0	6.1	69	92.0	20.7	75	17.4
25-29	12	11.5	12.2	92	88.5	27.5	104	24.1
30-34	16	26.2	16.3	45	73.8	13.5	61	14.1
35-39	17	40.5	17.3	25	59.5	7.5	42	9.7
40-44	11	31.4	11.2	24	68.6	7.2	35	8.1
45-49	9	25.7	9.2	26	74.3	7.8	35	8.1
50-54	13	38.2	13.3	21	61.8	6.3	34	7.9
55-59	8	40.0	8.2	12	60.0	3.6	20	4.6
60-64	4	44.4	4.1	5	55.6	1.5	9	2.1
>65	1	20.0	1.0	4	80.0	1.2	5	1.2
Transmission Category								
MSM	51	19.5	52.0	211	80.5	63.2	262	60.6
IDU	4	14.3	4.1	24	85.7	7.2	28	6.5
MSM/IDU	9	19.6	9.2	37	80.4	11.1	46	10.6
Heterosexual Contact	5	20.8	5.1	19	79.2	5.7	24	5.6
Pediatric	1	100.0	1.0	0	0.0	0.0	1	0.2
Transfusion/Hemophilia	0	0.0	0.0	0	0.0	0.0	0	0.0
Unknown	28	39.4	28.6	43	60.6	12.9	71	16.4
Region								
Urban	90	22.6	91.8	308	77.4	92.2	398	92.1
Rural	8	23.5	8.2	26	76.5	7.8	34	7.9
Birth Country								
United States (50 states)	50	18.7	51.0	217	81.3	65.0	267	61.8
Unknown	29	25.2	29.6	86	74.8	25.7	115	26.6
Foreign-born	19	38.0	19.4	31	62.0	9.3	50	11.6
African	9	42.9	47.4	12	57.1	38.7	21	42.0
Asian	2	40.0	10.5	3	60.0	9.7	5	10.0
C. American	0	0.0	0.0	1	100.0	3.2	1	2.0
S. American	3	100.0	15.8	0	0.0	0.0	3	6.0
European	0	0.0	0.0	1	100.0	3.2	1	2.0
Mexico	1	50.0	5.3	1	50.0	3.2	2	4.0
Other	4	23.5	21.1	13	76.5	41.9	17	34.0

As shown in **Table 2.4**, people born outside the U.S. comprise a larger percent of late stage diagnosed cases (19.4%) compared to non-late stage diagnosed cases (9.3%). Late stage diagnosed cases tended to be older than non-late stage diagnosed cases with a larger percentage in the 35-54 year old age group (51% vs. 28.7%). Of those late stage diagnoses who were foreign-born, 47.4% were from Africa, 21.1% were from Mexico and the remainder was from Asia, Europe, South and Central America.

Geographical Characteristics of New HIV Diagnoses

Figure 2.5 demonstrates that the highest rates of new HIV diagnoses in Colorado was in Denver and Arapahoe counties. Counties with fewer than five reported cases or with a population less than 15,000 are not included on this map. This suppression policy allowed only 11 of the 64 counties to be displayed, most of which are in the Front Range.

Figure 2.5: New HIV Diagnosis Rate per 100,000 Population by County of Residence at Time of Diagnosis – Colorado (2016)



People Living with HIV in Colorado

By the end of 2016, there were an estimated 13,681 PLHIV in Colorado, an increase of 14.9% from 11,907 in 2012. This is partly due to HIV becoming a manageable chronic condition and a decrease in deaths among PLHIV.

Table 2.5 illustrates the demographic characteristics of PLHIV. Males represented the majority (87.4%) of PLHIV. Non-Hispanic Whites constituted the largest racial group living with HIV, representing 60.2% of cases. Non-Hispanic Blacks continued to be disproportionately affected by the epidemic. Although the percentage of Coloradans who identify as Non-Hispanic Black was 4.2%, Non-Hispanic Blacks represented 16.0% of PLHIV. Men who have sex with men was the predominant transmission category group, representing 63.1% of PLHIV. The majority (93.3%) of PLHIV lived in the urban counties of Colorado.

Table 2.5: Characteristics of People Living with HIV Through 12/31/16 - Colorado

	Male			Female			Total	
	N	Row %	Column %	N	Row %	Column %	N	Column %
Total	11,956	87.4	100	1,725	12.6	100	13,681	100
Race/Ethnicity								
White, Non-Hispanic	7,567	91.9	63.3	665	8.1	38.6	8,232	60.2
Hispanic, all races	2,460	87.6	20.6	348	12.4	20.2	2,808	20.5
Black, Non-Hispanic	1,572	72.0	13.1	612	28.0	35.5	2,184	16.0
Asian/Pacific Islander, Non-Hispanic	131	76.6	1.1	40	23.4	2.3	171	1.2
Native American/Alaskan Native, Non-Hispanic	62	70.5	0.5	26	29.5	1.5	88	0.6
Multiple Races, Non-Hispanic	116	81.1	1.0	27	18.9	1.6	143	1.0
Unknown	48	87.3	0.4	7	12.7	0.4	55	0.4
Transmission Category								
MSM	8,626	100.0	72.1	---	---	---	8,626	63.1
IDU	566	63.0	4.7	332	37.0	19.2	898	6.6
MSM/IDU	1,420	100.0	11.9	---	---	---	1,420	10.4
Heterosexual Contact	456	33.1	3.8	922	66.9	53.4	1,378	10.1
Pediatric	63	48.5	0.5	67	51.5	3.9	130	1.0
Transfusion/Hemophilia	26	70.3	0.2	11	29.7	0.6	37	0.3
Unknown	799	67.0	6.7	393	33.0	22.8	1,192	8.7
Region								
Urban	11,178	87.6	93.5	1,589	12.4	92.1	12,767	93.3
Rural	653	86.0	5.5	106	14.0	6.1	759	5.5
Frontier	112	80.0	0.9	28	20.0	1.6	140	1.0
Unknown	13	86.7	0.1	2	13.3	0.1	15	0.1
Current Age Group								
<20	45	47.4	0.4	50	52.6	2.9	95	0.69
20-24	204	84.0	1.7	39	16.0	2.26	243	1.8
25-29	651	89.8	5.4	74	10.2	4.3	725	5.3
30-34	821	86.9	6.9	124	13.1	7.2	945	6.9
35-39	997	84.3	8.3	186	15.7	10.8	1,183	8.6
40-44	1,047	81.6	8.8	236	18.4	13.7	1,283	9.4
45-49	1,677	85.8	14.0	278	14.2	16.1	1,955	14.3
50-54	2,212	89.0	18.5	272	11.0	15.8	2,484	18.2
55-59	1,837	90.2	15.4	199	9.8	11.5	2,036	14.9
60-64	1,305	90.4	10.9	138	9.6	8.0	1,443	10.5

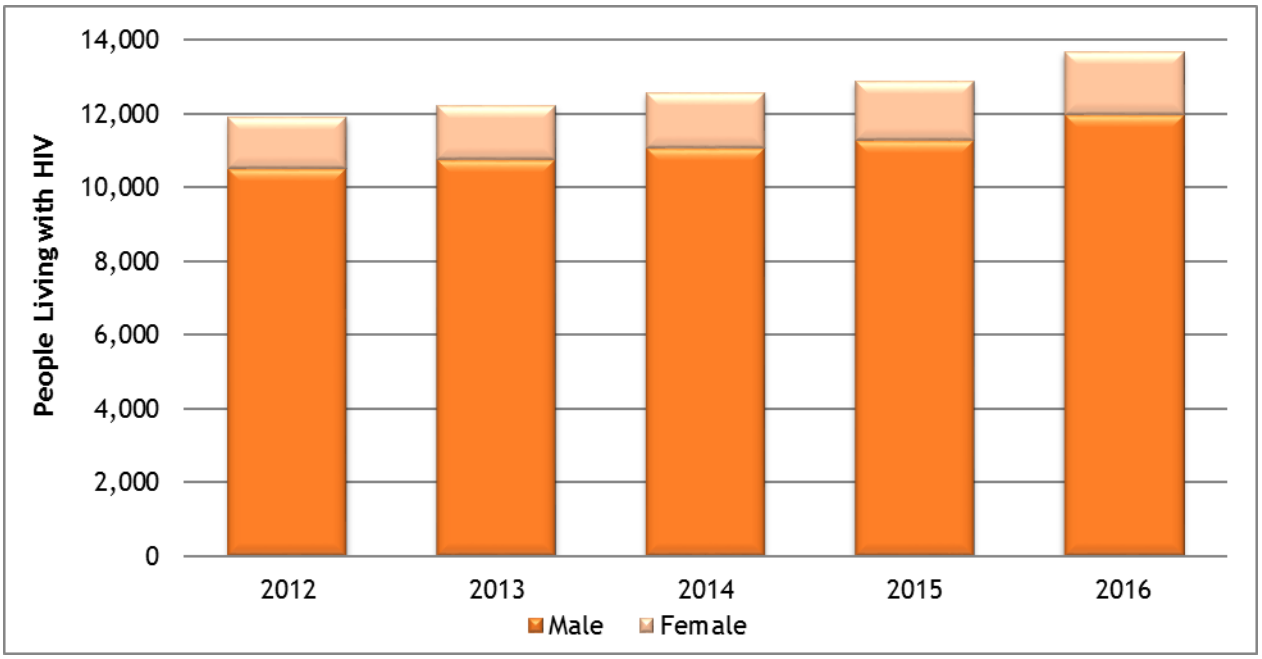
>65	1,160	90.0	9.7	129	10.0	7.5	1,289	9.4
Age Group at HIV Diagnosis								
<10	59	50.4	0.5	58	49.6	3.4	117	0.9
10-14	17	51.5	0.1	16	48.5	0.9	33	0.2
15-19	304	76.4	2.5	94	23.6	5.4	398	2.9
20-24	1,789	88.3	15.0	236	11.7	13.7	2,025	14.8
25-29	2,631	88.8	22.0	332	11.2	19.2	2,963	21.7
30-34	2,477	88.8	20.7	313	11.2	18.1	2,790	20.4
35-39	1,913	88.2	16.0	256	11.8	14.8	2,169	15.9
40-44	1,289	89.5	10.8	152	10.5	8.8	1,441	10.5
45-49	775	87.4	6.5	112	12.6	6.5	887	6.5
50-54	392	86.0	3.3	64	14.0	3.7	456	3.3
55-59	182	77.4	1.5	53	22.6	3.1	235	1.7
60-64	81	77.1	0.7	24	22.9	1.4	105	0.8
>65	47	75.8	0.4	15	24.2	0.9	62	0.5

Current Age calculated as of 12/31/16.

People Living with HIV by Sex

Increases in the number of PLHIV can be observed among both men and women in the last five years (**Figure 2.6**). In 2012, women accounted for 12% of people living with HIV whereas, they accounted for 12.6% of PLHIV as of December 31, 2016.

Figure 2.6: People Living with HIV by Sex – Colorado (2012-2016)



People Living with HIV by Race/Ethnicity

Table 2.6 compares the racial characteristics of 2016 Colorado prevalent HIV cases. The majority of people living with HIV in Colorado were Non-Hispanic White (60.2%). Non-Hispanic Blacks represented a higher percent of PLHIV in Colorado, compared to the Colorado population (16.0% & 4.2%, respectively).

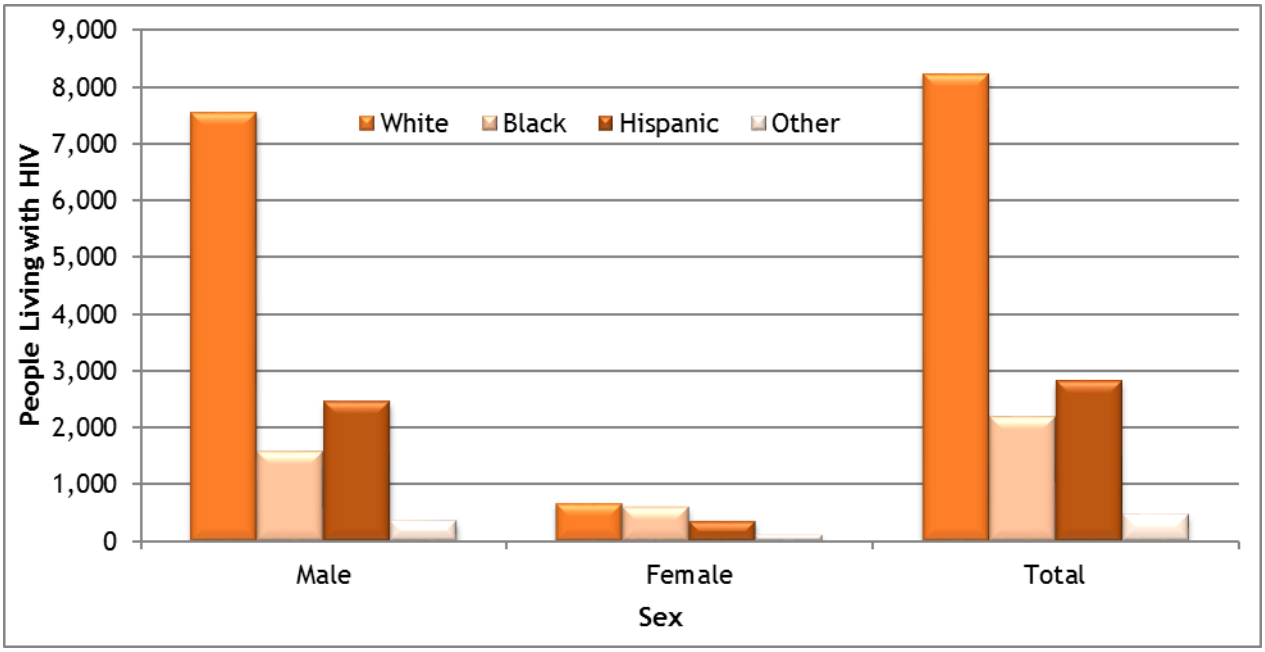
Table 2.6: People Living with HIV Through 12/31/16 by Race/Ethnicity - Colorado

Race/Ethnicity	Non-TGA		TGA		Colorado	
	N	%	N	%	N	%
White, Non-Hispanic	2,135	63.1	6,092	59.2	8,232	60.2
Hispanic, all races	697	20.6	2,110	20.5	2,808	20.5
Black, Non-Hispanic	429	12.7	1,755	17.1	2,184	16.0
Asian/Pacific Islander, Non-Hispanic	49	1.4	122	1.2	171	1.2
Native American/Alaskan Native, Non-Hispanic	33	1.0	55	0.5	88	0.6
Multiple Race, Non-Hispanic	36	1.1	107	1.0	143	1.0
Unknown	4	0.1	42	0.4	55	0.4
Total	3,383	100.0	10,283	100.0	13,681	100.0

State of Colorado includes 15 PLHIV of Unknown County of residence.

The number of PLHIV by race/ethnicity is illustrated in **Figure 2.7**. Non-Hispanic Whites constituted the largest number and percentage of HIV cases in Colorado.

Figure 2.7: People Living with HIV Through 12/31/16 by Sex and Race/Ethnicity – Colorado

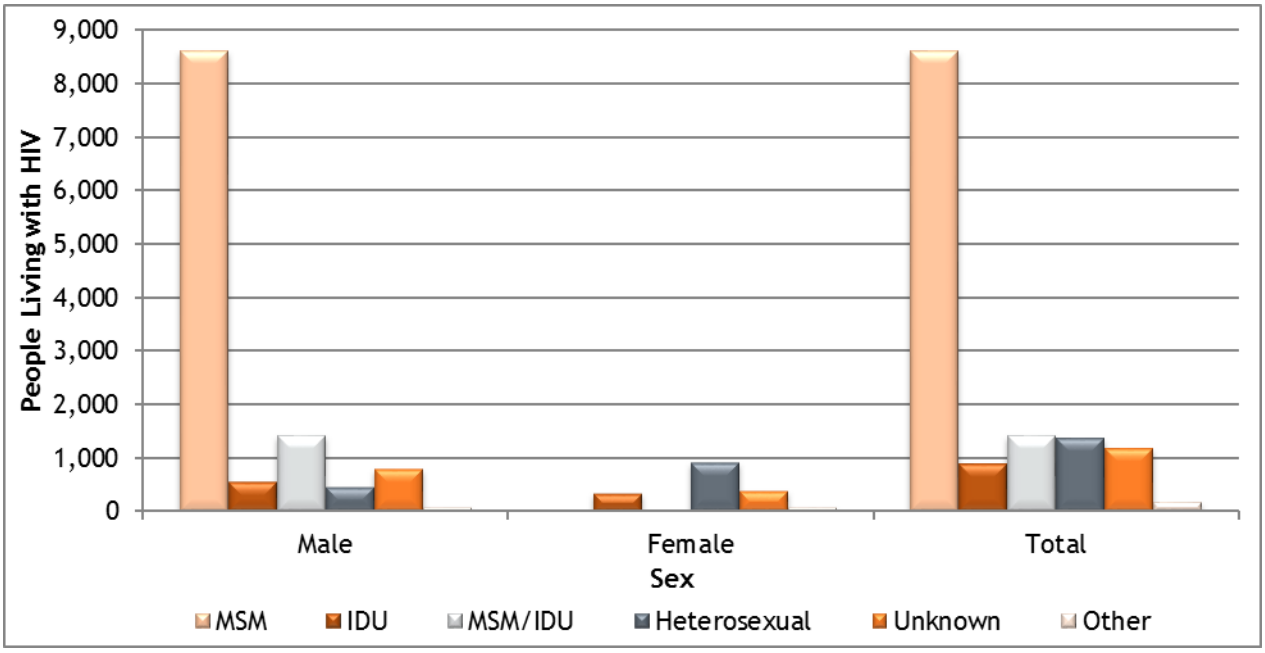


Other includes Non-Hispanic Asian, Non-Hispanic Native Hawaiian/Other Pacific Islander, Non-Hispanic Native American/Alaska Native, Non-Hispanic Multiple Races and Unknown.

People Living with HIV by Transmission Category

Figure 2.8 demonstrates that the majority of PLHIV in Colorado were MSM (8,626 representing 63.1%). MSM/PWID constituted an additional 10.4% (1,420 cases), and PWID constitute 6.6% (898 cases) of PLHIV through 2016. Heterosexual contact continues to have the largest proportion among women (53.4%).

Figure 2.8: People Living with HIV Through 12/31/16 by Sex and Transmission Category Reported – Colorado

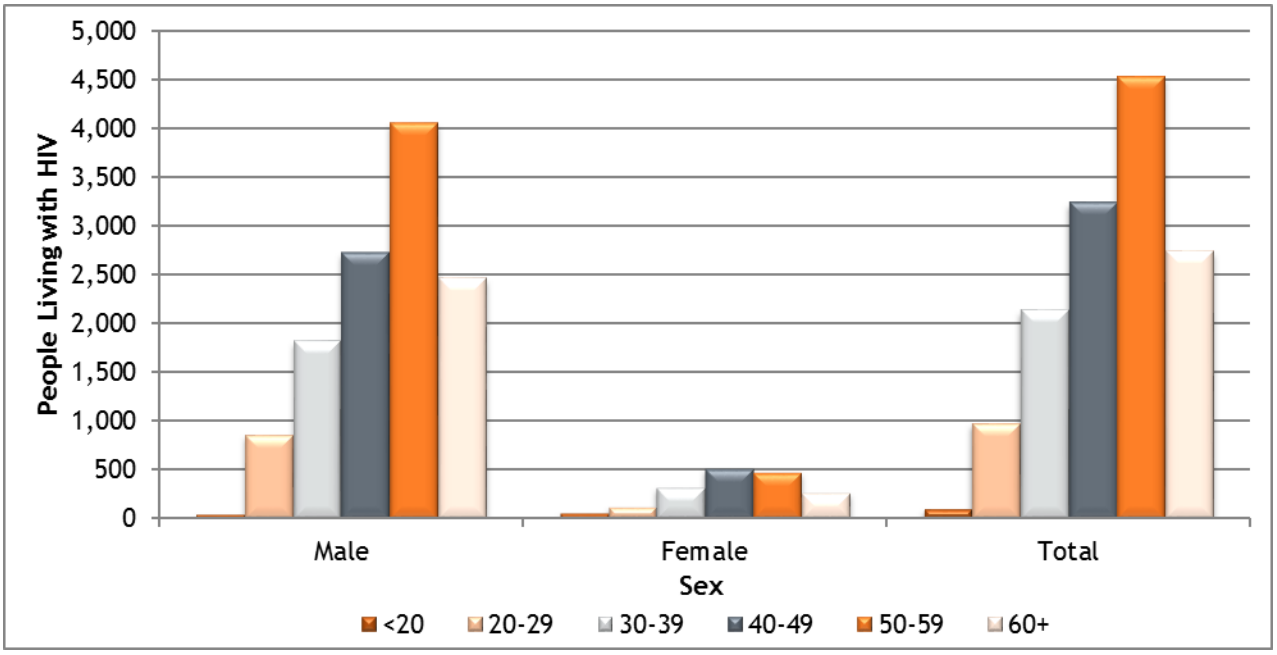


Other may include pediatric, perinatal, hemophilia, transfusion or transplant.

People Living with HIV by Age

Figure 2.9 shows the age distribution by sex of the PLHIV cohort. There has been an increase in 50-59 year olds and 60-69 years olds in the past five years and a decrease in 40-49 year olds. All of the other age groups have seen a slight increase since 2012.

Figure 2.9: People Living with HIV Through 12/31/16 by Sex and Current Age – Colorado

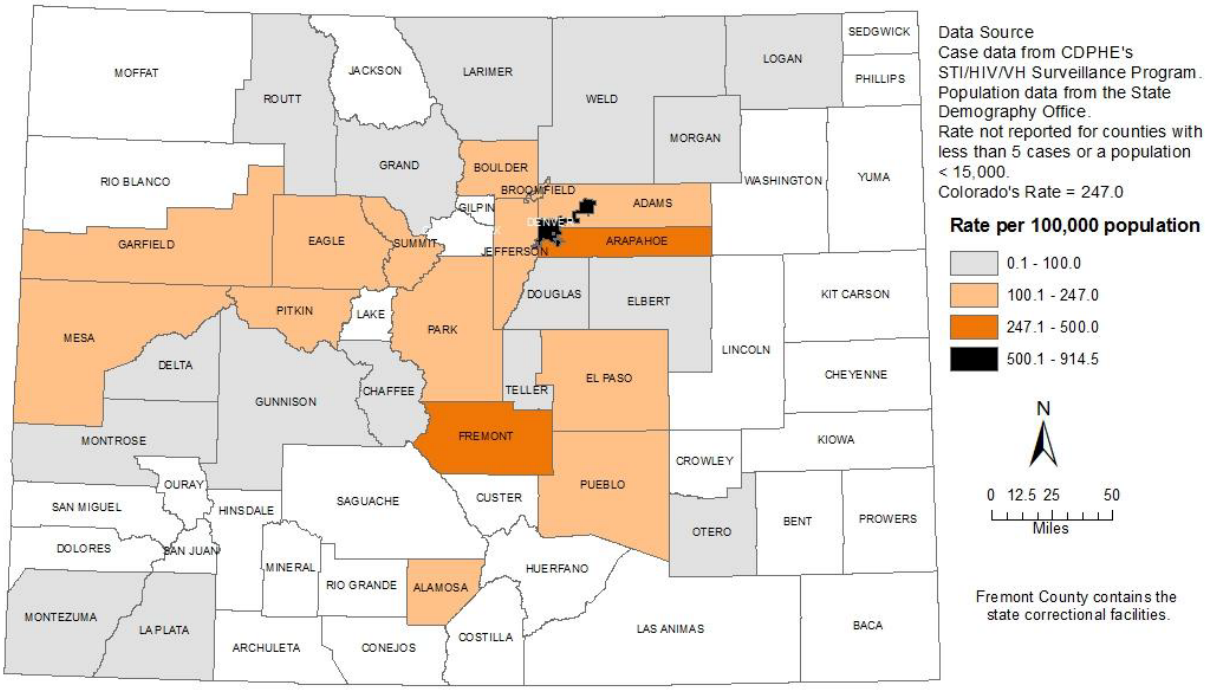


Current Age calculated as of 12/31/16.

Geographical Characteristics of People Living with HIV

Figure 2.10 demonstrates that the highest rates of HIV in Colorado are along the I-25 and I-70 corridors of Adams, Alamosa, Arapahoe, Boulder, Broomfield, Denver, Eagle, El Paso, Fremont, Garfield, Jefferson, Mesa, Park, Pitkin, Pueblo and Summit counties. These sixteen counties represent 90.7% of HIV cases and 72.9% of Colorado's population. This map shows that Fremont County had a disproportionate share of PLHIV cases. The Colorado state correctional facility, where most of the HIV-positive state prisoners are located, is in Fremont County. Due to their incarceration, these cases did not place a burden for HIV care or prevention services on the surrounding rural community. Counties with fewer than five reported cases or with a population less than 15,000 are not included on this map.

Figure 2.10: Living with HIV Rate per 100,000 Population by County of Residence Reported as of 12/31/16 – Colorado



Deaths Among People Living with HIV in Colorado

Similar to **Figure 2.1**, **Figure 2.11** demonstrates the annual number of deaths among people diagnosed with HIV in Colorado. Deaths have been declining between 2007 and 2016, though there is a greater reporting lag for those who died in another state resulting in a possible underestimation of those deaths in the most recent years.

Figure 2.11: Annual Deaths Among People Diagnosed with HIV and Percent Attributed to HIV as an Underlying Cause - Colorado (2007-2016)

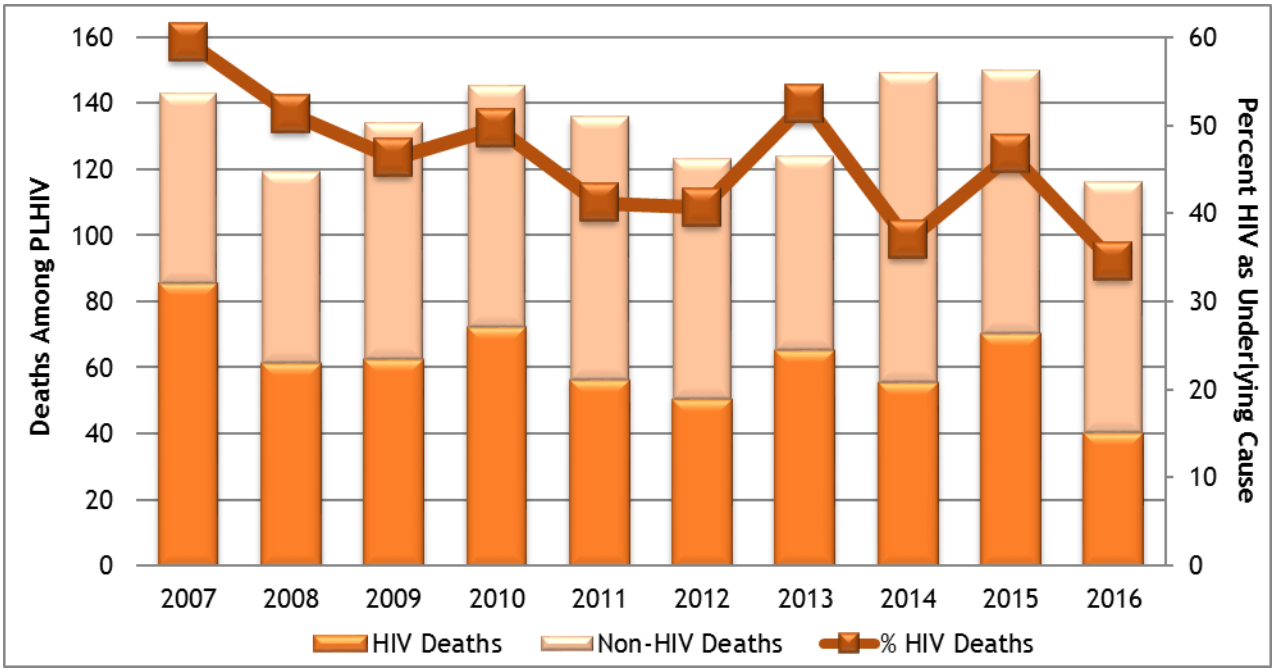


Table 2.7: Demographics of Deaths of People Diagnosed with HIV - Colorado (2012-2016)

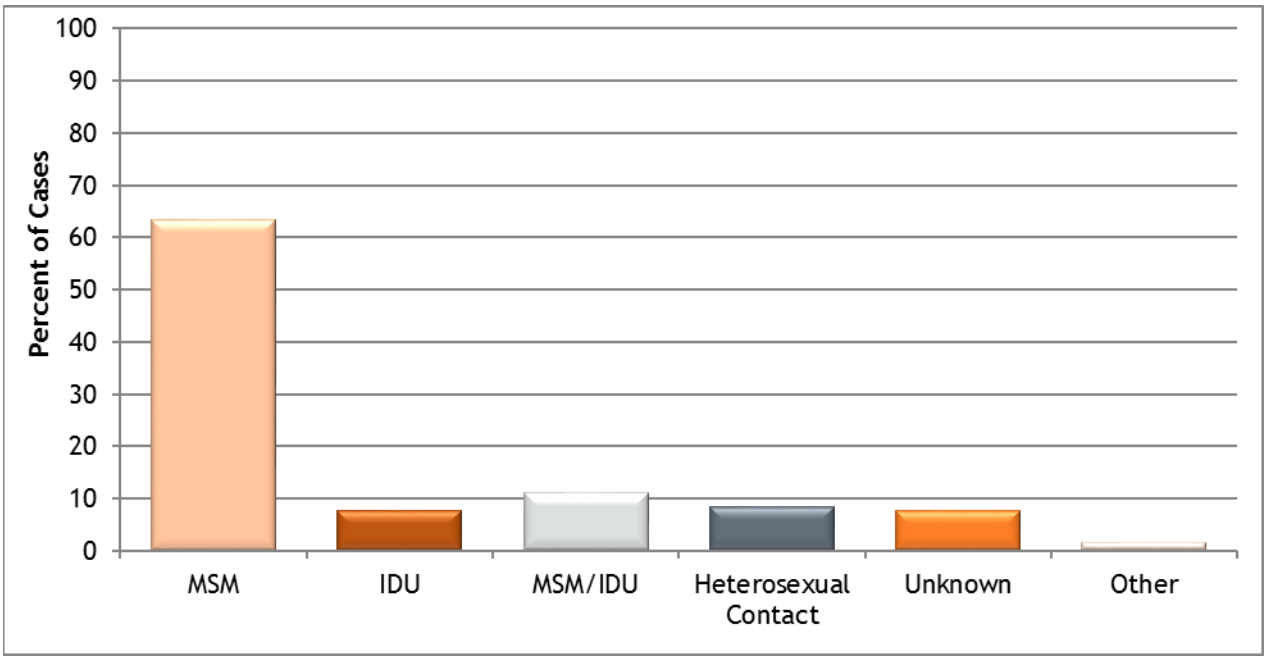
	2012		2013		2014		2015		2016	
	No.	%	No.	%	No.	%	No.	%	No.	%
Total	123	100	124	100	149	100	150	100	116	100
Sex										
Female	12	9.8	7	5.6	14	9.4	15	10.0	13	11.2
Male	111	90.2	117	94.4	135	90.6	135	90.0	103	88.8
Race/Ethnicity										
White, Non-Hispanic	79	64.2	83	66.9	91	61.1	106	70.7	77	66.4
Black, Non-Hispanic	31	25.2	17	13.7	29	19.5	23	15.3	26	22.4
Hispanic, all races	10	8.1	14	11.3	25	16.8	16	10.7	11	9.5
Asian/Pacific Islander, Non-Hispanic	0	0.0	1	0.8	3	2.0	0	0.0	0	0.0
Native American/Alaska Native, Non-Hispanic	2	1.6	5	4.0	0	0.0	3	2.0	1	0.9
Multiple Race, Non-Hispanic	1	0.8	4	3.2	1	0.7	2	1.3	1	0.9
Transmission Category										
MSM	69	56.1	76	61.3	87	58.4	91	60.7	68	58.6
IDU	23	18.7	16	12.9	13	8.7	15	10.0	11	9.5

MSM/IDU	19	15.4	17	13.7	20	13.4	17	11.3	15	12.9
Heterosexual Contact	5	4.1	3	2.4	18	12.1	11	7.3	11	9.5
Pediatric	0	0.0	0	0.0	0	0.0	0	0.0	1	0.9
Transfusion/Hemophilia	1	0.8	0	0.0	0	0.0	1	0.7	0	0.0
Unknown	6	4.9	12	9.7	11	7.4	15	10.0	10	8.6
Age at Initial Diagnosis										
<20	2	1.6	1	0.8	2	1.3	2	1.3	6	5.2
20-29	31	25.2	27	21.8	37	24.8	35	23.3	24	20.7
30-39	44	35.8	43	34.7	67	45.0	47	31.3	37	31.9
40-49	28	22.8	33	26.6	32	21.5	35	23.3	30	25.9
50-59	14	11.4	12	9.7	7	4.7	22	14.7	14	12.1
60+	4	3.3	8	6.5	4	2.7	9	6.0	5	4.3
Age at Death										
<20	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
20-29	4	3.3	3	2.4	5	3.4	1	0.7	3	2.6
30-39	10	8.1	10	8.1	9	6.0	9	6.0	6	5.2
40-49	37	30.1	34	27.4	45	30.2	35	23.3	28	24.1
50-59	45	36.6	48	38.7	54	36.2	56	37.3	44	37.9
60+	27	22.0	29	23.4	36	24.2	49	32.7	35	30.2
Death due to HIV										
Yes	50	40.7	65	52.4	55	36.9	70	46.7	40	34.5
No	72	58.5	57	46.0	93	62.4	77	51.3	64	55.2
Unknown	1	0.8	2	1.6	1	0.7	3	2.0	12	10.3
Years Since Diagnosis at Time of Death										
0-4	11	8.9	22	17.7	15	10.1	24	16.0	19	16.4
5-9	23	18.7	20	16.1	20	13.4	20	13.3	14	12.1
10-14	19	15.4	15	12.1	31	20.8	17	11.3	14	12.1
15-19	30	24.4	27	21.8	26	17.4	28	18.7	22	19.0
20-24	29	23.6	27	21.8	34	22.8	34	22.7	19	16.4
25+	11	8.9	13	10.5	23	15.4	27	18.0	28	24.1

Demographic Characteristics of HIV in Priority Populations

Through December 31, 2016, a cumulative 12,862 cases of HIV were associated with MSM, 1,578 IDU, 2,234 MSM/IDU and 1,702 through heterosexual contact. **Figure 3.1** shows the proportion of the epidemic by transmission category. MSM accounted for 63.5% of Colorado's cumulative HIV cases from years 1982 through 2016, IDU accounted for 7.8%, MSM/IDU accounted for 11% and heterosexual transmission accounted for 8.4%.

Figure 3.1: Cumulative HIV Cases by Transmission Category – Colorado (1982-2016)



Other may include pediatric, perinatal, hemophilia, transfusion or transplant.

Men Who have Sex With Men

Summary

- The majority of Colorado's HIV cases can be attributed to the transmission category of MSM (63.5% MSM-only with an additional 11.0% MSM/IDU of all cumulative cases 1982-2016).
- Over half (53.2%) of 2012-2016 new HIV diagnoses among MSM were in Non-Hispanic Whites.
- The majority of new HIV diagnoses among MSM were 20-34 years old (57.7%).
- 9.1% of new HIV diagnoses among MSM were foreign-born and an additional 9.4% had an unknown country of birth.

This section includes all those who were identified as MSM whether transmission was identified as MSM only or MSM/IDU.

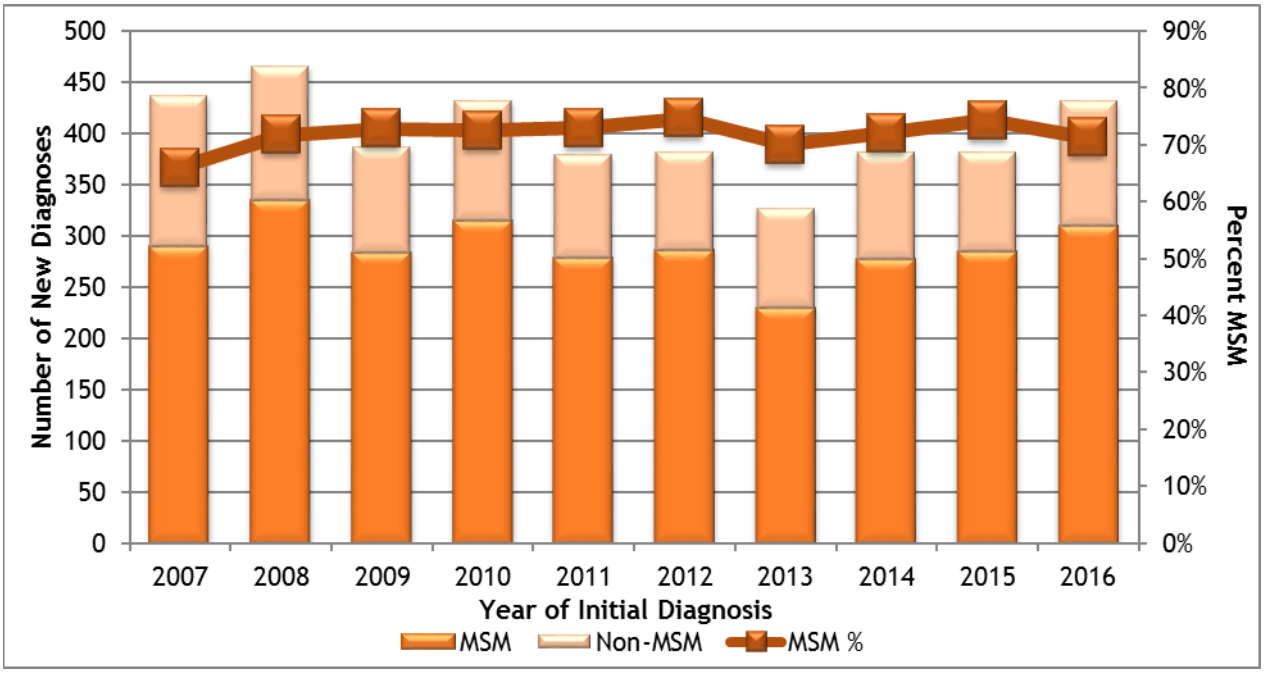
New HIV Diagnoses Among MSM

Table 3.1: Demographics of New HIV Diagnoses Among MSM - Colorado (2012-2016)

	TGA			Non TGA			State of Colorado	
	N	Row %	Column %	N	Row %	Column %	N	Column %
Total	1,047	75.8	100	335	24.2	100.0	1,382	100
Race/Ethnicity								
White, Non-Hispanic	544	74.0	52.0	191	26.0	57.0	735	53.2
Hispanic, all races	338	74.9	32.3	113	25.1	33.7	451	32.6
Black, Non-Hispanic	135	88.8	12.9	17	11.2	5.1	152	11.0
Asian/Pacific Islander, Non-Hispanic	14	73.7	1.3	5	26.3	1.5	19	1.4
Native American/Alaska Native, Non-Hispanic	4	57.1	0.4	3	42.9	0.9	7	0.5
Multiple Races, Non-Hispanic	12	66.7	1.1	6	33.3	1.8	18	1.3
Age Group at Diagnosis								
<20	27	77.1	2.6	8	22.9	2.4	35	2.5
20-24	193	70.7	18.4	80	29.3	23.9	273	19.8
25-29	225	74.3	21.5	78	25.7	23.3	303	21.9
30-34	174	78.4	16.6	48	21.6	14.3	222	16.1
35-39	133	81.1	12.7	31	18.9	9.3	164	11.9
40-44	103	76.9	9.8	31	23.1	9.3	134	9.7
45-49	87	75.0	8.3	29	25.0	8.7	116	8.4
50-54	65	79.3	6.2	17	20.7	5.1	82	5.9
55-59	18	69.2	1.7	8	30.8	2.4	26	1.9
60-64	16	84.2	1.5	3	15.8	0.9	19	1.4
≥65	6	75.0	0.6	2	25.0	0.6	8	0.6
Transmission Category								
MSM	912	75.5	87.1	296	24.5	88.4	1,208	87.4
MSM/IDU	135	77.6	12.9	39	22.4	11.6	174	12.6
Region								
Urban	1,047	80.9	100.0	247	19.1	73.7	1,294	93.6
Rural	0	0.0	0.0	78	100.0	23.3	78	5.6
Frontier	0	0.0	0.0	10	100.0	3.0	10	0.7
Birth Country								

United States (50 states)	867	76.9	82.8	261	23.1	77.9	1,128	81.6
Unknown	84	65.6	8.0	44	34.4	13.1	128	9.3
Foreign-born	96	76.2	9.2	30	23.8	9.0	126	9.1
African	6	75.0	6.3	2	25.0	6.7	8	6.3
Asian	6	75.0	6.3	2	25.0	6.7	8	6.3
Caribbean	2	50.0	2.1	2	50.0	6.7	4	3.2
C. American	8	88.9	8.3	1	11.1	3.3	9	7.1
European	4	57.1	4.2	3	42.9	10.0	7	5.6
Mediterranean	1	100.0	1.0	0	0.0	0.0	1	0.8
Mexico	63	81.8	65.6	14	18.2	46.7	77	61.1
Pacific Island	1	33.3	1.0	2	66.7	6.7	3	2.4
S. American	5	55.6	5.2	4	44.4	13.3	9	7.1
Other/Unknown	0	0.0	0.0	0	0.0	0.0	0	0.0

Figure 3.2: Newly Diagnosed Cases of HIV and Percentage of MSM - Colorado (2007-2016)



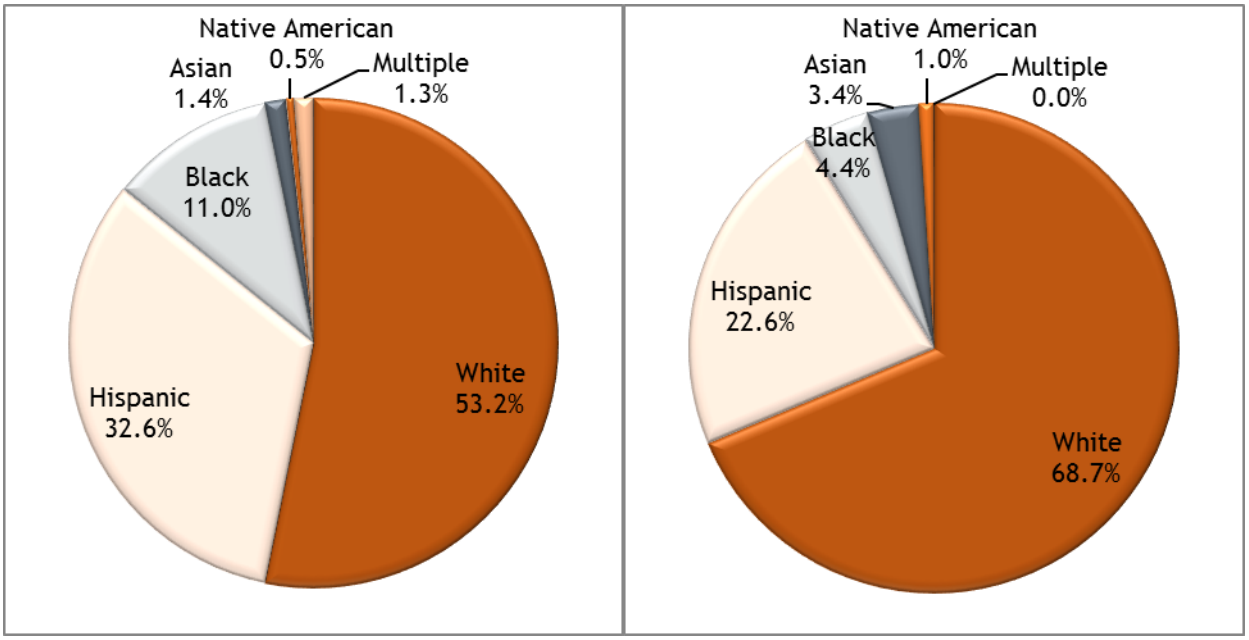
New HIV Diagnoses Among MSM by Race/Ethnicity

As **Figure 3.3** demonstrates, Non-Hispanic Blacks were overrepresented in the HIV proportion among MSM; accounting for 4.4% of Colorado's male population but 11.0% of HIV cases diagnosed in MSM from 2012-2016. Hispanics were also overrepresented (32.6% of newly diagnosed HIV MSM cases) for their proportion of the male population (22.6%), while Non-Hispanic Whites represented 53.2% of newly diagnosed HIV MSM cases and 68.7% of the male population.

Figure 3.3: New HIV Diagnoses Among MSM by Race/Ethnicity (2012-2016) Compared to the Male Population (2016) – Colorado

MSM Newly Diagnosed HIV by Race/Ethnicity, 2012-2016

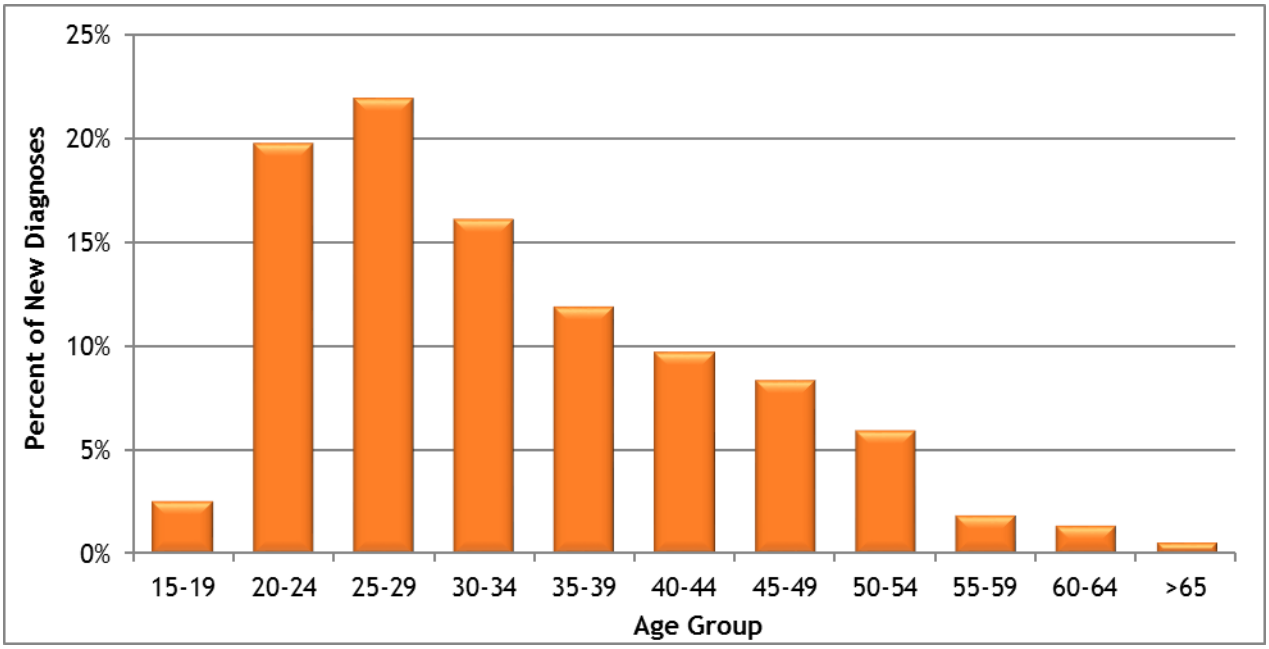
Colorado Male Population by Race/Ethnicity, 2016



New HIV Diagnoses Among MSM by Age

Figure 3.4 depicts the percentage of newly diagnosed HIV cases among MSM by age in 2012-2016. Over half (57.7%) of new HIV MSM diagnoses occurred among 20-34 year olds, which represented only 22.8% of the male population in 2016.

Figure 3.4: Percent of New MSM HIV Diagnoses by Age at Diagnosis - Colorado (2012-2016)



MSM Living with HIV

Table 3.2: Characteristics of MSM Living with HIV Through 12/31/16 - Colorado

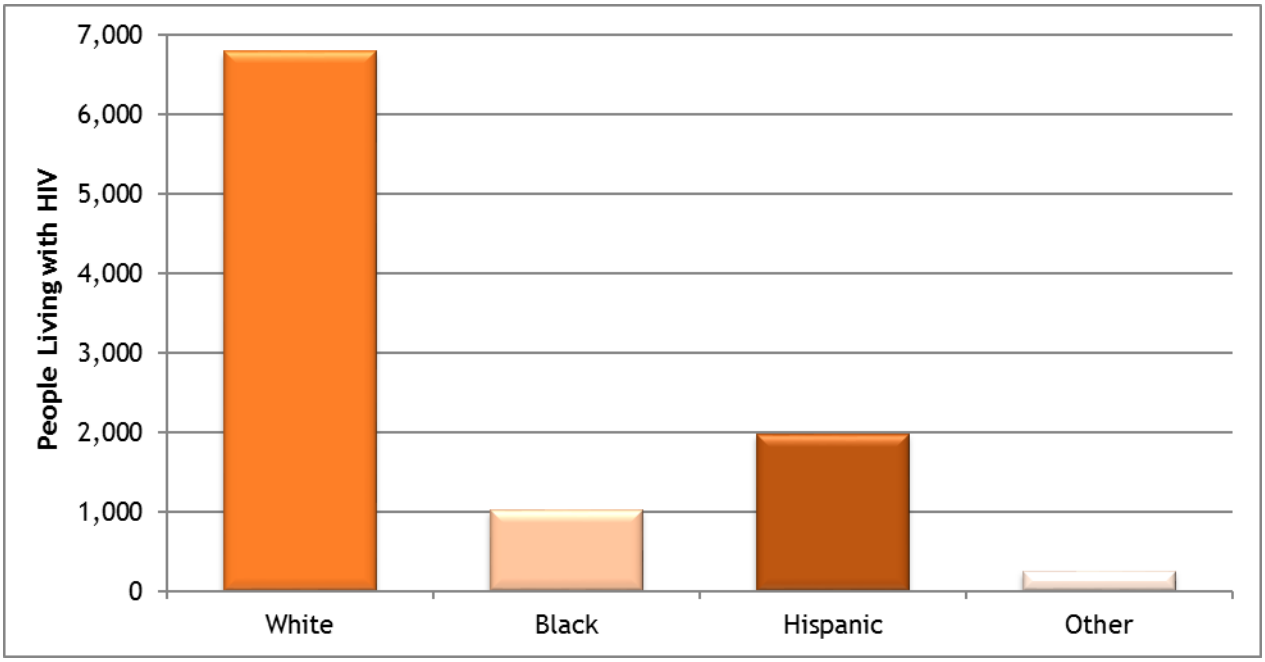
	TGA			Non TGA			State of Colorado	
	N	Row %	Column %	N	Row %	Column %	N	Column %
Total	7,817	77.8	100.0	2,226	22.2	100.0	10,046	100.0
Race/Ethnicity								
White, Non-Hispanic	5,233	77.0	66.9	1,557	22.9	69.9	6,793	67.6
Hispanic, all races	1,558	78.8	19.9	420	21.2	18.9	1,978	19.7
Black, Non-Hispanic	832	81.5	10.6	189	18.5	8.5	1,021	10.2
Asian/Pacific Islander, Non-Hispanic	68	76.4	0.9	21	23.6	0.9	89	0.9
Native American/Alaska Native, Non-Hispanic	34	66.7	0.4	17	33.3	0.8	51	0.5
Multiple Races, Non-Hispanic	76	78.4	1.0	21	21.6	0.9	97	1.0
Unknown	16	94.1	0.2	1	5.9	0.04	17	0.2
Transmission Category								
MSM	6,747	78.2	86.3	1,876	21.7	84.3	8,626	85.9
MSM/IDU	1,070	75.4	13.7	350	24.6	15.7	1,420	14.1

Region								
Urban	7,817	82.5	100.0	1,655	17.5	74.3	9,472	94.3
Rural	0	0.0	0.0	487	100.0	21.9	487	4.8
Frontier	0	0.0	0.0	84	100.0	3.8	84	0.8
Unknown	0	0.0	0.00	0	0.0	0.00	3	0.03
Current Age Group								
<20	9	81.8	0.1	2	18.2	0.1	11	0.1
20-24	139	76.0	1.8	44	24.0	2.0	183	1.8
25-29	444	73.9	5.7	157	26.1	7.1	601	6.0
30-34	569	77.4	7.3	166	22.6	7.5	735	7.3
35-39	677	79.1	8.7	179	20.9	8.0	856	8.5
40-44	660	76.5	8.4	203	23.5	9.1	863	8.6
45-49	1,053	75.6	13.5	339	24.4	15.2	1,392	13.9
50-54	1,437	77.5	18.4	414	22.3	18.6	1,853	18.4
55-59	1,214	79.6	15.5	310	20.3	13.9	1,525	15.2
60-64	840	77.6	10.7	243	22.4	10.9	1,083	10.8
≥65	775	82.1	9.9	169	17.9	7.6	944	9.4
Age Group at HIV Diagnosis								
<15	5	83.3	0.1	1	16.7	0.0	6	0.1
15-19	211	79.3	2.7	55	20.7	2.5	266	2.6
20-24	1,221	75.8	15.6	388	24.1	17.4	1,611	16.0
25-29	1,818	78.6	23.3	496	21.4	22.3	2,314	23.0
30-34	1,643	78.1	21.0	461	21.9	20.7	2,105	21.0
35-39	1,238	78.9	15.8	332	21.1	14.9	1,570	15.6
40-44	810	78.2	10.4	226	21.8	10.2	1,036	10.3
45-49	474	77.7	6.1	136	22.3	6.1	610	6.1
50-54	227	75.4	2.9	74	24.6	3.3	301	3.0
55-59	104	77.0	1.3	31	23.0	1.4	135	1.3
60-64	44	71.0	0.6	18	29.0	0.8	62	0.6
≥65	22	73.3	0.3	8	26.7	0.4	30	0.3

MSM Living with HIV by Race/Ethnicity

MSM living with HIV has a similar distribution of race/ethnicity as the overall PLHIV population as they represent 73.4%. The greatest majority of MSM living with HIV was Non-Hispanic White.

Figure 3.5: MSM Living with HIV as of December 31, 2016 by Race/Ethnicity - Colorado

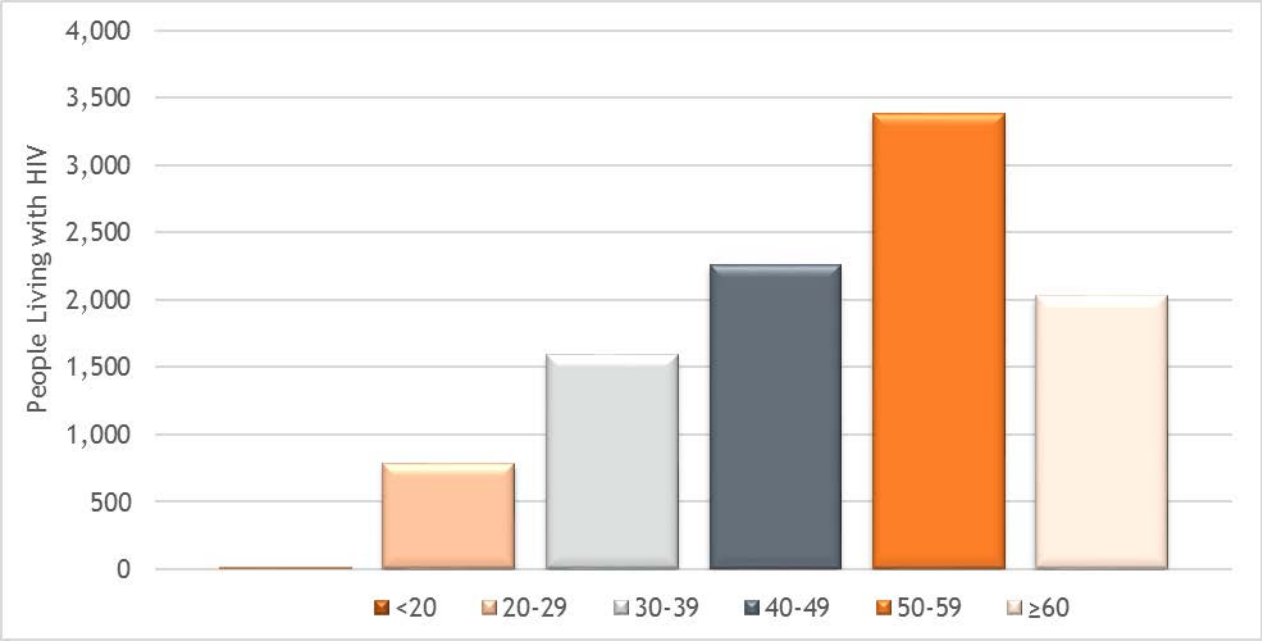


Other includes Non-Hispanic Asian, Non-Hispanic Native Hawaiian/Other Pacific Islander, Non-Hispanic Native American/Alaska Native, Non-Hispanic Multiple Races and Unknown.

MSM Living with HIV by Age

The age group with the largest proportion of MSM living with HIV as of December 31, 2016 was among 50-59 year olds. The next largest proportion was among 40-49 year olds.

Figure 3.6: MSM Living with HIV as of December 31, 2016 by Current Age - Colorado



Current Age calculated as of 12/31/16.

People Who Inject Drugs

Summary

- IDU and MSM/IDU HIV cases made up 16.9% of people living with HIV.
- Males accounted for 88.4% of PWID newly diagnosed HIV cases reported 2012-2016.
- Non-Hispanic Whites made up 65.2% of PWID newly diagnosed HIV cases 2012-2016, while Hispanics made up 22.0% of PWID cases, and Non-Hispanic Blacks comprise 8.0%.
- Newly diagnosed PWID HIV cases were most commonly diagnosed in the 20-34 age group from 2012-2016 (44.8%).

This section includes all those who were identified as PWID whether transmission was identified as IDU only or MSM/IDU unless otherwise specified.

New HIV Diagnoses Among PWID

Figure 3.7 demonstrates that PWID HIV cases diagnosed from 2012 through 2016 were largely concentrated in urban areas. This was consistent with other highly affected populations, affirming that the Colorado HIV epidemic was largely centered in urban areas. Urban areas reported 95.2% of cases, rural areas 4.8%, and frontier areas 0.0% of IDU cases. This pattern of HIV case distribution among urban, rural and frontier regions has remained stable since the beginning of the epidemic.

Figure 3.7: New PWID HIV Diagnoses by Region Reported at Diagnosis – Colorado (2012-2016)

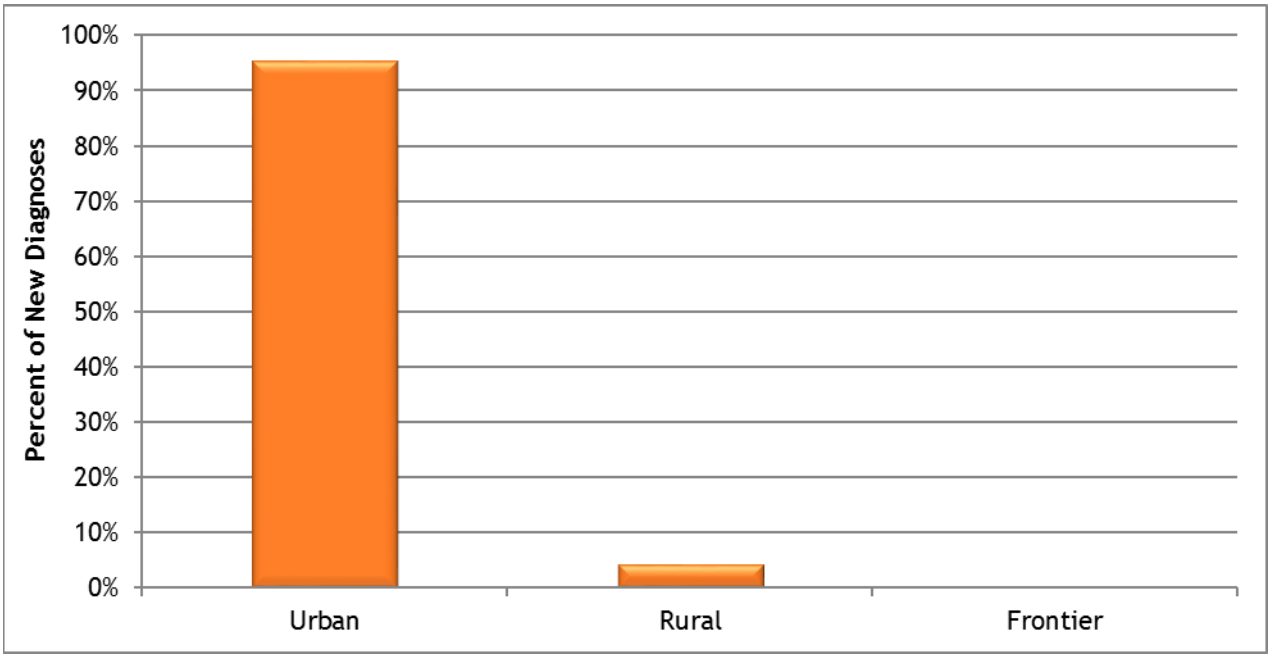
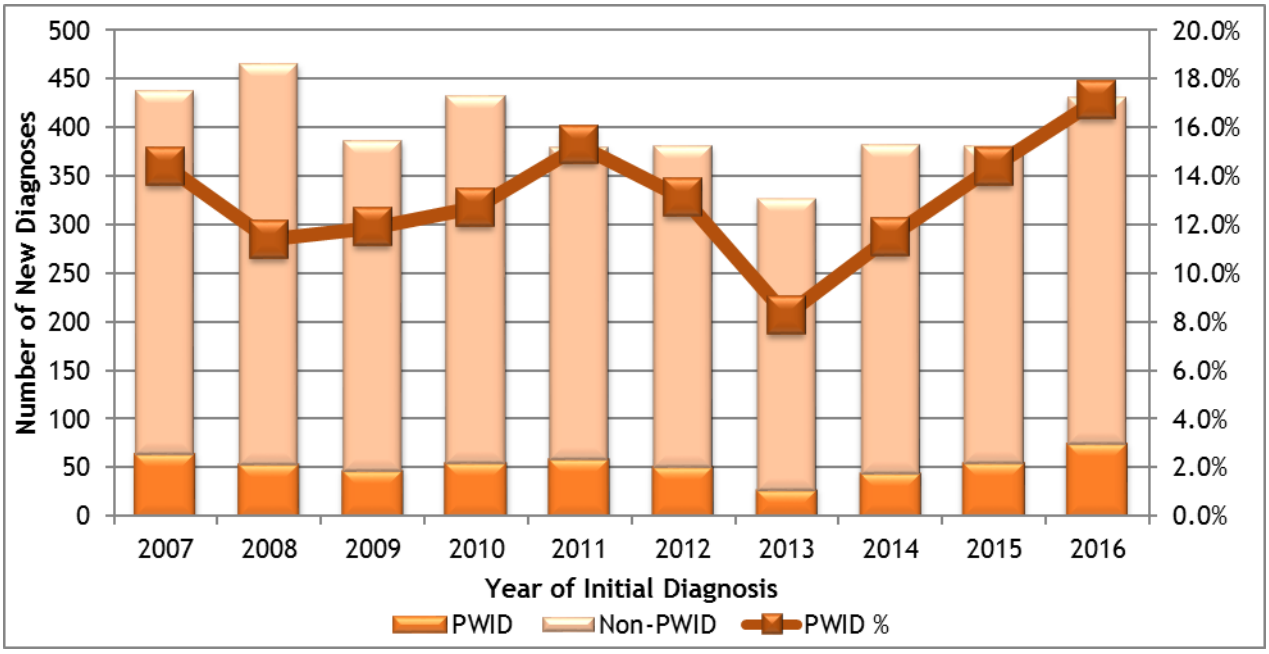


Table 3.3: Demographics of New HIV Diagnoses Among PWID - Colorado (2012-2016)

	Males			Females			Total	
	N	Row %	Column %	N	Row %	Column %	N	Column %
Total	221	88.4	100	29	11.6	100	250	100
Race/Ethnicity								
White, Non-Hispanic	146	89.6	66.1	17	10.4	58.6	163	65.2
Hispanic, all races	49	89.1	22.2	6	10.9	20.7	55	22.0
Black, Non-Hispanic	17	85.0	7.7	3	15.0	10.3	20	8.0
Asian/Pacific Islander, Non-Hispanic	4	100.0	1.8	0	0.0	0.0	4	1.6
Native American/Alaska Native, Non-Hispanic	3	60.0	1.4	2	40.0	6.9	5	2.0
Multiple Races, Non-Hispanic	2	66.7	0.9	1	33.3	3.4	3	1.2
Age Group at Diagnosis								
<20	5	83.3	2.3	1	16.7	3.4	6	3.4
20-24	34	87.2	15.4	5	12.8	17.2	39	17.2
25-29	39	95.1	17.6	2	4.9	6.9	41	6.9
30-34	48	88.9	21.7	6	11.1	20.7	54	20.7

35-39	33	97.1	14.9	1	2.9	3.4	34	3.4
40-44	21	80.8	9.5	5	19.2	17.2	26	17.2
45-49	15	83.3	6.8	3	16.7	10.3	18	10.3
50-54	15	83.3	6.8	3	16.7	10.3	18	10.3
55-59	6	85.7	2.7	1	14.3	3.4	7	3.4
60-64	5	71.4	2.3	2	28.6	6.9	7	6.9
≥65	0	0.0	0.0	0	0.0	0.0	0	0.0
Transmission Category								
IDU	47	61.8	21.3	29	38.2	100.0	76	30.4
MSM/IDU	174	100.0	78.7	0	0.0	0.0	174	69.6
Region								
Urban	212	89.1	95.9	26	10.9	89.7	238	95.2
Rural	9	75.0	4.1	3	25.0	10.3	12	4.8
Frontier	0	0.0	0.0	0	0.0	0.0	0	0.0
Birth Country								
United States (50 states)	194	87.8	87.8	27	12.2	93.1	221	88.4
Unknown	20	90.9	9.0	2	9.1	6.9	22	8.8
Foreign-born	7	100.0	3.2	0	0.0	0.0	7	2.8
Asia	1	100.0	14.3	0	0.0	0.0	1	14.3
Caribbean	1	100.0	14.3	0	0.0	0.0	1	14.3
Europe	1	100.0	14.3	0	0.0	0.0	1	14.3
Mexico	4	100.0	57.1	0	0.0	0.0	4	57.1
Other	0	0.0	0.0	0	0.0	0.0	0	0.0

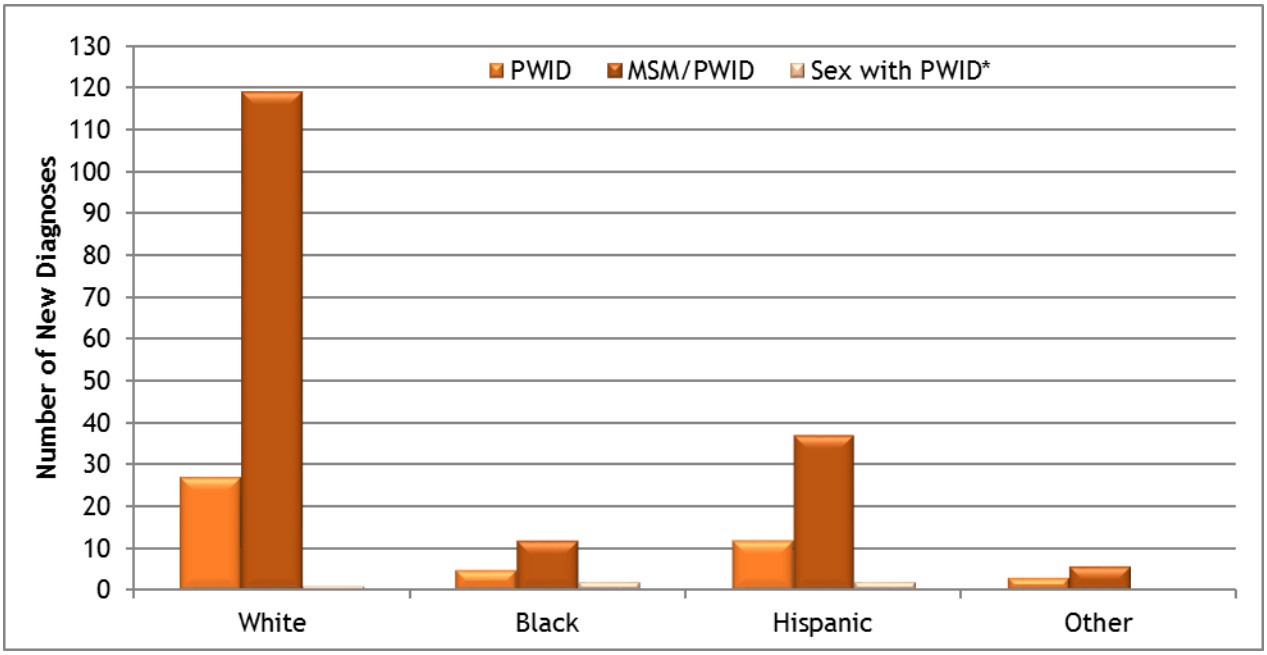
Figure 3.8: Newly Diagnosed Cases of HIV and Percentage of PWID - Colorado (2007-2016)



New HIV Diagnoses Among PWID by Race/Ethnicity

The following two graphs illustrate the impact of IDU risk behaviors in both males and females. **Figure 3.9** shows that among the 226 males diagnosed with HIV in 2012-2016 with an IDU-associated risk, Non-Hispanic Whites account for 147 (65.0%) cases, Hispanics for 51 (22.6%) cases, Non-Hispanic Blacks for 19 (8.4%) cases and all remaining races accounted for 9 (4%) combined. Among the 174 males who were MSM/PWID, Non-Hispanic Whites accounted for the overwhelming majority of these cases (119 or 68.4%), Hispanics for 37 (21.3%) cases, and Non-Hispanic Blacks for 12 cases (6.9%).

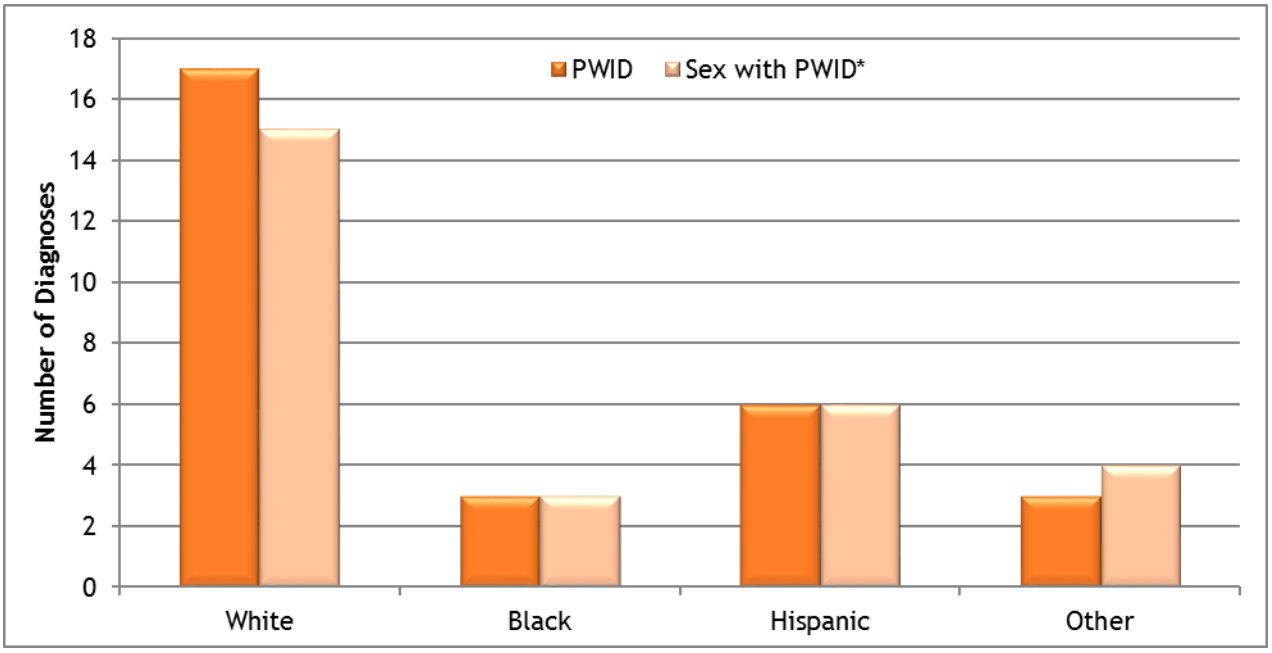
Figure 3.9: IDU-Associated New HIV Diagnoses by Race/Ethnicity Among Males – Colorado (2012-2016)



*Includes heterosexual contact transmission if sex was with a known PWID.
Other may include Non-Hispanic Asian, Non-Hispanic Native Hawaiian/Other Pacific Islander, Non-Hispanic Native American/Alaska Native, Non-Hispanic Multiple Races and Unknown.

From 2012 to 2016, 57 cases of HIV in females were associated with IDU. As shown in **Figure 3.10**, Non-Hispanic Whites accounted for 32 (56.1%), Non-Hispanic Blacks accounted for 6 (10.5%) and Hispanics constituted 12 (21.5%) of cases. The number of cases of females who acquired HIV via heterosexual contact with a PWID (N=28) was higher than for males (N=5) in 2012-2016. Non-Hispanic White females comprised 53.6% (N=15), Hispanic females comprised 21.1% (N=6), and Non-Hispanic Black females represented 10.7% (N=3) of this group.

Figure 3.10: IDU-Associated New HIV Diagnoses by Race/Ethnicity Among Females – Colorado (2012-2016)

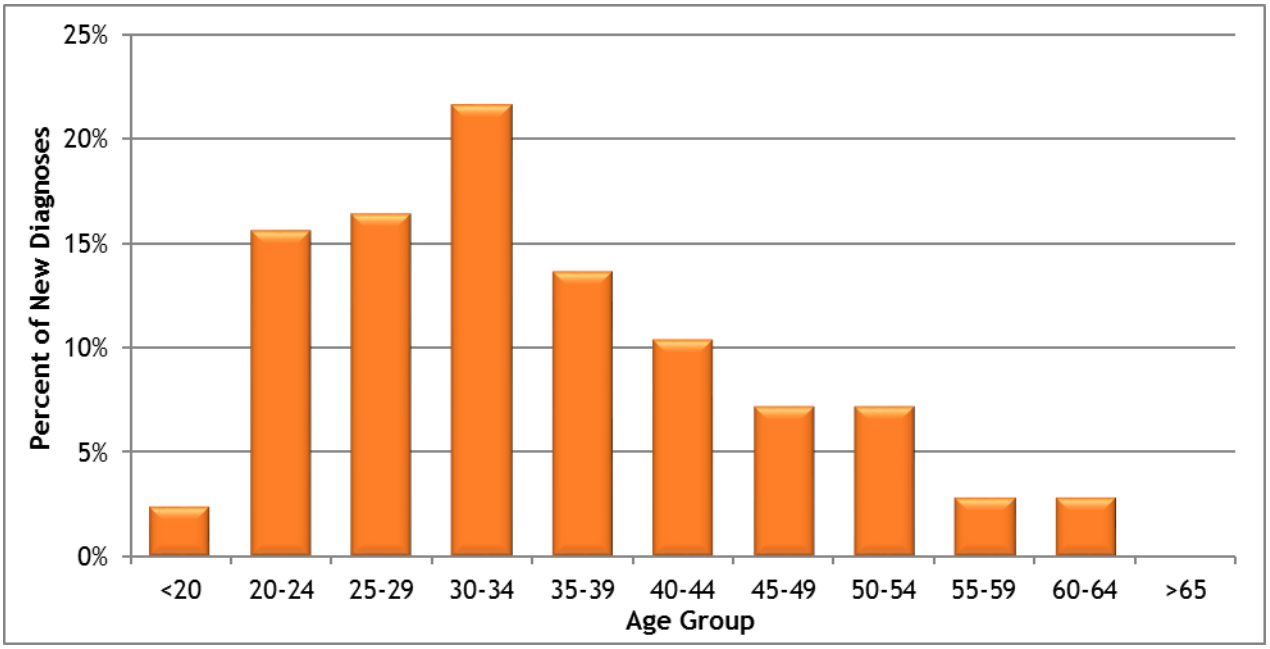


*Includes heterosexual contact transmission if sex was with a known PWID.
Other may include Non-Hispanic Asian, Non-Hispanic Native Hawaiian/Other Pacific Islander, Non-Hispanic Native American/Alaska Native, Non-Hispanic Multiple Races and Unknown.

New HIV Diagnoses Among PWID by Age

Figure 3.11 illustrates newly diagnosed cases of HIV from 2012 through 2016 among PWID. When reviewing cases of HIV, all age groups showed a similar proportion of cases reported from 2012 to 2016 with 30-34 year olds having a proportion slightly higher than the other age groups. However, it should be noted that the number of IDU transmitted HIV cases remained small and caution should be exercised when interpreting these numbers.

Figure 3.11: Number of New PWID HIV Diagnoses by Age at Diagnosis – Colorado (2012-2016)



PWID Living with HIV

Table 3.4: Characteristics of PWID Living with HIV Through 12/31/16 - Colorado

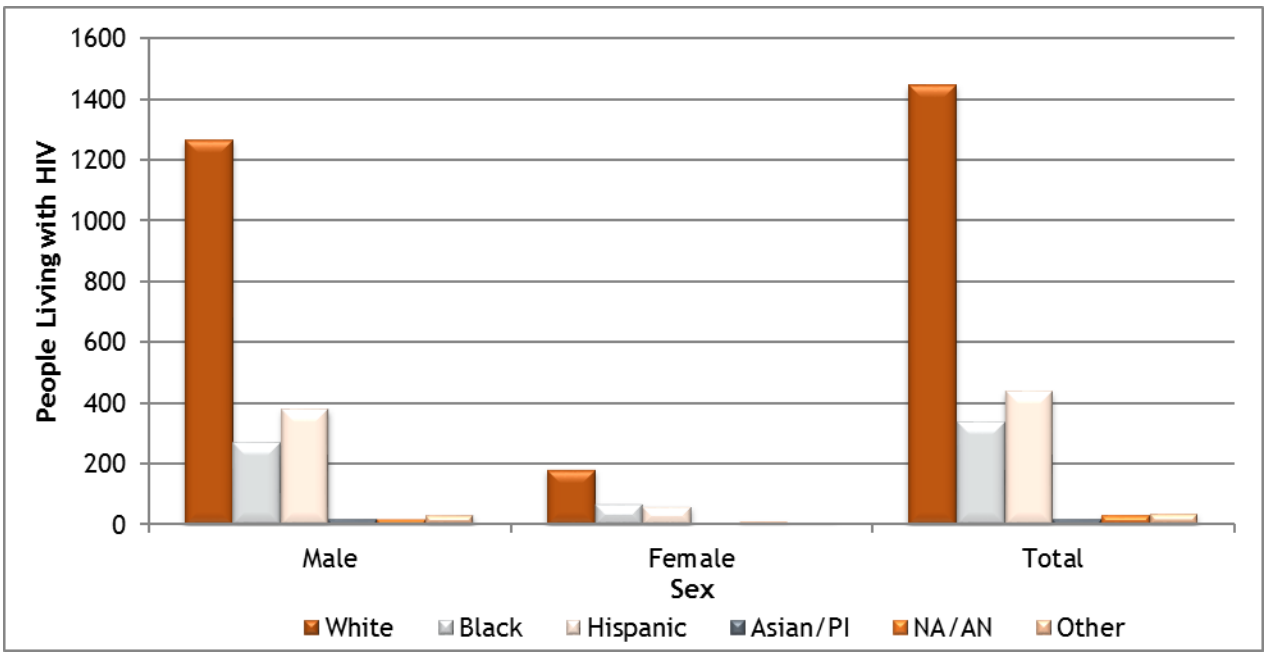
	Male			Female			Total	
	N	Row %	Column %	N	Row %	Column %	N	Column %
Total	1,986	85.7	100.0	332	14.3	100.0	2,318	100.0
Race/Ethnicity								
White, Non-Hispanic	1,266	87.3	63.7	185	12.7	55.7	1,451	62.6
Hispanic, all races	380	86.4	19.1	60	13.6	18.1	440	19.0
Black, Non-Hispanic	270	79.2	13.6	71	20.8	21.4	341	14.7
Asian/Pacific Islander, Non-Hispanic	20	100.0	1.0	0	0.0	0.0	20	0.9
Native American/Alaskan Native, Non-Hispanic	20	66.7	1.0	10	33.3	3.0	30	1.3
Multiple Races, Non-Hispanic	28	82.4	1.4	6	17.6	1.8	34	1.5
Unknown	2	100.0	0.1	0	0.0	0.0	2	0.1
Transmission Category								
IDU	566	63.0	28.5	332	37.0	100.0	898	38.7
MSM/IDU	1,420	100.0	71.5	0	0.0	0.0	1,420	61.3

Region								
Urban	1,807	85.5	91.0	306	14.5	92.2	2,113	91.2
Rural	148	87.6	7.5	21	12.4	6.3	169	7.3
Frontier	31	88.6	1.6	4	11.4	1.2	35	1.5
Unknown	0	0.0	0.0	1	100.0	0.3	1	0.0
Current Age Group								
<20	4	100.0	0.2	0	0.0	0.0	4	0.2
20-24	23	79.3	1.2	6	20.7	1.8	29	1.3
25-29	84	92.3	4.2	7	7.7	2.1	91	3.9
30-34	136	89.5	6.8	16	10.5	4.8	152	6.6
35-39	172	87.3	8.7	25	12.7	7.5	197	8.5
40-44	186	84.5	9.4	34	15.5	10.2	220	9.5
45-49	277	82.7	13.9	58	17.3	17.5	335	14.5
50-54	408	87.0	20.5	61	13.0	18.4	469	20.2
55-59	343	85.1	17.3	60	14.9	18.1	403	17.4
60-64	216	82.8	10.9	45	17.2	13.6	261	11.3
≥65	137	87.3	6.9	20	12.7	6.0	157	6.8
Age Group at HIV Diagnosis								
<15	1	50.0	0.1	1	50.0	0.3	2	0.1
15-19	51	65.4	2.6	27	34.6	8.1	78	3.4
20-24	317	88.5	16.0	41	11.5	12.3	358	15.4
25-29	480	88.6	24.2	62	11.4	18.7	542	23.4
30-34	475	86.4	23.9	75	13.6	22.6	550	23.7
35-39	315	87.0	15.9	47	13.0	14.2	362	15.6
40-44	185	81.5	9.3	42	18.5	12.7	227	9.8
45-54	133	82.6	6.7	28	17.4	8.4	161	6.9
55-64	29	76.3	1.5	9	23.7	2.7	38	1.6
≥65	0	0.0	0.0	0	0.0	0.0	0	0.0

PWID Living with HIV by Race/Ethnicity

A greater percentage of female PWID living with HIV were Non-Hispanic Black compared to male PWID living with HIV, 21.4% and 13.6%, respectively. Conversely, a greater percentage of male PWID living with HIV were Non-Hispanic White compared to female PWID living with HIV, 63.7% and 55.7%, respectively.

Figure 3.12: PWID Living with HIV Through 12/31/16 by Sex and Race/Ethnicity - Colorado

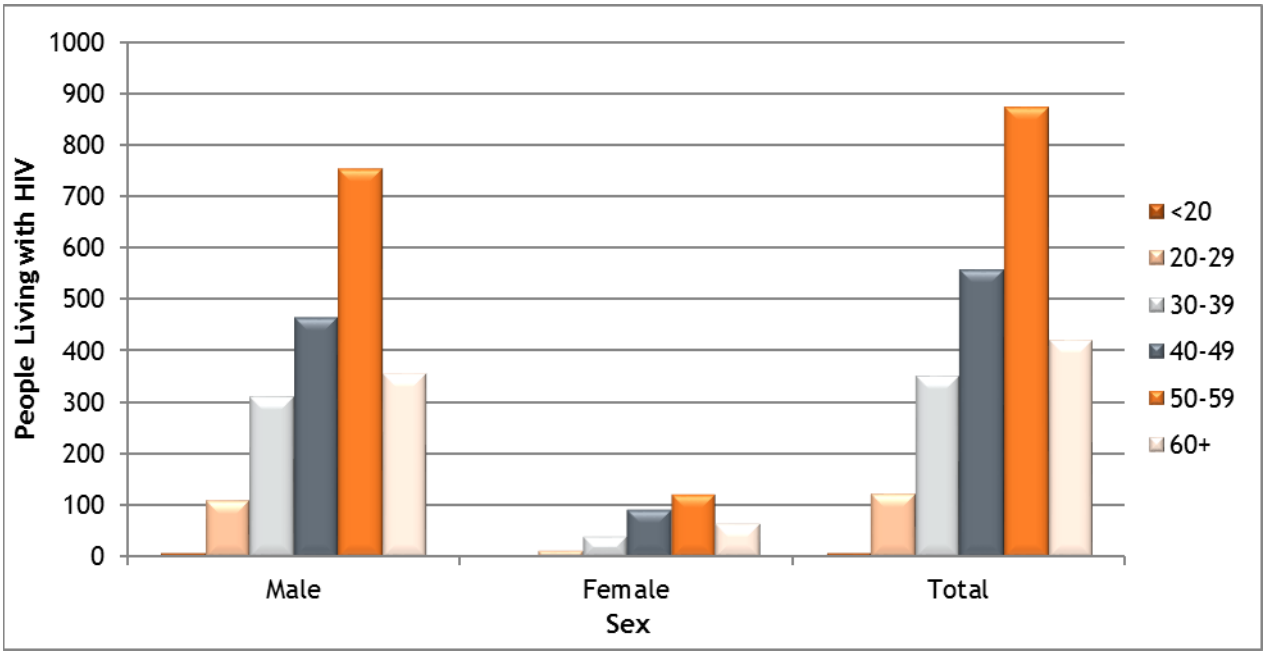


Other includes Non-Hispanic Multiple Races and Unknown.

PWID Living with HIV by Age

Unlike race/ethnicity, the distribution by current age is very similar between male and female PWID living with HIV as shown below in **Figure 3.13**.

Figure 3.13: PWID Living with HIV Through 12/31/16 by Sex and Current Age - Colorado



Current Age calculated as of 12/31/16.

Heterosexual Transmission

Summary

- Heterosexual HIV transmission has decreased from 11.3% in 2012 to 5.6% in 2016.
- Females represented 58.3% of heterosexually transmitted HIV cases in 2016.
- Of new HIV cases transmitted by heterosexual contact in 2012-2016, Non-Hispanic Whites made up 35.9%, while Non-Hispanic Blacks comprised 34.4%, and Hispanics made up 25.0%.
- The majority of heterosexual transmission of new HIV diagnoses were among people aged 25-39 years, representing 49.5% of cases.

It is difficult to assess the number of people in Colorado who engage in heterosexual contact that puts them at high risk for contracting HIV. A diagnosis of a sexually transmitted infection (STI) would suggest that the person had engaged in higher risk sexual practices. Specific HIV prevention strategies should be directed toward these individuals. In 2016, 25,569 cases of chlamydia, 5,975 cases of gonorrhea and 740 cases of syphilis were reported to CDPHE.

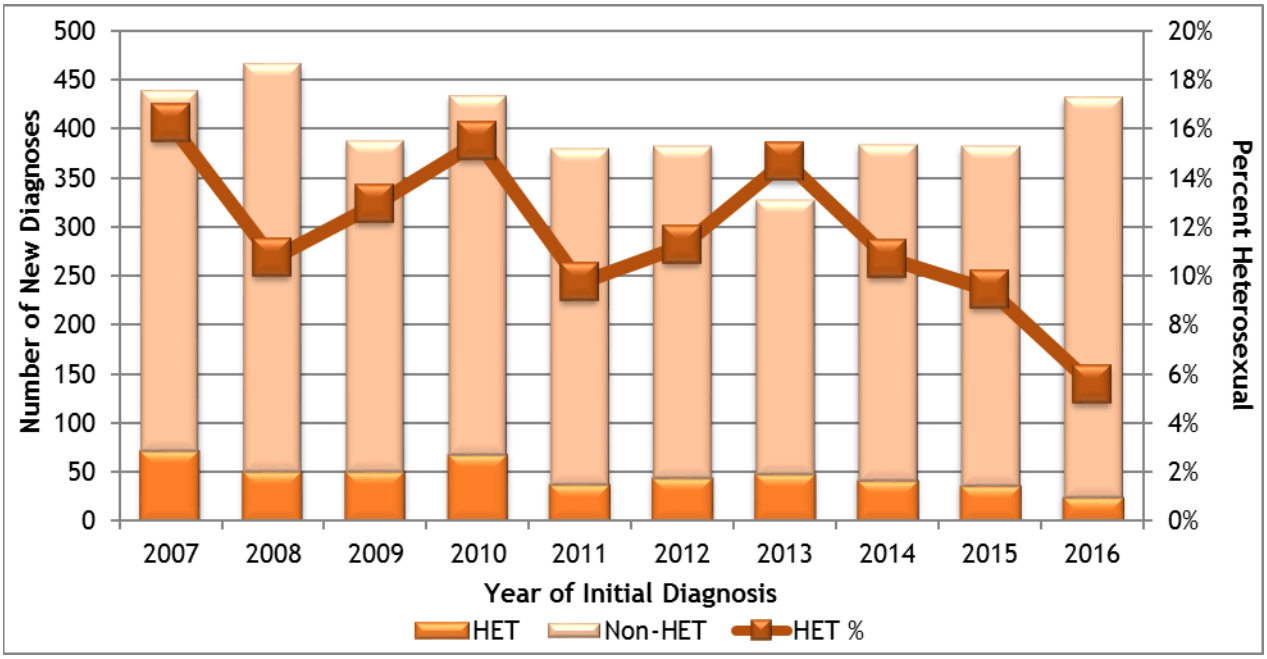
New HIV Diagnoses Among Heterosexuals

Table 3.5: Demographics of New HIV Diagnoses Among Heterosexuals - Colorado (2012-2016)

	Males			Females			Total	
	N	Row %	Column %	N	Row %	Column %	N	Column %
Total	59	30.7	100	133	69.3	100	192	100
Race/Ethnicity								
White, Non-Hispanic	24	34.8	40.7	45	65.2	33.8	69	35.9
Hispanic, all races	16	33.3	27.1	32	66.7	24.1	48	25.0
Black, Non-Hispanic	18	27.3	30.5	48	72.7	36.1	66	34.4
Asian/Pacific Islander, Non-Hispanic	0	0.0	0.0	6	100.0	4.5	6	3.1
Native American/Alaska Native, Non-Hispanic	0	0.0	0.0	1	100.0	0.8	1	0.5
Multiple Races, Non-Hispanic	1	50.0	1.7	1	50.0	0.8	2	1.0
Transmission Category								
Heterosexual Contact with HIV+	54	36.0	91.5	96	64.0	72.2	150	78.1
Heterosexual Contact with PWID	5	15.2	8.5	28	84.8	21.1	33	17.2
Heterosexual Contact with MSM	0	0.0	0.0	9	100.0	6.8	9	4.7
Age Group at Diagnosis								
<15	0	0.0	0.0	0	0.0	0.0	0	0.0
15-19	0	0.0	0.0	5	100.0	3.8	5	3.8
20-24	3	12.5	5.1	21	87.5	15.8	24	15.8
25-29	10	30.3	16.9	23	69.7	17.3	33	17.3
30-34	10	30.3	16.9	23	69.7	17.3	33	17.3
35-39	7	24.1	11.9	22	75.9	16.5	29	16.5
40-44	6	40.0	10.2	9	60.0	6.8	15	6.8
45-49	11	47.8	18.6	12	52.2	9.0	23	9.0
50-54	6	46.2	10.2	7	53.8	5.3	13	5.3
55-59	2	18.2	3.4	9	81.8	6.8	11	6.8
60-64	2	66.7	3.4	1	33.3	0.8	3	0.8
≥65	2	66.7	3.4	1	33.3	0.8	3	0.8
Region								
Urban	57	31.8	96.6	122	68.2	91.7	179	93.2
Rural	2	18.2	3.4	9	81.8	6.8	11	5.7

Frontier	0	0.0	0.0	2	100.0	1.5	2	1.0
Birth Country								
United States (50 states)	48	33.8	81.4	94	66.2	70.7	142	74.0
Unknown	1	11.1	1.7	8	88.9	6.0	9	4.7
Foreign-born	10	24.4	16.9	31	75.6	23.3	41	21.4
African	4	17.4	40.0	19	82.6	61.3	23	56.1
Asian	0	0.0	0.0	3	100.0	9.7	3	7.3
Caribbean	2	100.0	20.0	0	0.0	0.0	2	4.9
Mexico	4	33.3	40.0	8	66.7	25.8	12	29.3
S. American	0	0.0	0.0	1	100.0	3.2	1	2.4
Other	0	0.0	0.0	0	0.0	0.0	0	0.0

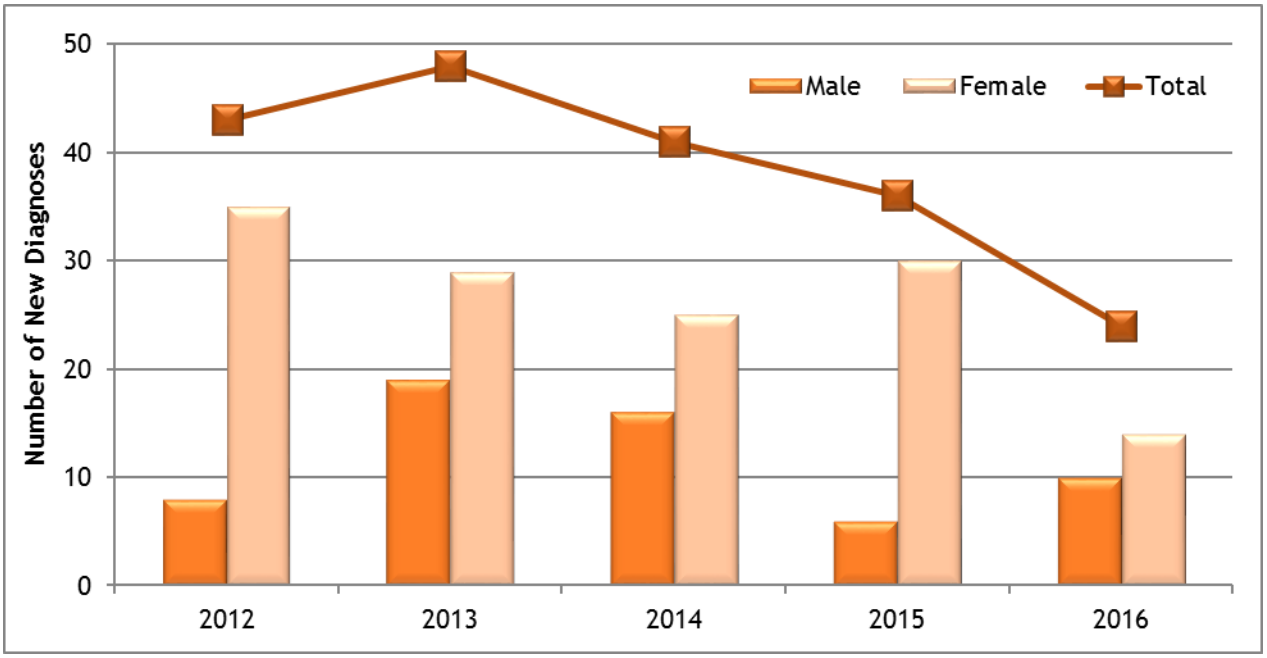
Figure 3.14: Newly Diagnosed Cases of HIV and Percentage of Heterosexuals - Colorado (2007-2016)



New HIV Diagnoses Among Heterosexuals by Sex

Figure 3.15 illustrates the number of heterosexually transmitted HIV cases by year of first positive test and sex between 2012 and 2016. The overall number of heterosexually transmitted HIV cases has been trending down during the five-year time period. Care should be taken in identifying trends in this group due to the small number of cases.

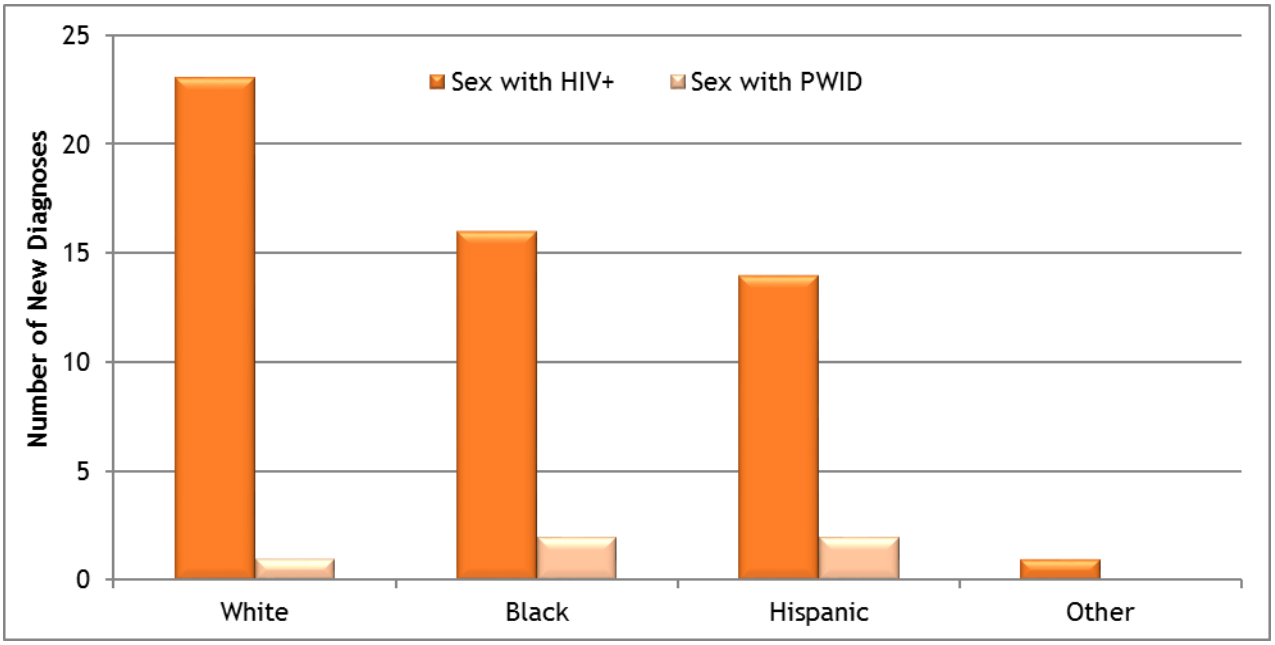
Figure 3.15: Number of New Heterosexually Transmitted HIV Diagnoses by Sex and Year of Diagnosis – Colorado (2012-2016)



New HIV Diagnoses Among Heterosexuals by Race/Ethnicity

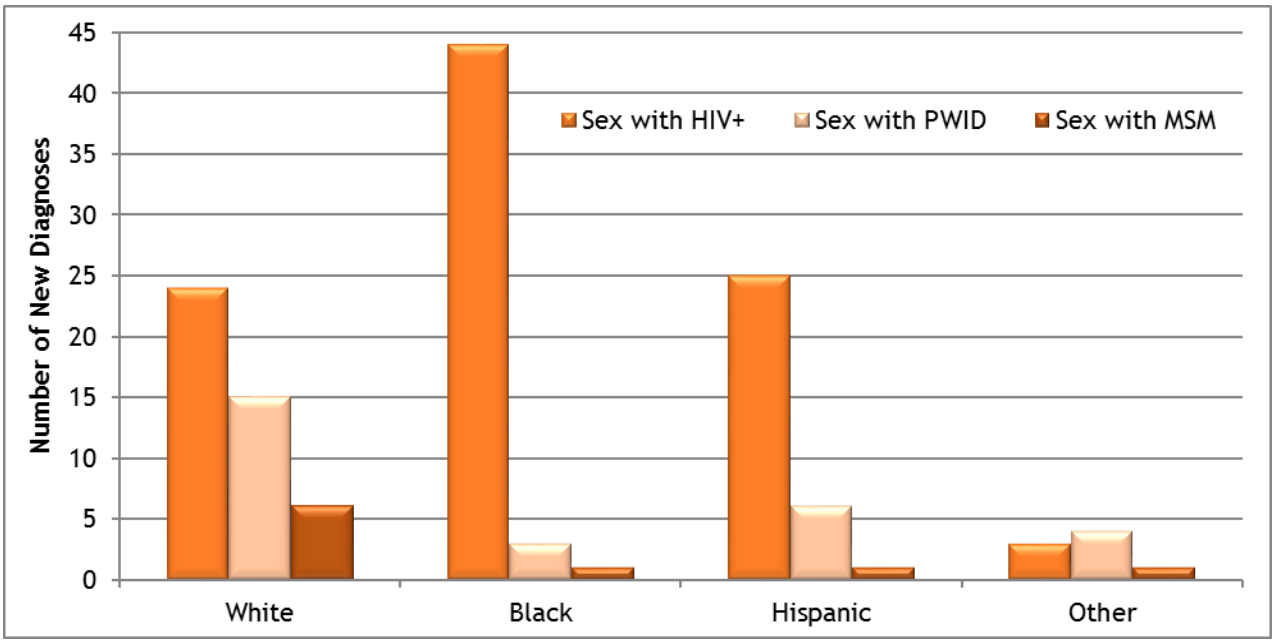
Recently diagnosed cases of HIV attributed to heterosexual transmission are illustrated in **Figure 3.16** and **Figure 13.17**. Non-Hispanic Whites accounted for the largest group with 69 (35.9%) cases, Non-Hispanic Blacks accounted for 34.4% (N=66) of cases and Hispanics accounted for 25% (N=48) of cases. In comparison to their percentage of the total population, racial/ethnic population, Non-Hispanic Blacks were overrepresented among heterosexually transmitted HIV cases.

Figure 3.16: New Heterosexual Contact Associated HIV Diagnoses by Race/Ethnicity Among Males – Colorado (2012-2016)



Other may include Non-Hispanic Asian, Non-Hispanic Native Hawaiian/Other Pacific Islander, Non-Hispanic Native American/Alaska Native, Non-Hispanic Multiple Races and Unknown.

Figure 3.17: New Heterosexual Contact Associated HIV Diagnoses by Race/Ethnicity Among Females – Colorado (2012-2016)

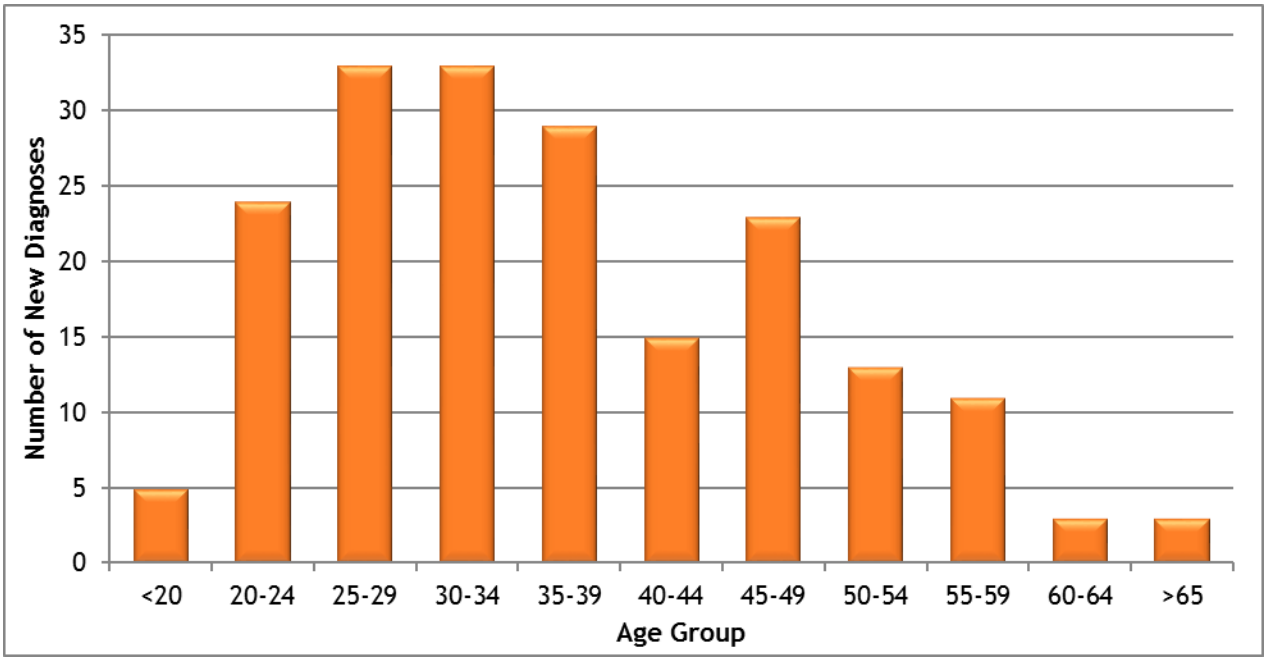


Other may include Non-Hispanic Asian, Non-Hispanic Native Hawaiian/Other Pacific Islander, Non-Hispanic Native American/Alaska Native, Non-Hispanic Multiple Races and Unknown.

New HIV Diagnoses Among Heterosexuals by Age

Figure 3.18 illustrates recently diagnosed cases of HIV attributed to heterosexual contact by age in 2012-2016. This graph indicates that the largest proportion (17.2%) of newly diagnosed cases occurred in both the 25-29 and 30-34 year old age groups. The 35-39 year old age group followed, representing 15.1% of the cases. The next highest contributing age group was 20-24 representing 12.5% of heterosexually transmitted HIV cases in Colorado in 2012-2016.

Figure 3.18: New Heterosexually Transmitted HIV Diagnoses by Age at Diagnosis – Colorado (2012-2016)



Heterosexuals Living with HIV

Table 3.6: Characteristics of Heterosexuals Living with HIV Through 12/31/16 - Colorado

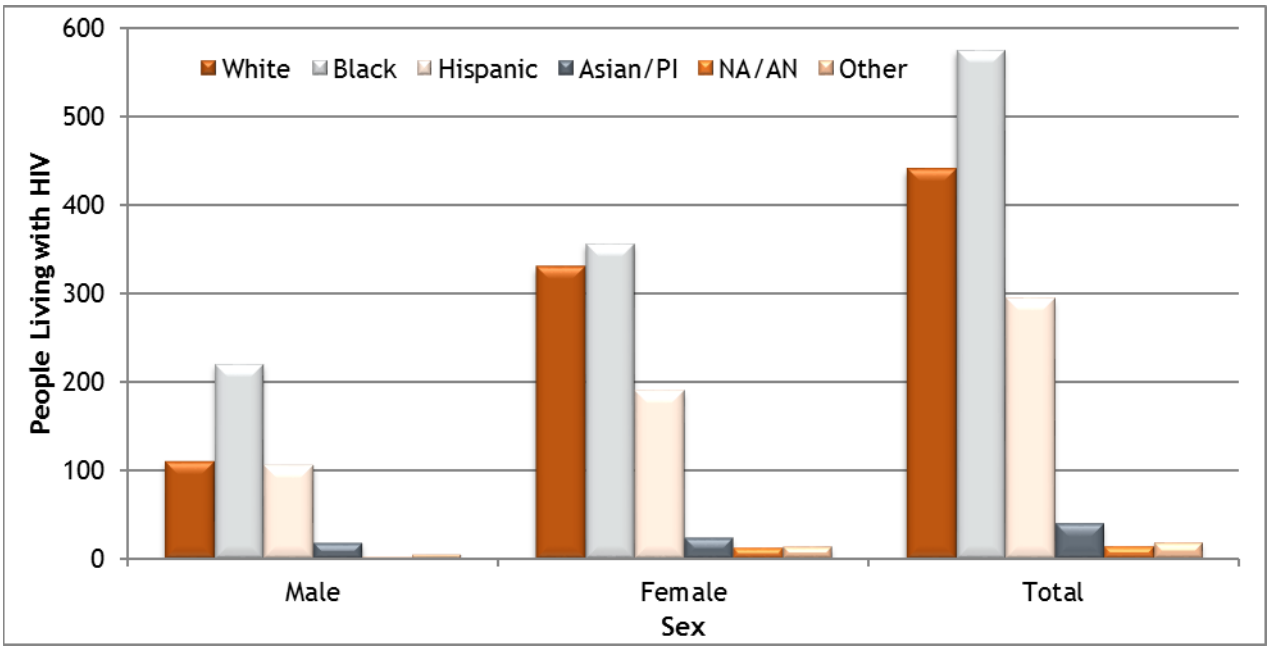
	Male			Female			Total	
	N	Row %	Column %	N	Row %	Column %	N	Column %
Total	456	33.1	100.0	922	66.9	100.0	1,378	100.0
Race/Ethnicity								
White, Non-Hispanic	110	25.0	24.1	330	75.0	35.8	440	31.9
Hispanic, all races	105	35.7	23.0	189	64.3	20.5	294	21.3
Black, Non-Hispanic	220	38.2	48.2	356	61.8	38.6	576	41.8
Asian/Pacific Islander, Non-Hispanic	16	41.0	3.5	23	59.0	2.5	39	2.8

Native American/Alaskan Native, Non-Hispanic	1	8.3	0.2	11	91.7	1.2	12	0.9
Multiple Races, Non-Hispanic	4	25.0	0.9	12	75.0	1.3	16	1.2
Unknown	0	0.0	0.0	1	100.0	0.1	1	0.1
Transmission Category								
Heterosexual Contact with HIV+	374	36.4	82.0	653	63.6	70.8	1,027	74.5
Heterosexual Contact with PWID	82	29.9	18.0	192	70.1	20.8	274	19.9
Heterosexual Contact with MSM	0	0.0	0.0	77	100.0	8.4	77	5.6
Region								
Urban	416	32.9	91.2	849	67.1	92.1	1,265	91.8
Rural	37	37.8	8.1	61	62.2	6.6	98	7.1
Frontier	3	20.0	0.7	12	80.0	1.3	15	1.1
Current Age Group								
<20	0	0.0	0.0	3	100.0	0.3	3	0.2
20-24	2	15.4	0.4	11	84.6	1.2	13	0.9
25-29	12	19.7	2.6	49	80.3	5.3	61	4.4
30-34	22	22.7	4.8	75	77.3	8.1	97	7.0
35-39	49	29.7	10.7	116	70.3	12.6	165	12.0
40-44	56	28.1	12.3	143	71.9	15.5	199	14.4
45-49	79	33.6	17.3	156	66.4	16.9	235	17.1
50-54	91	37.4	20.0	152	62.6	16.5	243	17.6
55-59	74	44.3	16.2	93	55.7	10.1	167	12.1
60-64	32	33.7	7.0	63	66.3	6.8	95	6.9
≥65	39	39.0	8.6	61	61.0	6.6	100	7.3
Age Group at HIV Diagnosis								
<15	0	0.0	0.0	3	100.0	0.3	3	0.2
15-19	7	14.3	1.5	42	85.7	4.6	49	3.6
20-24	45	23.1	9.9	150	76.9	16.3	195	14.2
25-29	71	25.5	15.6	207	74.5	22.5	278	20.2
30-34	82	32.9	18.0	167	67.1	18.1	249	18.1
35-39	83	36.1	18.2	147	63.9	15.9	230	16.7
40-44	82	55.4	18.0	66	44.6	7.2	148	10.7
45-54	66	41.8	14.5	92	58.2	10.0	158	11.5
55-64	17	29.3	3.7	41	70.7	4.4	58	4.2
≥65	3	30.0	0.7	7	70.0	0.8	10	0.7

Heterosexuals Living with HIV by Race/Ethnicity

A greater percentage of female heterosexuals living with HIV are Non-Hispanic White compared to male heterosexuals living with HIV, 35.8% and 24.1%, respectively. In contrast, a greater percentage of male heterosexuals living with HIV are Non-Hispanic Black compared to female heterosexuals living with HIV, 48.3% and 38.6%, respectively.

Figure 3.19: Heterosexuals Living with HIV Through 12/31/16 by Sex and Race/Ethnicity - Colorado

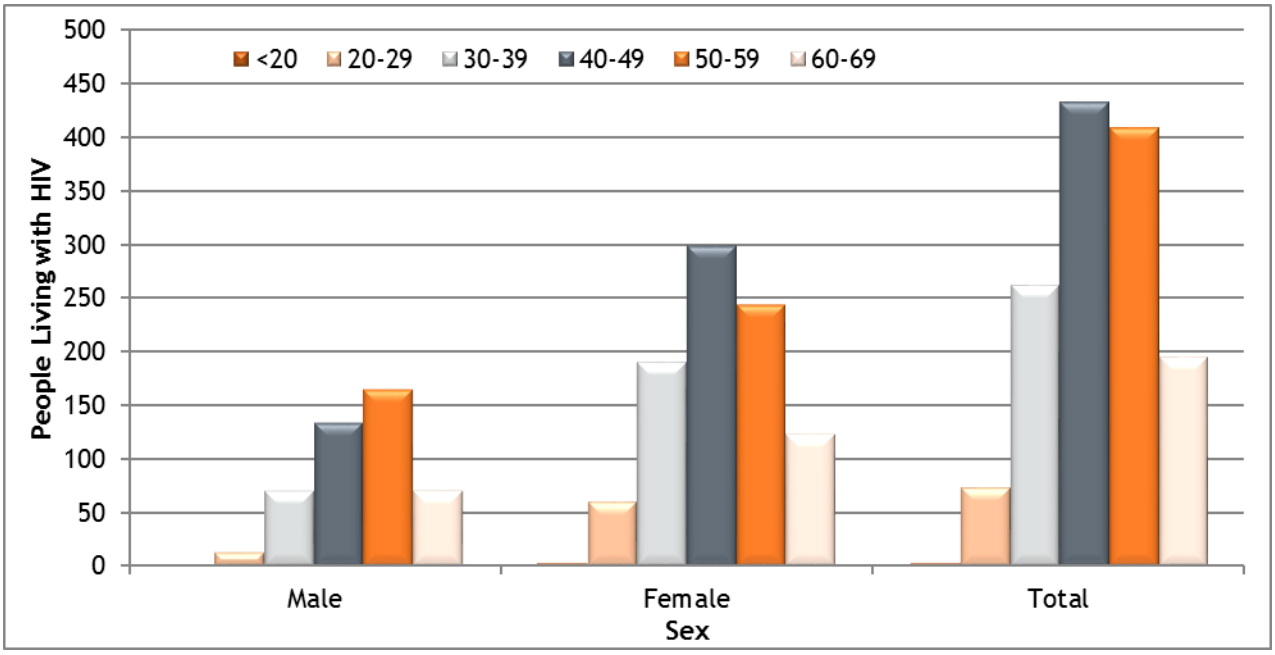


Other includes Non-Hispanic Multiple Races and Unknown.

Heterosexuals Living with HIV by Age

The age distribution by sex is displayed below in **Figure 3.20**. It shows that men who disclosed only having a transmission risk of heterosexual contact skewed older than the women did. A greater percentage of female heterosexuals living with HIV were 30-39 years old compared to male heterosexuals living with HIV, 20.7% and 15.6%, respectively. In contrast, a greater percentage of male heterosexuals living with HIV were 50-59 years old compared to female heterosexuals living with HIV, 36.2% and 26.6%, respectively.

Figure 3.20: Heterosexuals Living with HIV Through 12/31/16 by Sex and Current Age - Colorado



Current Age calculated as of 12/31/16.

Infants Born to HIV Positive Women

As shown in **Table 3.7**, the number of infants known to be born to HIV-positive mothers ranged between 23 and 33 from 2012-2016. During that period, there were no confirmed cases of infants reported who acquired HIV perinatally. According to CDPHE vital statistics data obtained from 2016 birth certificates, 94.7% of live births received prenatal care, and 96.0% of those with known prenatal care had reported an HIV test during pregnancy.[13]

Table 3.7: Number of Infants Born to HIV Positive Women by Year of Birth – Colorado (2012-2016)

Year of Birth	Number of Infants born to HIV Positive Women	Number of Infants who acquired HIV perinatally
2012	30	0
2013	23	0
2014	27	0
2015	33	0
2016	31	0
Total	144	0

[13] Colorado Department of Public Health and Environment, Vital Statistics 2016 Birth Certificate Data.

Foreign-Born

Summary

- An estimated 9.8% of Colorado's population were born outside of the U.S.[14] Foreign-Borns account for 11.6% of new 2016 HIV cases and 11.2% of PLHIV.
- The majority of foreign-borns diagnosed with HIV 2012-2016 occurred in those people aged 30-49 years representing 57.1% of cases.
- Over two-thirds (69.4%) of PLHIV foreign-borns' transmission category was MSM only (38.0%) or heterosexual contact (31.4%), whereas MSM- only transmission accounts for a majority (60.6%) of 2016 new diagnoses.
- Three-quarters (75.5%) of foreign-born Hispanics diagnosed 2012-2016 were born in Mexico and 56.0% of Non-Hispanic Blacks were born in the Horn of Africa or western Africa.

Foreign-born in this section does not include those with an unknown country of birth. Country of birth defaults to "Unknown" if not noted during regular surveillance activities. Therefore, it cannot be certain that those with an unknown country of birth are actually foreign-born.

New HIV Diagnoses Among Foreign-born

Table 3.8: Demographics of New HIV Diagnoses Among Foreign-born - Colorado (2012-2016)

	Males			Females			Total	
	N	Row %	Column %	N	Row %	Column %	N	Column %
Total	183	70.4	100	77	29.6	100	260	100
Race/Ethnicity								
White, Non-Hispanic	13	86.7	7.1	2	13.3	2.6	15	5.8
Hispanic, all races	126	90.6	68.9	13	9.4	16.9	139	53.5
Black, Non-Hispanic	32	36.8	17.5	55	63.2	71.4	87	33.5
Asian/Pacific Islander, Non-Hispanic	8	53.3	4.4	7	46.7	9.1	15	5.8
Native American/Alaska Native, Non-Hispanic	0	0.0	0.0	0	0.0	0.0	0	0.0
Multiple Races, Non-Hispanic	4	100.0	2.2	0	0.0	0.0	4	1.5
Age Group at Diagnosis								
<10	4	50.0	2.2	4	50.0	5.2	8	5.2
10-14	1	25.0	0.5	3	75.0	3.9	4	3.9

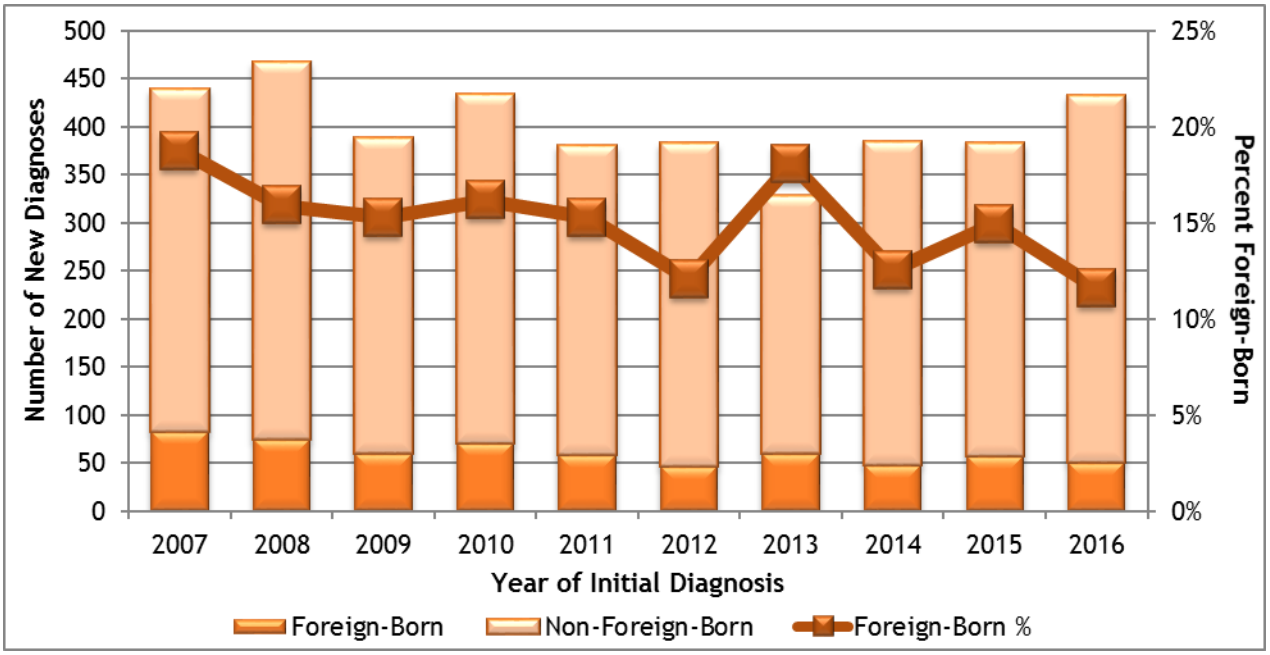
[14] U.S. Census Bureau, 2016 ACS 5-year Estimate Data Table B05003 (geography: State of Colorado). http://factfinder2.census.gov/faces/nav/jsf/pages/index.xhtml

15-19	1	25.0	0.5	3	75.0	3.9	4	3.9
20-24	25	89.3	13.7	3	10.7	3.9	28	3.9
25-29	30	78.9	16.4	8	21.1	10.4	38	10.4
30-34	35	74.5	19.1	12	25.5	15.6	47	15.6
35-39	28	70.0	15.3	12	30.0	15.6	40	15.6
40-44	29	76.3	15.8	9	23.7	11.7	38	11.7
45-49	15	57.7	8.2	11	42.3	14.3	26	14.3
50-54	8	57.1	4.4	6	42.9	7.8	14	7.8
55-59	1	20.0	0.5	4	80.0	5.2	5	5.2
60-64	4	100.0	2.2	0	0.0	0.0	4	0.0
≥65	2	50.0	1.1	2	50.0	2.6	4	2.6
Transmission Category								
MSM	122	100.0	66.7	---	---	---	122	46.9
IDU	3	100.0	1.6	0	0.0	0.0	3	1.2
MSM/IDU	4	100.0	2.2	---	---	---	4	1.5
Heterosexual Contact	10	24.4	5.5	31	75.6	40.3	41	15.8
Pediatric	5	41.7	2.7	7	58.3	9.1	12	4.6
Unknown	39	50.0	21.3	39	50.0	50.6	78	30.0
Region								
Urban	172	69.9	94.0	74	30.1	96.1	246	94.6
Rural	7	77.8	3.8	2	22.2	2.6	9	3.5
Frontier	4	80.0	2.2	1	20.0	1.3	5	1.9
Birth Country								
African	36	39.6	19.7	55	60.4	71.4	91	71.4
Asian	10	58.8	5.5	7	41.2	9.1	17	9.1
Caribbean	6	100.0	3.3	0	0.0	0.0	6	0.0
C. American	15	100.0	8.2	0	0.0	0.0	15	0.0
S. American	11	91.7	6.0	1	8.3	1.3	12	1.3
European	8	88.9	4.4	1	11.1	1.3	9	1.3
Mediterranean	1	100.0	0.5	0	0.0	0.0	1	0.0
Mexico	93	88.6	50.8	12	11.4	15.6	105	15.6
Middle East	0	0.0	0.0	1	100.0	1.3	1	1.3
Pacific Island	3	100.0	1.6	0	0.0	0.0	3	0.0
Other	0	0.0	0.0	0	0.0	0.0	0	0.0

Foreign-Borns account for 11.6% (260) of Colorado's new HIV diagnoses from years 2012 through 2016 and 11.2% (1,539) of Colorado's PLHIV through 2016. As **Figure 3.21** shows, the percent of foreign-born diagnoses has decreased from 2007 to 2012. In 2013, the percent of foreign-born new diagnoses increased (50.0%); however, the actual number of foreign-born diagnoses remained stable. This percent

increase in 2013 is due to a decrease in overall new diagnoses (N=327). From 2014 to 2016, the percent and case counts for foreign-born diagnoses has stabilized.

Figure 3.21: Newly Diagnosed Cases of HIV and Percentage of Foreign-born - Colorado (2007-2016)

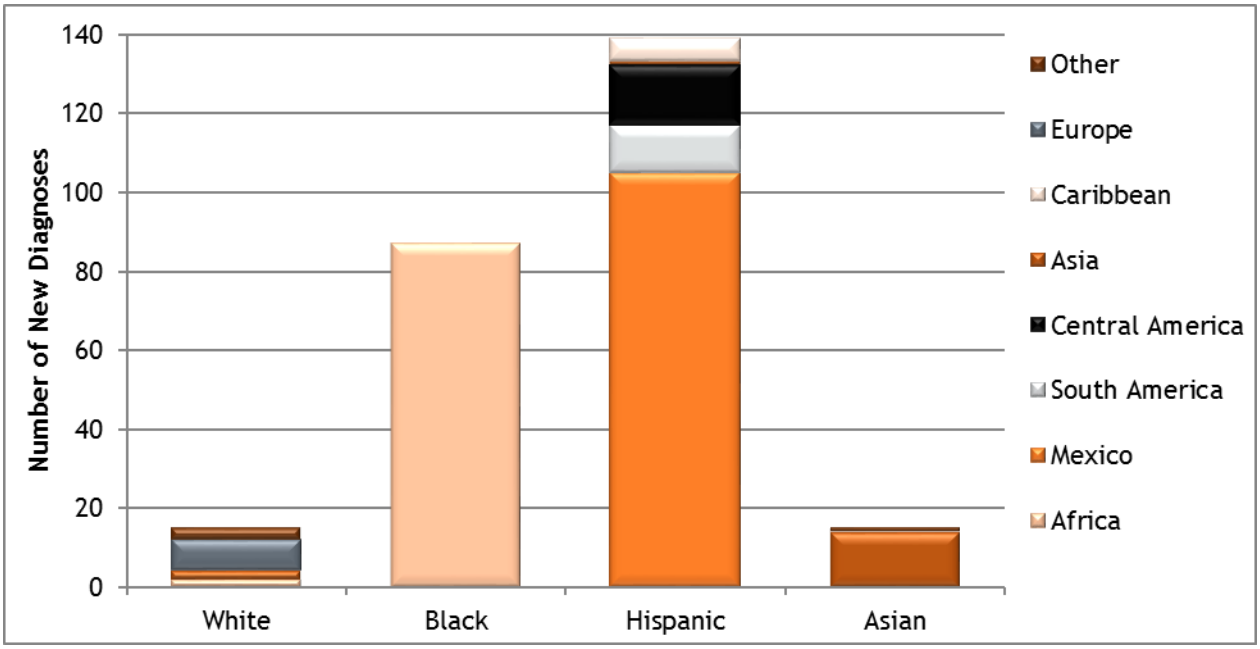


New HIV Diagnoses Among Foreign-Borns by Race/Ethnicity

From 2012-2016, 260 (13.6%) of the 1,906 new HIV diagnoses were foreign-born. Among the new HIV diagnoses in 2012-2016, 23.8% of those identified as Hispanics were foreign-born. Three-quarters of foreign-born Hispanics were born in Mexico (75.5%). One quarter (27.0%) of new HIV diagnoses among Non-Hispanic Blacks were foreign-born. All foreign-born Non-Hispanic Blacks were born in Africa with a majority (56.3%) born in the Horn of Africa (27.6%) or western Africa (28.7%). Nearly one half (46.9%) of new HIV diagnoses among Non-Hispanic Asians/Pacific Islanders were foreign-born. The largest proportion of foreign-born Non-Hispanic Asians/Pacific Islanders were born in southeastern Asia (73.3%). Cultural and language barriers can make these groups a challenge for prevention services and care providers.

Figure 3.22 shows the newly diagnosed foreign-born by race/ethnicity and region of birth. Of those, 139 (53.5%) were Hispanic, 87 (33.5%) were Non-Hispanic Black, 15 (5.8%) were Non-Hispanic White and 15 (5.8%) were Non-Hispanic Asian/Pacific Islander. Of the 139 Hispanics, 105 (75.5%) were born in Mexico. Of the 87 Non-Hispanic Blacks, 87 (100%) were born in Africa and of those 20 (23.0%) were born in Ethiopia. Of the 15 Non-Hispanic Asians/Pacific Islanders 11 (73.3%) were born in southeastern Asia. Of the 15 Non-Hispanic Whites, 8 (53.3%) were born in Europe.

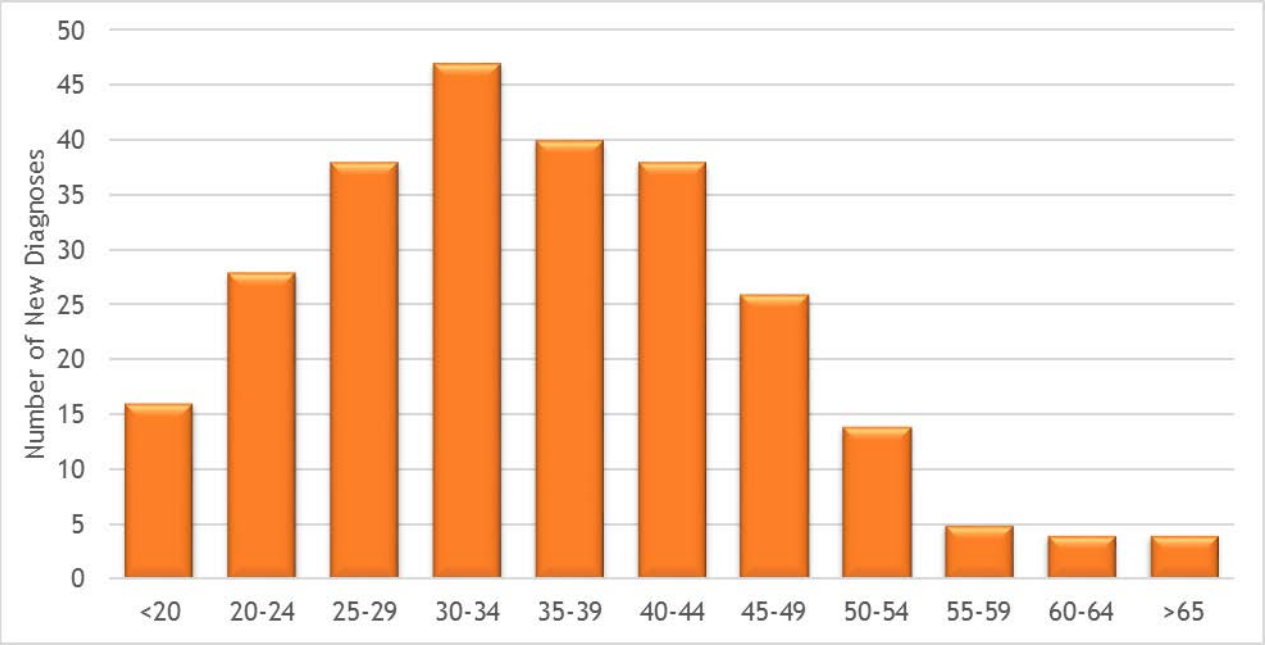
Figure 3.22: New Foreign-born HIV Diagnoses by Race/Ethnicity and Region of Birth – Colorado (2012-2016)



New HIV Diagnoses Among Foreign-Borns by Age

Figure 3.23 illustrates the number of HIV cases diagnosed between 2012 and 2016 among foreign-borns by age at diagnosis. The majority of new diagnoses occurred among the 30-34 age group followed by 35-39. This is slightly older than the overall new diagnoses in the same timeframe where the largest proportion occurred in the 25-29 age group followed by 20-24.

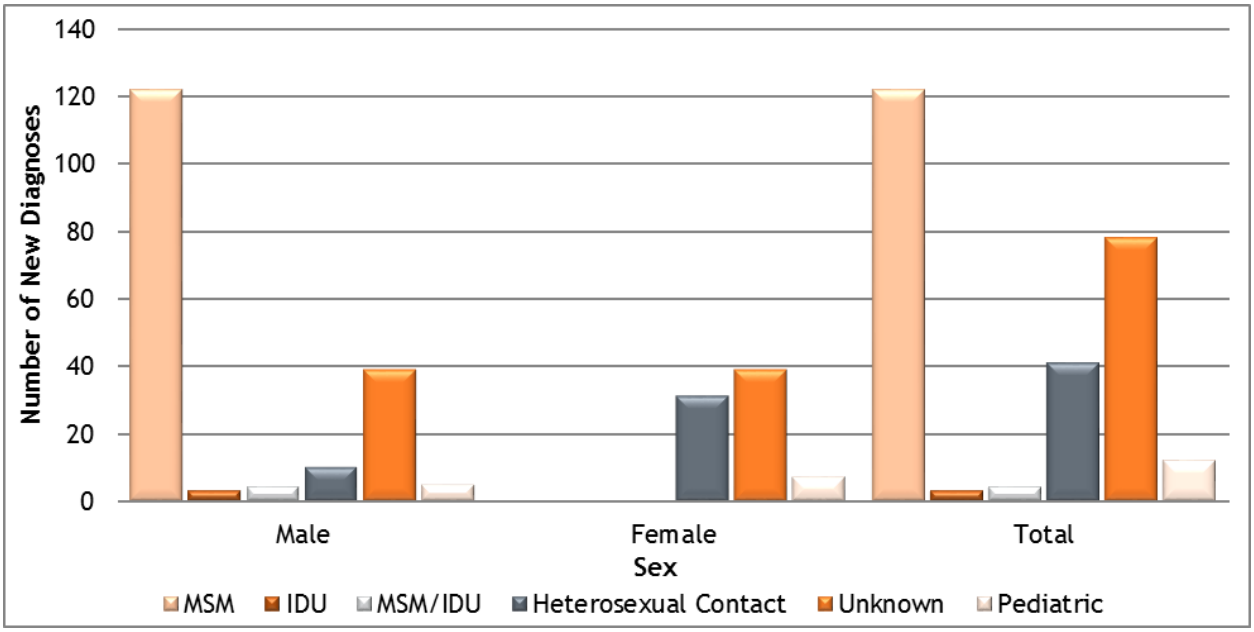
Figure 3.23: New HIV Diagnoses Among Foreign-Borns by Age at Diagnosis - Colorado (2012-2016)



New HIV Diagnoses Among Foreign-Borns by Transmission Category

Figure 3.24 illustrates the number of HIV cases diagnosed between 2012 and 2016 among foreign-borns by transmission category and sex. There was a greater percentage of new HIV diagnoses among foreign-born females with a transmission category of heterosexual contact compared to males, 40.3% and 5.5%, respectively. Similar to the overall new diagnoses, the MSM only transmission category constitutes the largest proportion.

Figure 3.24: New HIV Diagnoses Among Foreign-Borns by Sex and Transmission Category - Colorado (2012-2016)



Foreign-Borns Living with HIV

Table 3.9: Characteristics of Foreign-Borns Living with HIV Through 12/31/16 - Colorado

	Male			Female			Total	
	N	Row %	Column %	N	Row %	Column %	N	Column %
Total	1,101	71.5	100.0	438	28.5	100.0	1,539	100.0
Race/Ethnicity								
White, Non-Hispanic	102	83.6	9.3	20	16.4	4.6	122	7.9
Hispanic, all races	690	86.3	62.7	110	13.8	25.1	800	52.0
Black, Non-Hispanic	220	44.6	20.0	273	55.4	62.3	493	32.0
Asian/Pacific Islander, Non-Hispanic	77	70.0	7.0	33	30.0	7.5	110	7.1
Native American/Alaskan Native, Non-Hispanic	1	100.0	0.1	0	0.0	0.0	1	0.1
Multiple Races, Non-Hispanic	11	84.6	1.0	2	15.4	0.5	13	0.8
Unknown	0	0.0	0.0	0	0.0	0.0	0	0.0
Transmission Category								
MSM	585	100.0	53.1	---	---	---	585	38.0

IDU	68	86.1	6.2	11	13.9	2.5	79	5.1
MSM/IDU	55	100.0	5.0	---	---	---	55	3.6
Heterosexual Contact	205	42.4	18.6	278	57.6	63.5	483	31.4
Pediatric	24	36.4	2.2	42	63.6	9.6	66	4.3
Transfusion/Hemophilia	1	100.0	0.1	0	0.0	0.0	1	0.1
Unknown	163	60.4	14.8	107	39.6	24.4	270	17.5
Region								
Urban	1,023	71.0	92.9	418	29.0	95.4	1,441	93.6
Rural	67	79.8	6.1	17	20.2	3.9	84	5.5
Frontier	11	78.6	1.0	3	21.4	0.7	14	0.9
Unknown	0	0.0	0.0	0	0.0	0.0	0	0.0
Current Age Group								
<20	6	28.6	0.5	15	71.4	3.4	21	1.4
20-24	13	48.1	1.2	14	51.9	3.2	27	1.8
25-29	4	33.3	0.4	8	66.7	1.8	12	0.8
30-34	21	72.4	1.9	8	27.6	1.8	29	1.9
35-39	51	77.3	4.6	15	22.7	3.4	66	4.3
40-44	96	72.2	8.7	37	27.8	8.4	133	8.6
45-49	136	70.1	12.4	58	29.9	13.2	194	12.6
50-54	183	67.0	16.6	90	33.0	20.5	273	17.7
55-59	211	77.0	19.2	63	23.0	14.4	274	17.8
60-64	167	76.3	15.2	52	23.7	11.9	219	14.2
≥65	106	77.4	9.6	31	22.6	7.1	137	8.9
Age Group at HIV Diagnosis								
<10	23	41.8	2.1	32	58.2	7.3	55	3.6
10-14	5	31.3	0.5	11	68.8	2.5	16	1.0
15-19	16	53.3	1.5	14	46.7	3.2	30	1.9
20-24	157	73.4	14.3	57	26.6	13.0	214	13.9
25-29	240	75.9	21.8	76	24.1	17.4	316	20.5
30-34	227	75.7	20.6	73	24.3	16.7	300	19.5
35-39	184	73.3	16.7	67	26.7	15.3	251	16.3
40-44	129	78.7	11.7	35	21.3	8.0	164	10.7
45-49	67	71.3	6.1	27	28.7	6.2	94	6.1
50-54	30	65.2	2.7	16	34.8	3.7	46	3.0
55-59	10	38.5	0.9	16	61.5	3.7	26	1.7
60-64	9	52.9	0.8	8	47.1	1.8	17	1.1
≥65	4	40.0	0.4	6	60.0	1.4	10	0.6
Birth Country								

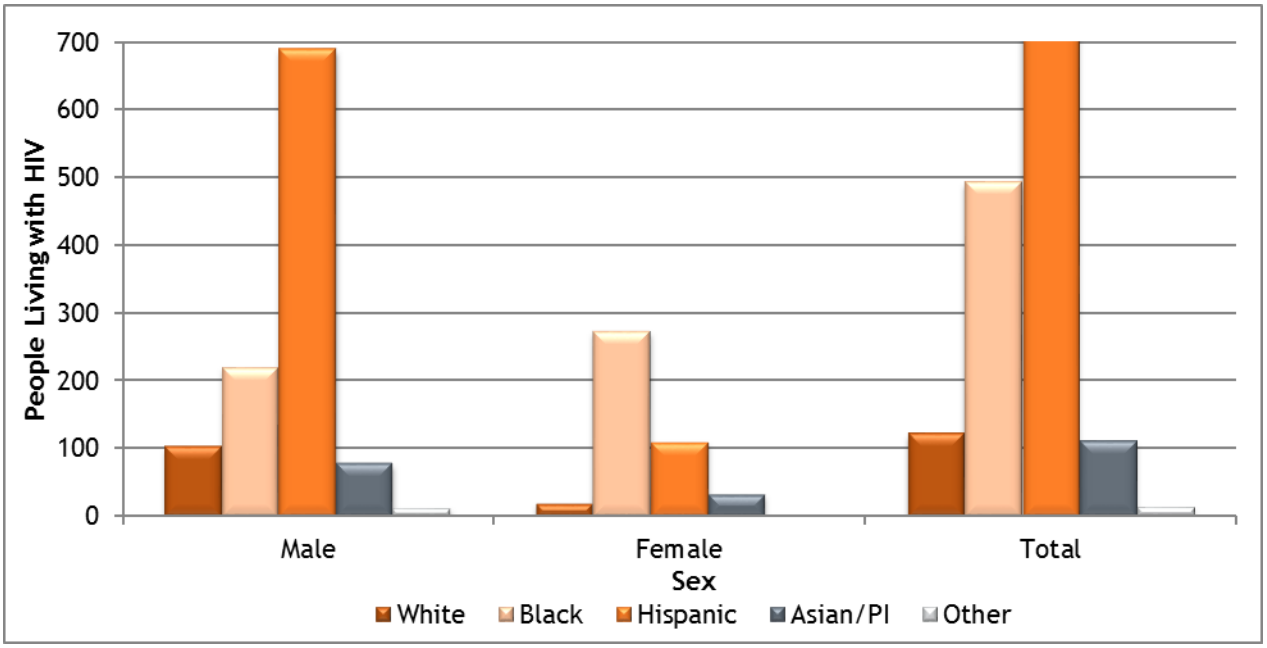
African	209	44.3	19.0	263	55.7	60.0	472	30.7
Asian	86	72.9	7.8	32	27.1	7.3	118	7.7
Canada	9	90.0	0.8	1	10.0	0.2	10	0.6
Caribbean	76	76.0	6.9	24	24.0	5.5	100	6.5
C. American	54	75.0	4.9	18	25.0	4.1	72	4.7
S. American	64	92.8	5.8	5	7.2	1.1	69	4.5
European	68	82.9	6.2	14	17.1	3.2	82	5.3
Mediterranean	2	100.0	0.2	0	0.0	0.0	2	0.1
Mexico	506	87.5	46.0	72	12.5	16.4	578	37.6
Middle East	9	75.0	0.8	3	25.0	0.7	12	0.8
Pacific Island	14	87.5	1.3	2	12.5	0.5	16	1.0
Other	4	50.0	0.4	4	50.0	0.9	8	0.5

*Non-Hispanic Native American/Alaska Native PLWH was born in Canada.

Foreign-Borns Living with HIV by Race/Ethnicity

A greater percentage of foreign-born females living with HIV were Non-Hispanic Black compared to foreign-born males living with HIV, 62.3% and 20.0%, respectively. A greater percentage of foreign-born males living with HIV were Hispanic compared to foreign-born females living with HIV, 62.7% and 25.1%, respectively.

Figure 3.25: Foreign-Borns Living with HIV Through 12/31/16 by Sex and Race/Ethnicity - Colorado

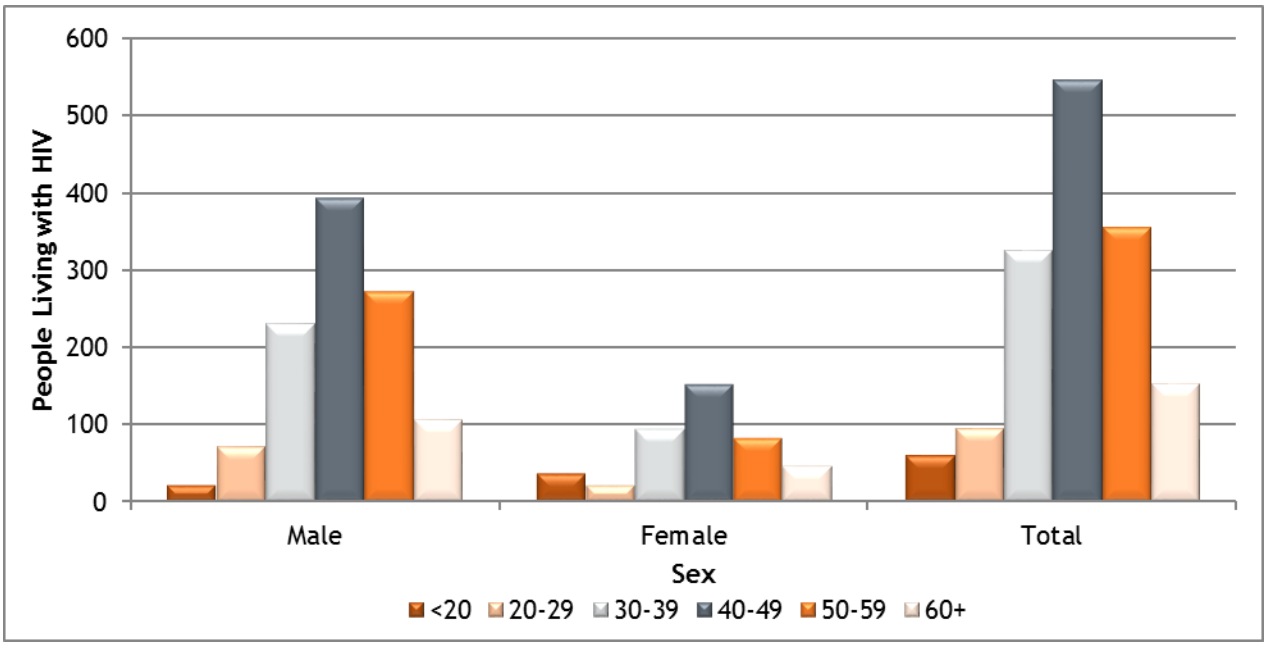


Other includes Non-Hispanic Multiple Races and Unknown.

Foreign-Borns Living with HIV by Age

A greater percentage of foreign-born females living with HIV were less than 20 years old compared to foreign-born males living with HIV, 8.5% and 2.1%, respectively. Conversely, a greater percentage of foreign-born males living with HIV were 50-59 years old compared to foreign-born females living with HIV, 24.8% and 19.0%, respectively.

Figure 3.26: Foreign-Borns Living with HIV Through 12/31/16 by Sex and Current Age - Colorado

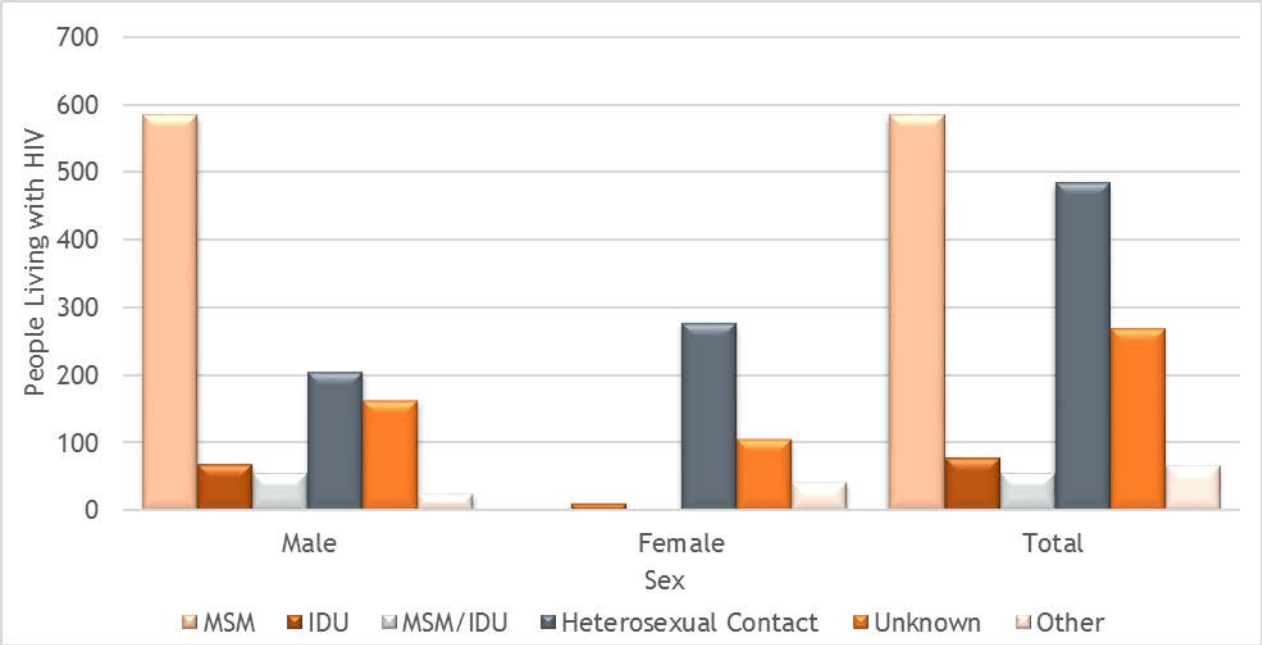


Current Age calculated as of 12/31/16.

Foreign-Borns Living with HIV by Transmission Category

Figure 3.27 demonstrates that the majority of foreign-born male PLHIV in Colorado had a transmission category of MSM (53.1%). The next largest proportion was heterosexual contact (18.6%). Heterosexual contact accounts for the majority of foreign-born female PLHIV in Colorado (63.5%).

Figure 3.27: Foreign-Borns Living with HIV Through 12/31/16 by Sex and Transmission Category Reported - Colorado

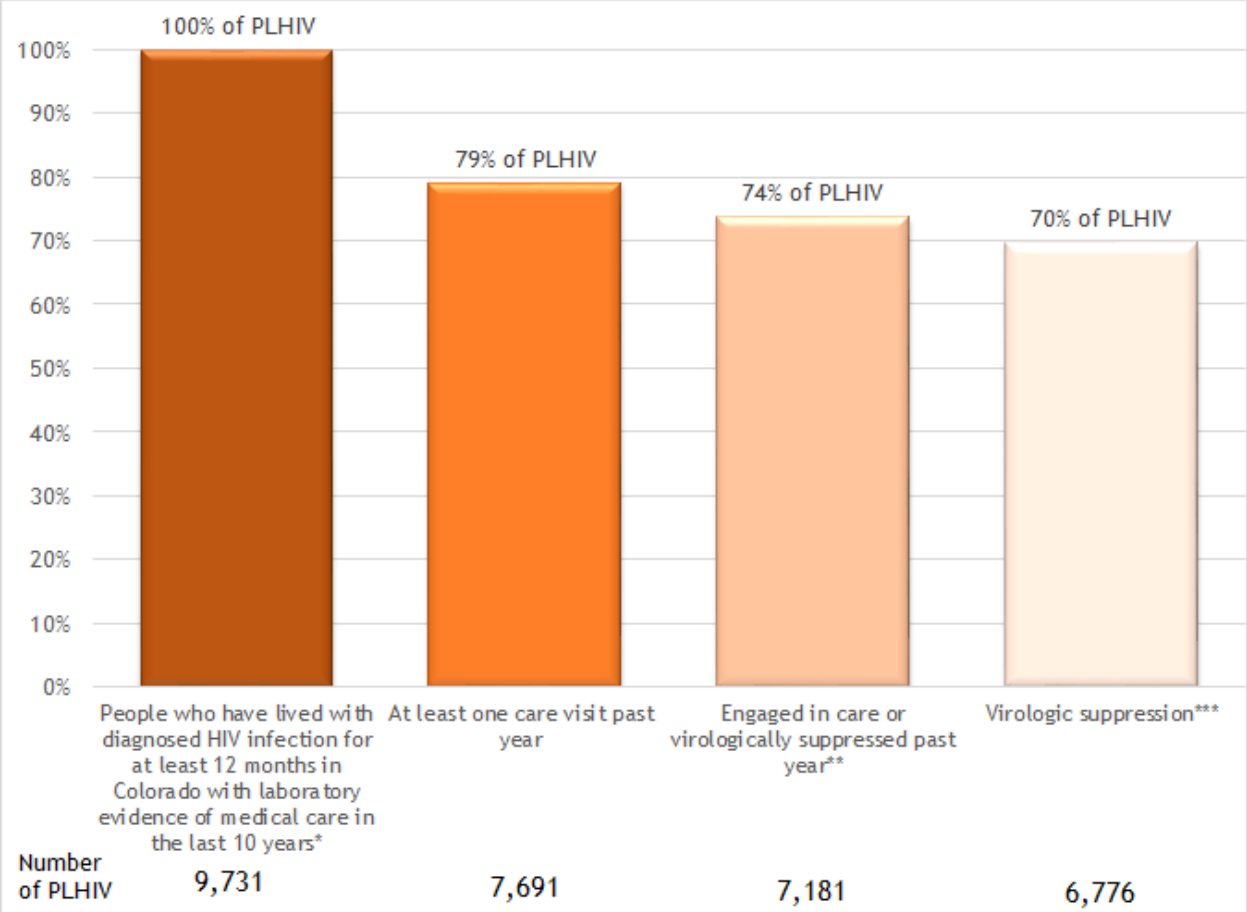


HIV Care Continuum

Summary

- 79.0% were in care.
- 73.8% were retained in care.
- 69.6% were virally suppressed.

Figure 4.1: HIV Care Continuum as of December 31, 2016, Colorado



*Data source: Enhanced HIV/AIDS Reporting System (eHARS). Defined as persons diagnosed with HIV (regardless of stage of disease) through year-end 2015, who were alive at year-end 2016.
**Data source: CDPHE's CD4/VL database and eHARS. Calculated as the percentage of persons who had ≥2 CD4 or viral load results at least 90 days apart during 2016 among those diagnosed with HIV through year-end 2015 and alive at year-end 2016 or as the percentage of persons who were virologically suppressed at the time of their last lab during 2016, but did not have any additional lab >90 days away from this during 2016.
*** Calculated as number of persons who had suppressed VL (<200 copies/mL) at most recent test during 2016, among those diagnosed with HIV through year-end 2015 and alive at year-end 2016.

Definitions

Diagnosed: People diagnosed with HIV through December 31, 2015, alive as of December 31, 2016, live in Colorado and have lab evidence of medical care in Colorado in the last 10 years (2007-2016).
Engaged in Care: Percent of people diagnosed with at least one CD4 or viral load lab test during the time period of January 1, 2016 – December 31, 2016, reported to the state.
Retained in Care: Percent of people diagnosed with at least two lab tests at least 90 days apart during the time period of January 1, 2016 – December 31, 2016, reported to the state OR virally suppressed at the time of their last lab during the time period of January 1, 2016 – December 31, 2016, but did not have any additional lab >90 days apart during this time period.
Virally Suppressed: Percent of people diagnosed where their most recent (January 1, 2016 – December 31, 2016) viral load test had a result of <200 cells/µL.

Figure 4.2: HIV Care Continuum by Sex as of December 31, 2016, Colorado

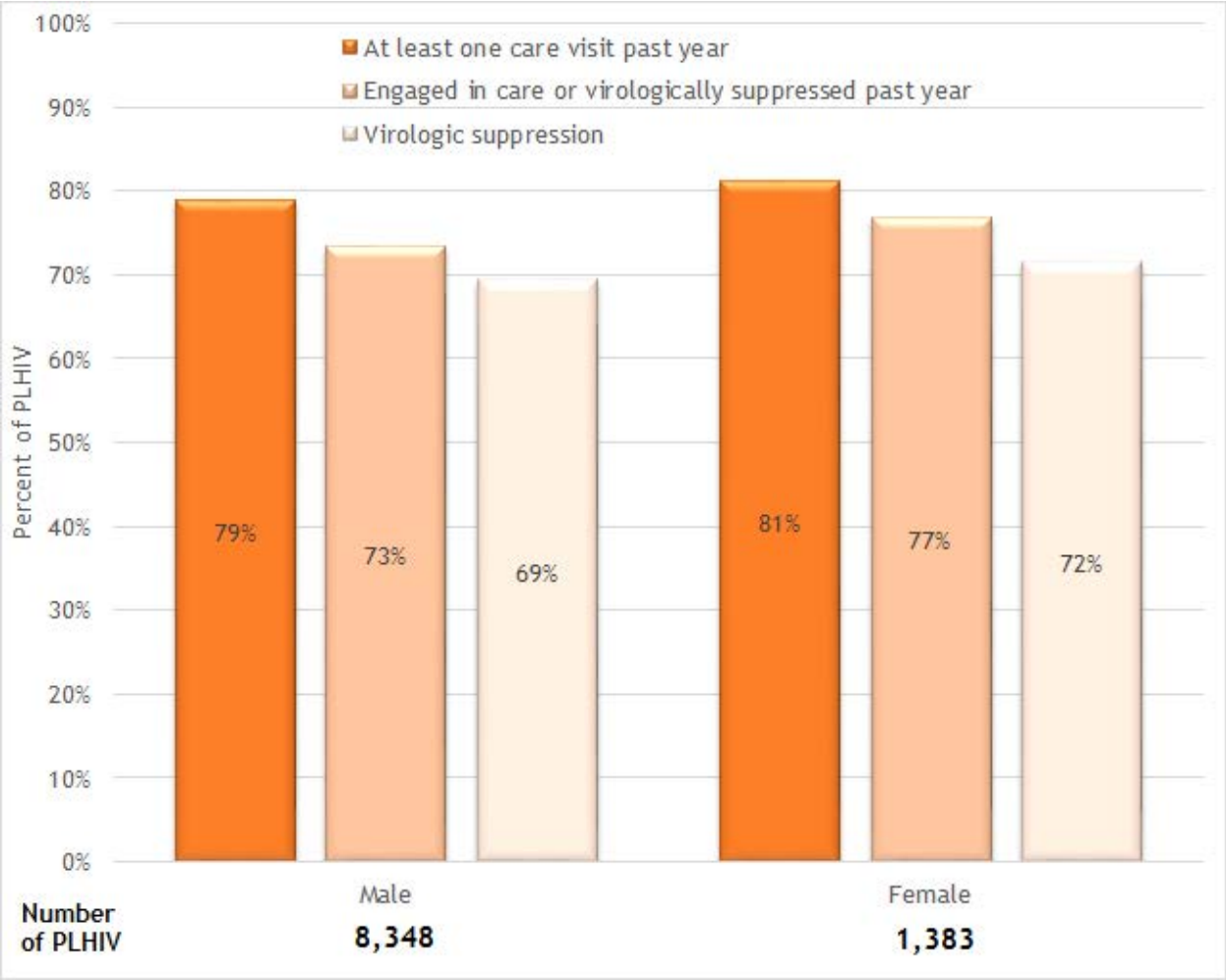


Figure 4.3: HIV Care Continuum by Race/Ethnicity as of December 31, 2016, Colorado

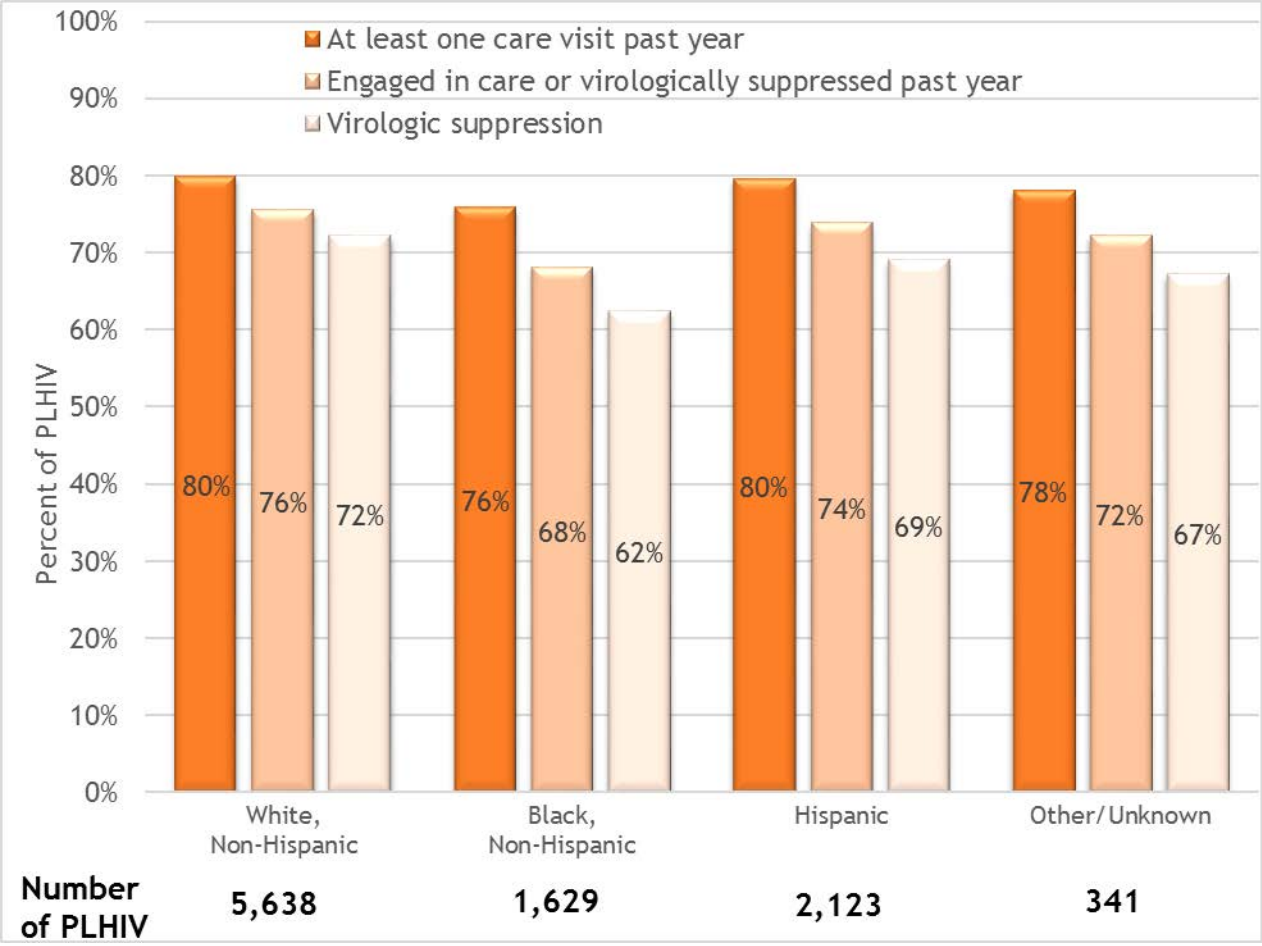


Figure 4.4: HIV Care Continuum by Current Age as of December 31, 2016, Colorado

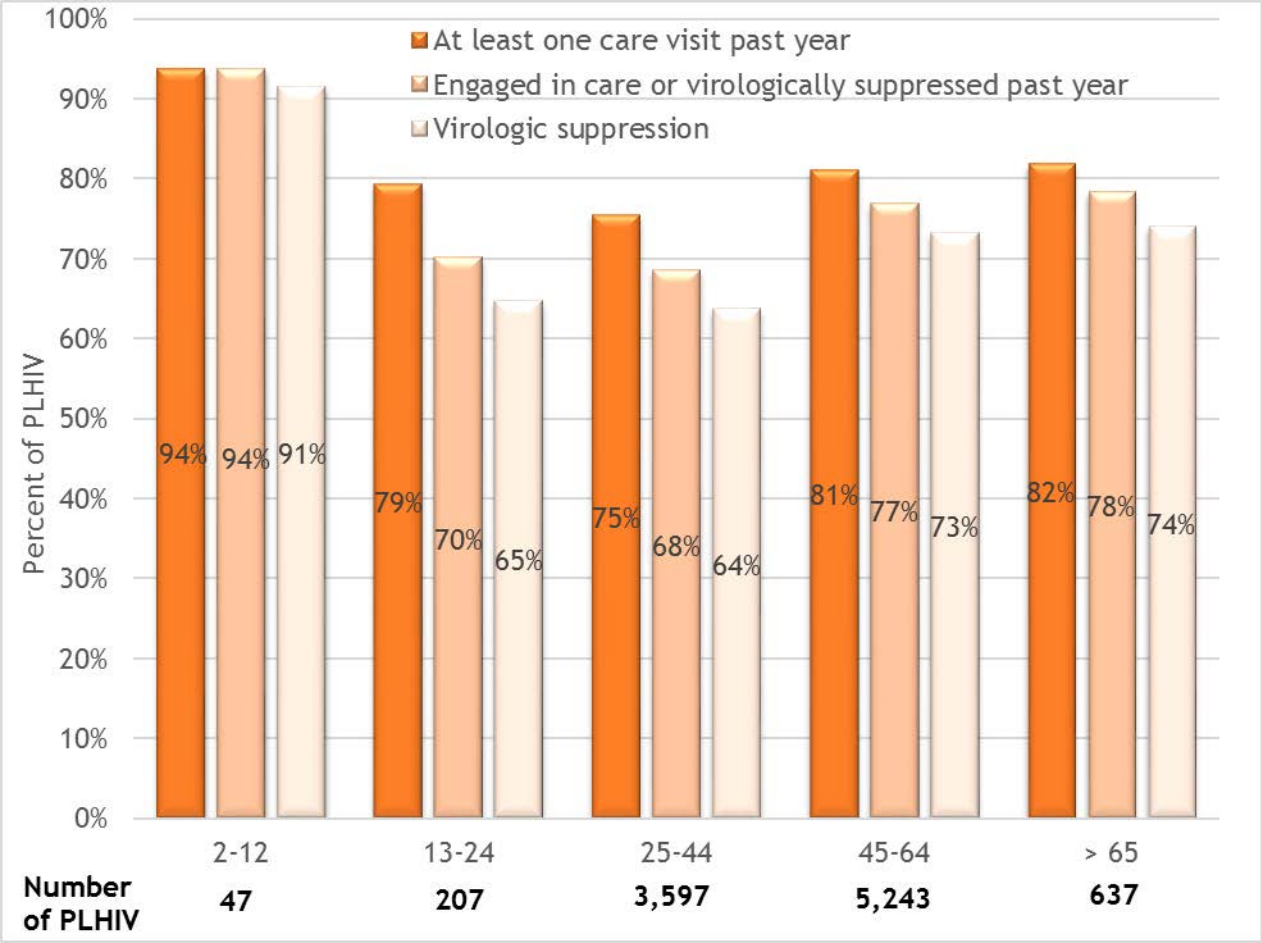
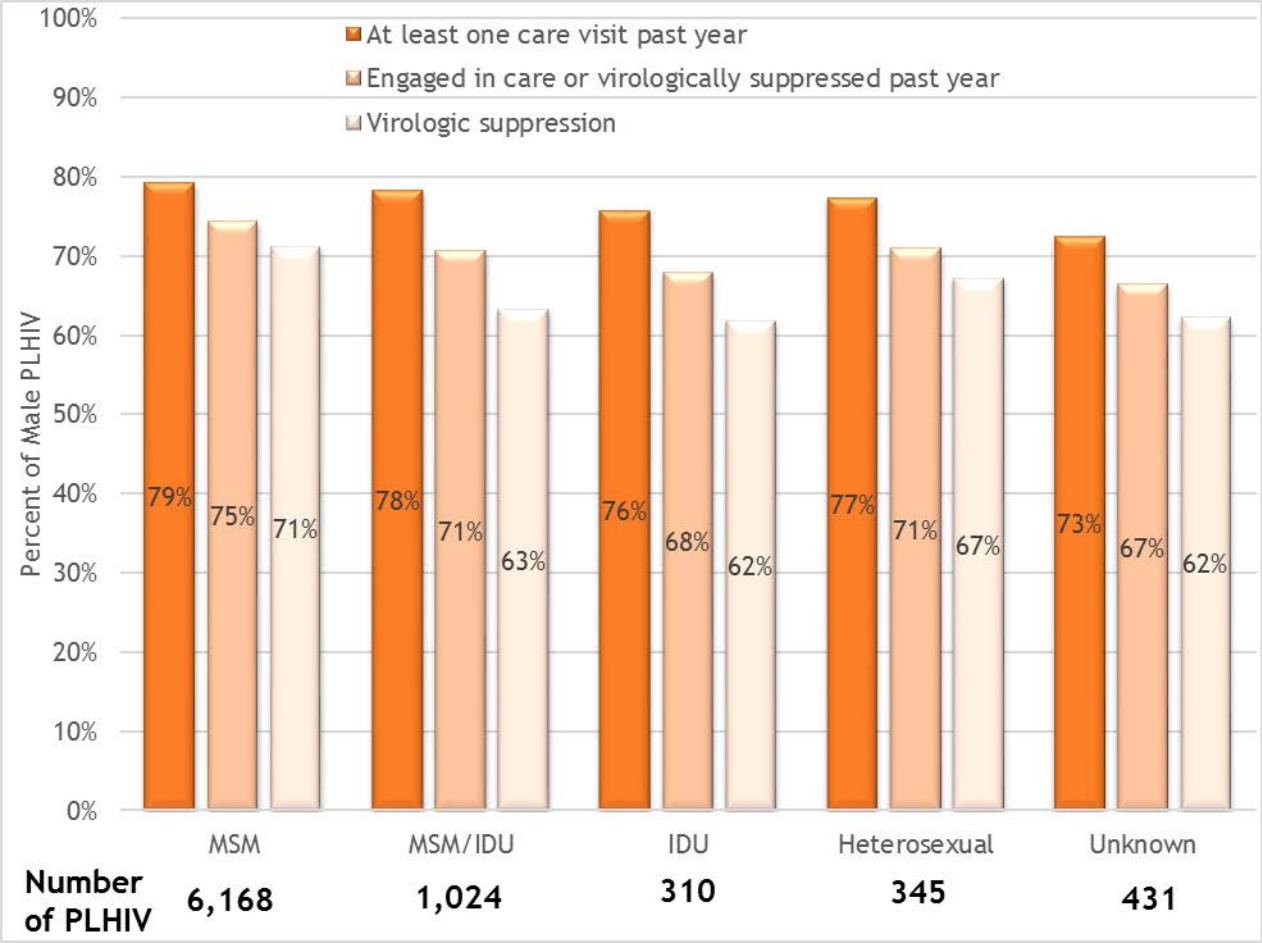
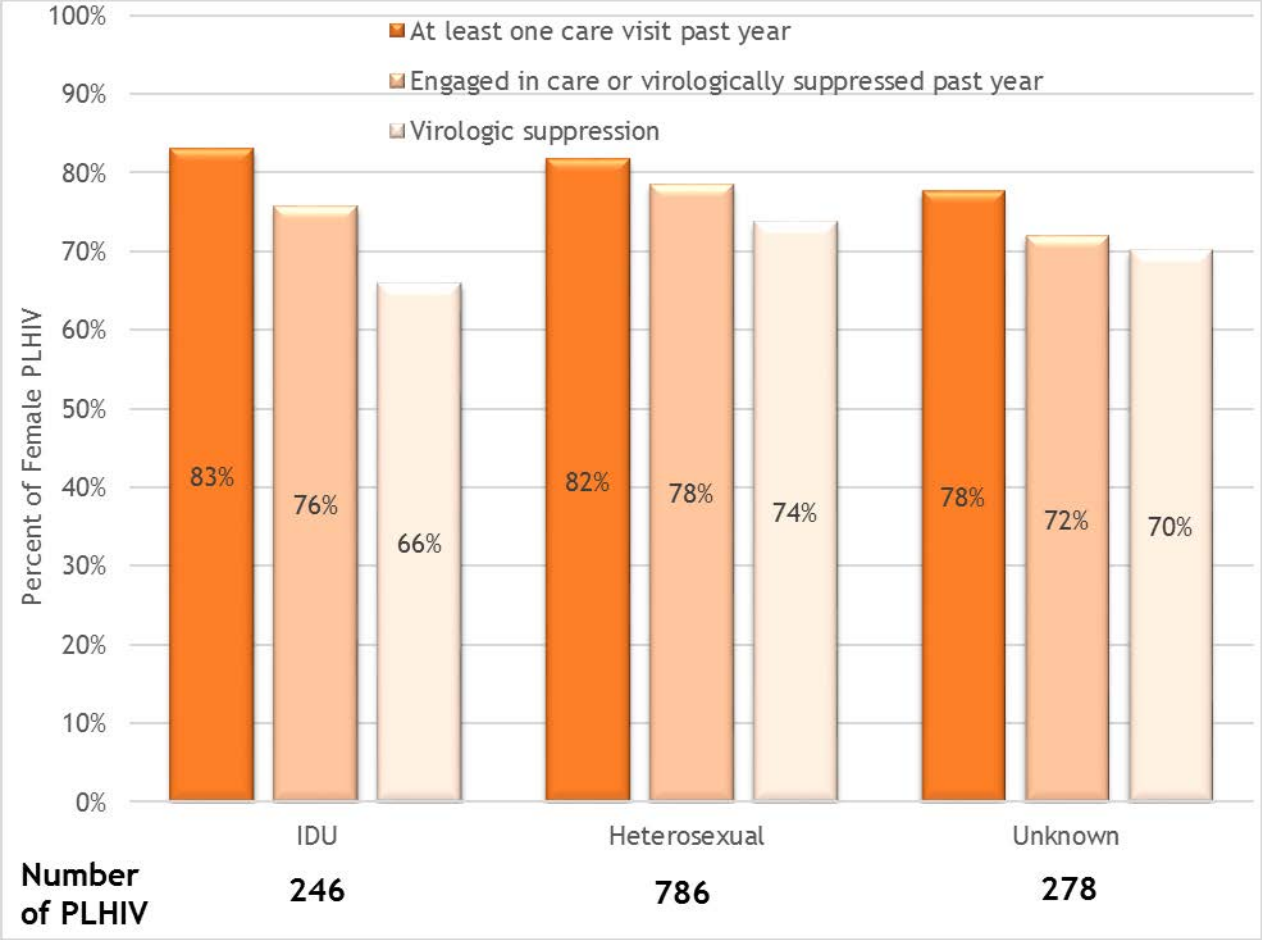


Figure 4.5: HIV Care Continuum by Transmission Category Among Males as of December 31, 2016, Colorado



Pediatric and transfusion/Hemophiliac risks are not included in charts due to small numbers.

Figure 4.6: HIV Care Continuum by Transmission Category Among Females as of December 31, 2016, Colorado



Pediatric and transfusion/Hemophiliac risks are not included in charts due to small numbers.

Figure 4.7: HIV Care Continuum by Race/Ethnicity Among Males as of December 31, 2016, Colorado

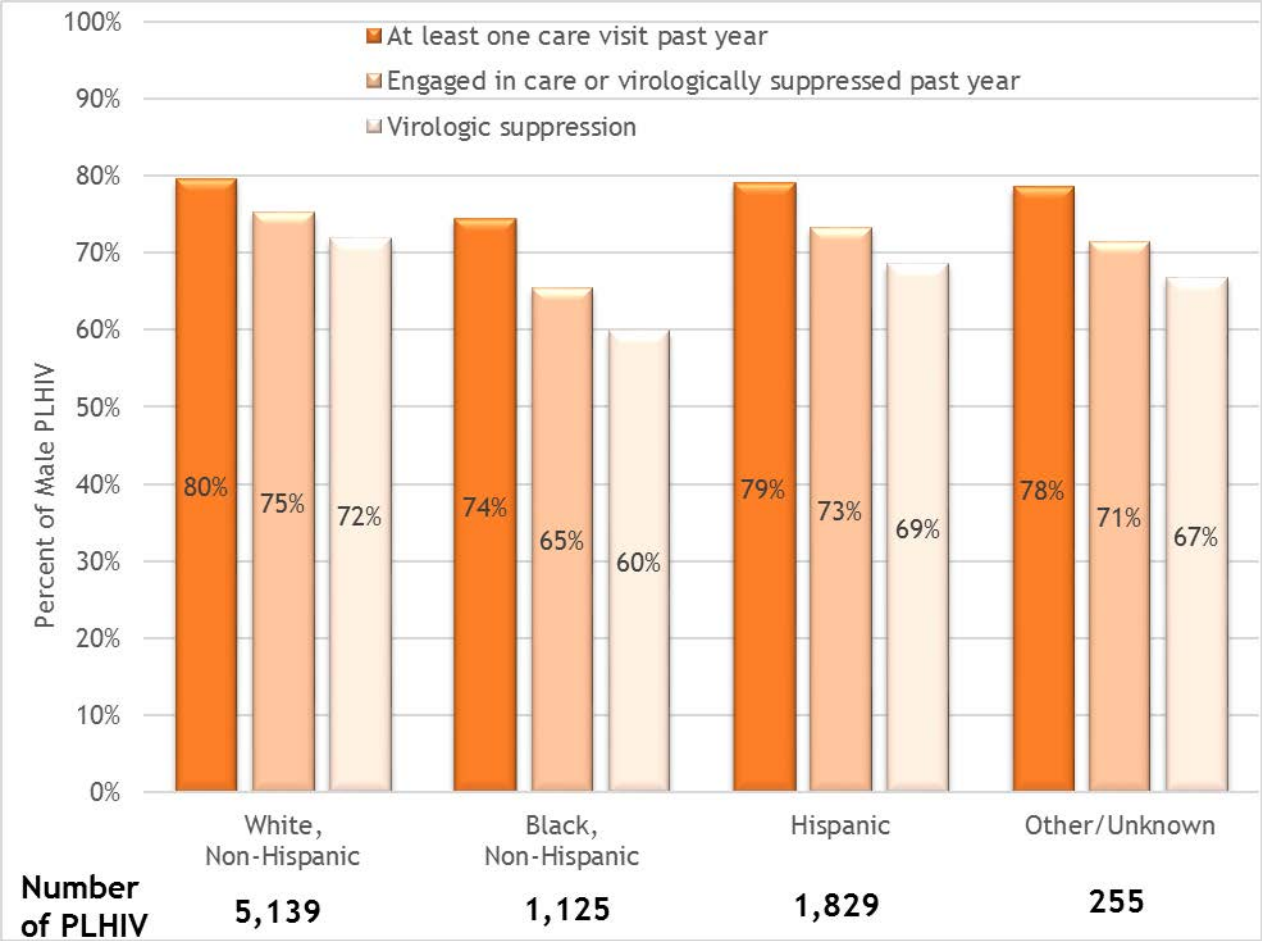


Figure 4.8: HIV Care Continuum by Race/Ethnicity Among Females as of December 31, 2016, Colorado

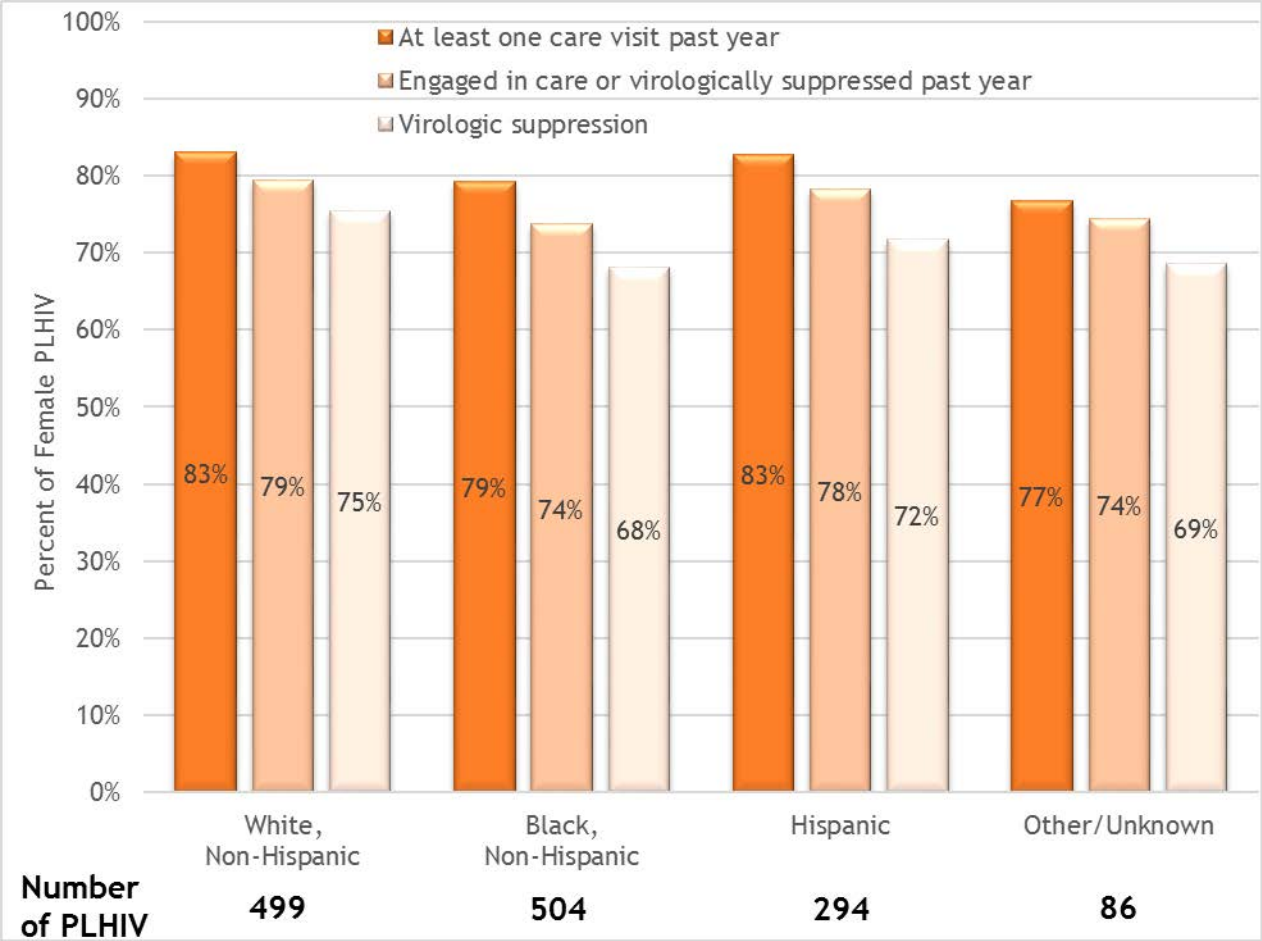


Figure 4.9: HIV Care Continuum by Current Age Among Males as of December 31, 2016, Colorado

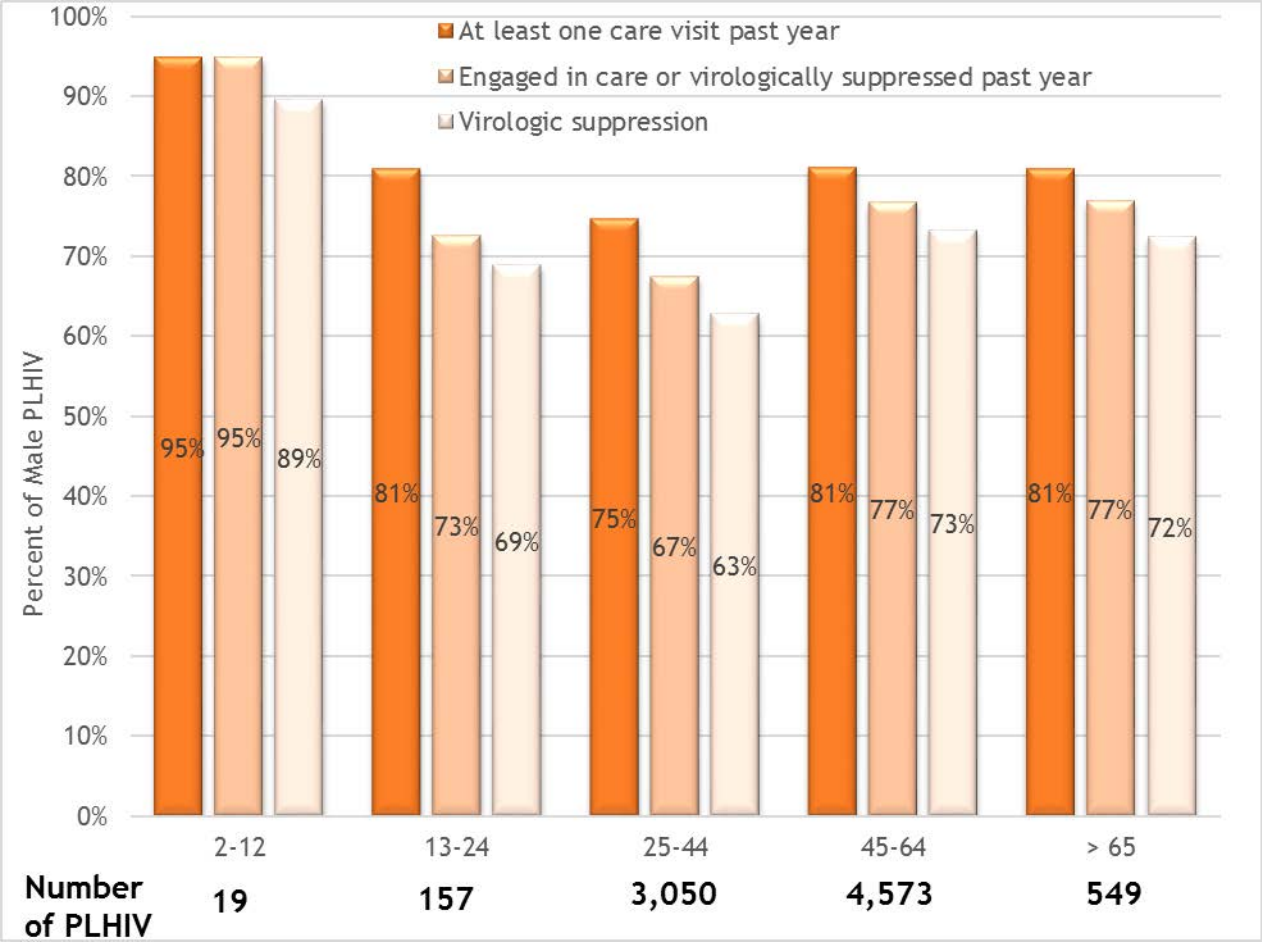
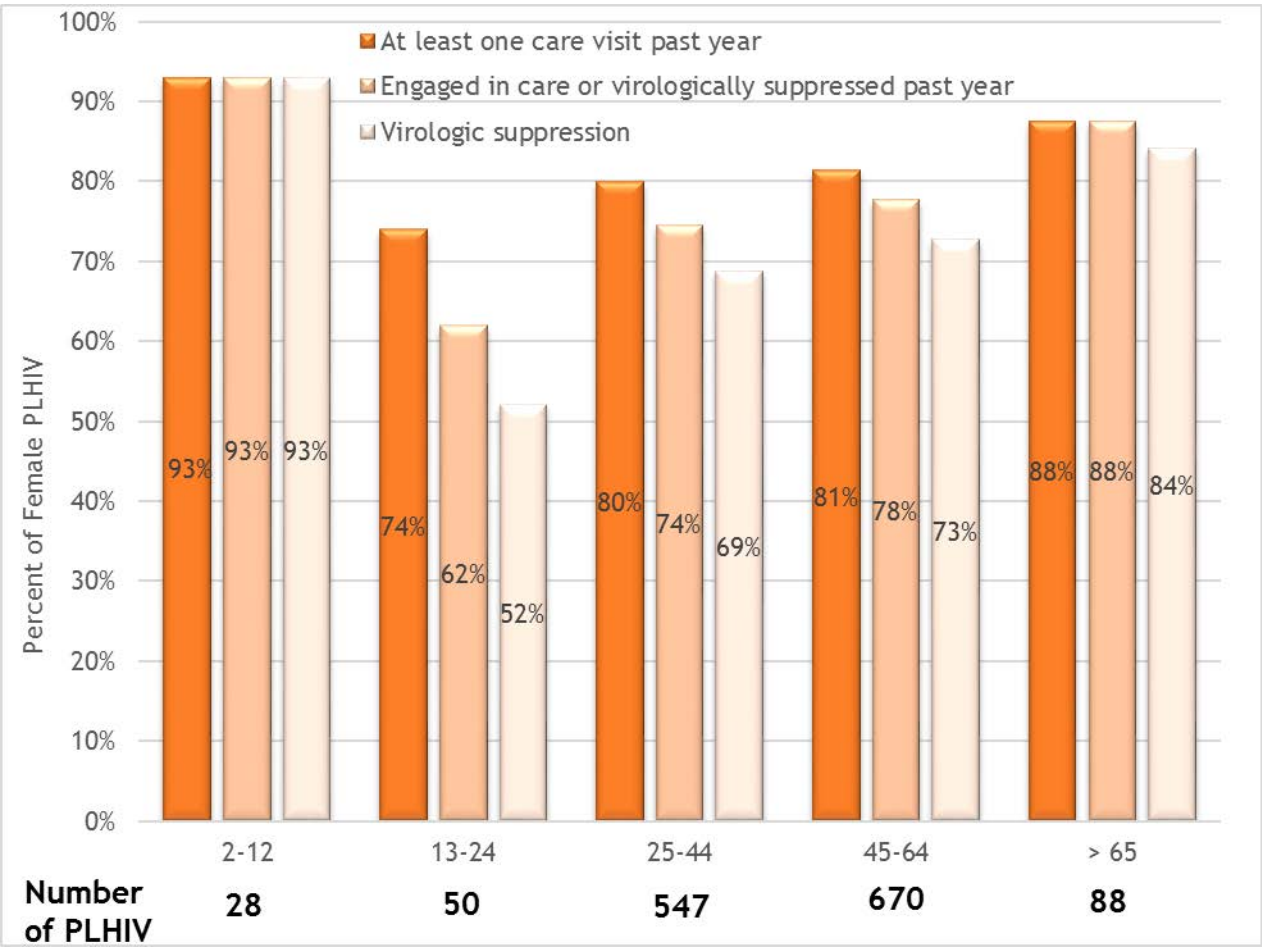


Figure 4.10: HIV Care Continuum by Current Age Among Females as of December 31, 2016, Colorado



National HIV Behavioral Surveillance - Denver, Colorado

Summary

- Among 2016 HET participants, 63.6% were Hispanic, 28.5% were Non-Hispanic Black and 4.2% were Non-Hispanic White.
- The participants' ages ranged from 18-60 with a mean of 40.4 and median of 41.
- Participants identified themselves mostly as heterosexual (89.7%), with 9.6% identifying as bisexual and less than 1.0% as homosexual.
- Among participants, 19.4% have experienced homelessness in the past 12 months with 58.2% of those participants identifying as currently experiencing homelessness.
- Nine-tenths (91.2%) of participants currently have health insurance with 90.6% of those participants having public insurance.
- More than four-fifths (84.8%) of participants reported visiting a health care provider in the prior 12 months.
- Over half (58.7%) of participants used non-injection non-prescription drugs in the prior 12 months with 87.4% of those participants reporting using marijuana.
- A majority (72.0%) of participants had an HIV test sometime in their life with 39.2% of those participants receiving a test in the prior 12 months.
- Less than one quarter (24.6%) of participants reported receiving free condoms in the prior 12 months, and only 4.2% reported hearing of PrEP prior to the study.

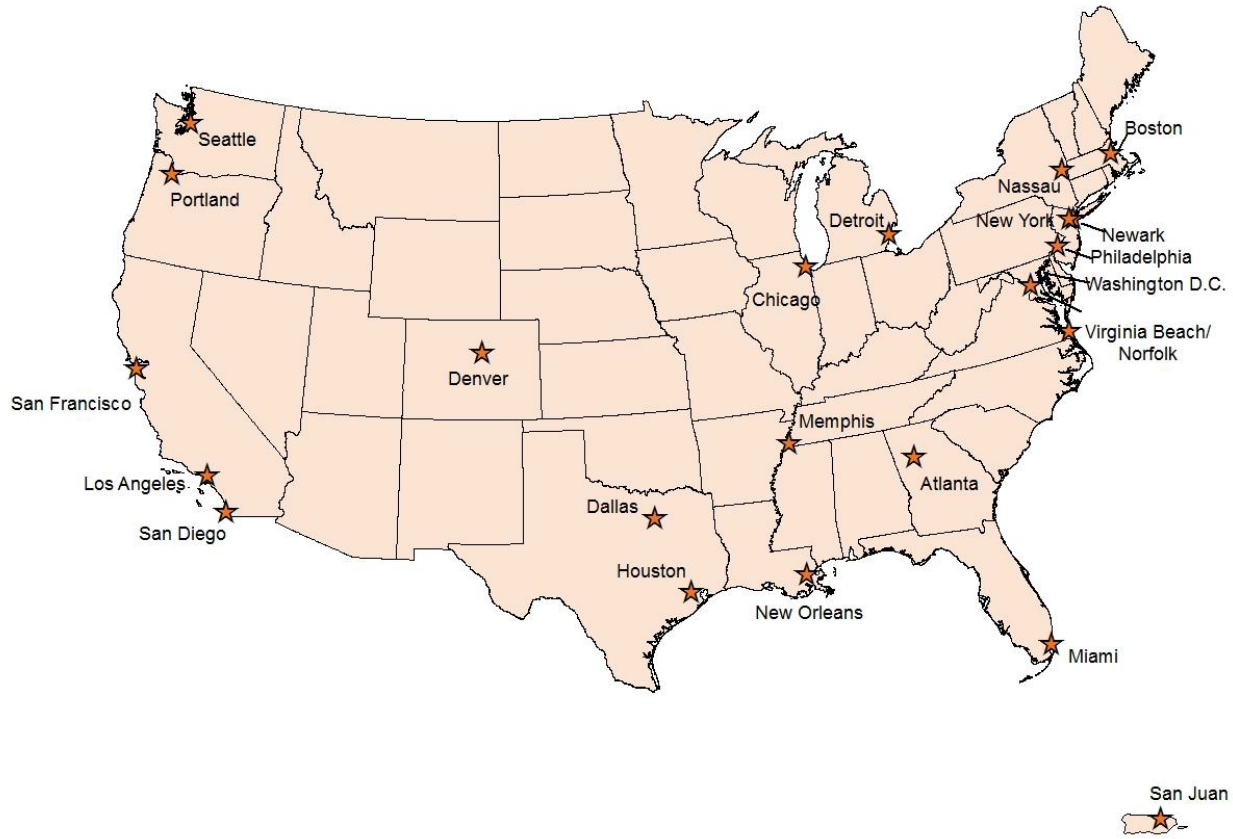
Introduction

National HIV Behavioral Surveillance System

In 2003, CDC, in collaboration with state and local health departments, initiated the National HIV Behavioral Surveillance (NHBS) system. The objective of the NHBS system is to monitor risk behaviors and access to prevention services among three populations at highest risk for HIV acquisition in the United States: gay, bisexual, and other men who have sex with men (collectively referred to as MSM), people who inject drugs (referred to as injection drug use or IDU cycle), and heterosexuals at increased risk of HIV acquisition (HET). The system involves rotating 12-month cycles of surveillance in these three populations.

Denver is one of 22 participating metropolitan statistical areas (MSAs) across the country (**Figure 5.1**). The Denver NHBS system is a collaborative effort between CDPHE and Denver Public Health (DPH). In 2016, the fourth cycle interviewing heterosexuals at increased risk of HIV acquisition was completed (HET4); this is the third and last population in the fourth round.

Figure 5.1. Participating Metropolitan Statistical Areas in the National HIV Behavioral Surveillance System



Overall Methods

A core questionnaire is administered to participants in all three cycles. The questionnaire includes information about demographics, sexual behavior, injection and non-injection drug use, and HIV testing behavior. Local questions are added to each cycle to address current events and specific issues related to the Denver MSA. Interviews are administered in person using a handheld tablet computer. Participation is voluntary and anonymous. Participants are compensated when they complete the survey. Voluntary HIV testing is conducted with extra compensation provided. Participant recruitment occurs in two ways, through Venue-Based Sampling (VBS) and Respondent-Driven Sampling (RDS). Venue-Based Sampling is completed for the MSM cycles and RDS is completed for the HET and IDU cycles.

Venue-Based Sampling: Local surveillance staff conduct venue-based, time-space sampling following a national surveillance protocol that organized activities into three components. First, staff conduct formative research to identify the venues, times and methods to recruit MSM. Next, staff construct sampling frames of eligible venues and venue-specific, daytime periods that met MSM attendance, logistical, and safety eligibility criteria. The final component involves recruiting and interviewing men during sampling events.

Participants are recruited from local bars, dance clubs, restaurants, community-based organizations, and bathhouses in Denver. Field interviewers establish boundaries (an area or a line) for the selection of men at each venue. Men entering the established boundary are approached systematically for recruitment. Those eligible for participation who agree to participate are accompanied to a private area to conduct the interview.

Respondent-Driven Sampling: Participants are recruited through a chain-referral strategy called Respondent-Driven Sampling (RDS). RDS is started with a limited number of "seeds" identified through interviews with key stakeholders. Seeds are given up to five "coupons" to give to or "refer" other people in their network. Referrals are interviewed at several sites including community-based organizations and local public health departments. Participants are compensated for each eligible person they recruit into the project. Referrals are accepted until the required sample size is reached.

Heterosexual Cycle

Interviews for the NHBS-HET4 cycle were conducted between July 5 and December 23, 2016. Participant eligibility stated that all potential participants must have: 1) presented a valid coupon, 2) been between 18 and 60 years of age, 3) reported vaginal or anal sex with an opposite sex partner in the past 12 months, 4) lived in the Denver MSA, 5) been male or female (not transgender), 6) not previously completed an interview for NHBS-HET4, 7) been able to complete the eligibility screener and interview in English or Spanish, and 8) been able to provide consent.

Cycle Demographics

As shown in **Table 5.1**, the majority of HET participants in 2016 were Hispanic (63.6%) and female (63.6%). Nearly half of participants were employed full- or part-time (45.2%). During 2016, 70% had an annual income below $20,000, and 91.2% had health insurance. One-fifth (19.4%) of participants experienced homelessness in the past 12 months, and 58.2% of those participants experiencing homelessness at the time of the survey.

Table 5.1. Sociodemographic Characteristics of Participants in the HET4 cycle, National HIV Behavioral Surveillance Study – Denver, 2016

Gender	N	%	Total
Male	148	36.4	407
Female	259	63.6	407
Transgender	0	0.0	407
Race/Ethnicity			
White, Non-Hispanic	17	4.2	407
Black, Non-Hispanic	116	28.5	407
Hispanic	259	63.6	407
Native American/Alaskan Native, Non-Hispanic	8	2.0	407
Asian/Pacific Islander, Non-Hispanic	1	0.2	407

Multiple Race, Non-Hispanic	6	1.5	407
Age group (years)			
18-24	54	13.3	407
25-34	94	23.1	407
35-44	76	18.7	407
45-54	117	28.7	407
≥55	66	16.2	407
Education			
<High School	142	34.9	407
High School or Equivalent	201	49.4	407
>High School	64	15.7	407
Sexual Identity			
Homosexual	3	0.7	407
Bisexual	39	9.6	407
Heterosexual	365	89.7	407
Health Insurance			
Currently have health insurance	371	91.2	407
Private	34	9.2	371
Public	336	90.6	371
Other	1	0.3	371
None	36	8.8	407
Annual Income			
$0-9,999	129	31.7	407
$10,000-19,999	156	38.3	407
$20,000-39,999	86	21.1	407
$40,000-74,999	29	7.1	407
$75,000 or more	7	1.7	407
Employment Status			
Full-time or Part-time	184	45.2	407
Homemaker	31	7.6	407
Full-time Student	9	2.2	407
Retired	6	1.5	407
Disabled	99	24.3	407
Unemployed	65	16.0	407
Other	13	3.2	407
Incarceration History			
Ever been in jail or prison for more than 24 hours	261	64.1	407
Been in jail or prison for more than 24 hours in the past 12 months	67	25.7	261
Ever homeless			

No	328	80.6	407
Yes, not currently	33	41.8	79
Yes, currently	46	58.2	79

Note: Categories may not add up to the total due to missing data for individual variable. Percentages do not reflect missing data.

High-Risk Sexual Behaviors

The vast majority of both males and females had their first sexual experience before or at age 20, 97.3% for men and 94.2% for women. The percent reporting condomless sex among males ranged from 43.3% for vaginal sex with a casual partner to 94.4% for anal sex with a main partner. Among females, the percent reporting condomless sex ranged from 44.1% for vaginal sex with a casual partner to 94.1% for vaginal sex with a main partner. A larger percent of males knew the HIV status of their last partner compared to females (53.4% and 44.8%, respectively).

Table 5.2. Prevalence of HIV Surveillance High-Risk Sexual Behaviors of Participants in the HET4 Cycle by Gender, National HIV Behavioral Surveillance Study - Denver, 2016

	Male			Female		
Age at first sexual experience	**N**	**%**	**Total**	**N**	**%**	**Total**
≤20	144	97.3	148	244	94.2	259
21-30	4	2.7	148	14	5.4	259
>30	0	0.0	148	1	0.4	259
Number of partners in the last 12 months						
0	0	0.0	148	0	0.0	259
1-10	133	89.9	148	254	98.1	259
11-20	6	4.1	148	2	0.8	259
21-30	3	2.0	148	0	0.0	259
>30	6	4.1	148	3	1.2	259
Number of main partners in the last 12 months						
0	24	16.2	148	29	11.2	259
1-2	113	76.4	148	224	86.5	259
3-5	8	5.4	148	5	1.9	259
6-9	3	2.0	148	0	0.0	259
>10	0	0.0	148	1	0.4	259
Number of casual partners in the last 12 months						
0	68	45.9	148	145	56.0	259
1-10	66	44.6	148	109	42.1	259
11-20	6	4.1	148	2	0.8	259

21-30	4	2.7	148	1	0.4	259
>30	4	2.7	148	2	0.8	259
Main Partners						
Condomless vaginal sex in the last 12 months	116	94.3	123	218	94.8	230
Condomless anal sex in the last 12 months	23	95.8	24	40	93.0	43
Casual Partners						
Condomless vaginal sex in the last 12 months	60	77.9	77	73	65.8	111
Condomless anal sex in the last 12 months	11	78.6	14	19	90.5	21
Gave money, drugs, etc. in exchange for sex	16	20.0	80	0	0.0	0
Received money, drugs, etc. in exchange for sex	1	33.3	3	26	22.8	114
Last Sex Partner						
Condomless vaginal sex	121	84.0	144	228	89.8	254
Condomless anal sex	4	100.0	4	5	62.5	8
Knew partner's HIV status	79	53.4	148	116	44.8	259
HIV Positive	0	0.0	79	0	0.0	116

Main partners are described in the interview as someone you feel committed to above anyone else.
Casual partners are described as someone you do not feel committed to or do not know very well.
Note: Categories may not add up to the total due to missing data for individual variable. Percentages do not reflect missing data.

Substance Use Behaviors

Almost one-tenth (8.8%) of participants reported ever injecting drugs, and over half of those (58.3%) were 21-30 years old when they first started injecting. Over half (58.7%) used non-injection non-prescription drugs in the prior 12 months with marijuana being reported by a vast majority (87.4%) of those. Over half of participants reported binge drinking at least once in the previous 30 days (55.6%).

Table 5.3. Prevalence of HIV Surveillance Substance Use Behaviors of Participants in the HET4 Cycle by Gender, National HIV Behavioral Surveillance Study - Denver, 2016

	Males			Females		
Injection Drug Use	**N**	**%**	**Total**	**N**	**%**	**Total**
Ever injected drugs	15	10.1	148	21	8.1	259
Age when first injected						
≤20	3	20.0	15	6	28.6	21
21-30	11	73.3	15	10	47.6	21
>30	1	6.7	15	5	23.8	21
Recent Injection						
Injected drugs in the last 12 months	0	0.0	15	0	0.0	21
Non-Injection Drug Use						

Non-prescription drug use in the last 12 months	100	67.6	148	139	53.7	259
Marijuana	84	84.0	100	125	89.9	139
Crystal meth	10	10.0	100	19	13.7	139
Crack cocaine	22	22.0	100	24	17.3	139
Powdered cocaine (smoked or snorted)	39	39.0	100	44	31.7	139
Downers (Valium, Ativan, Xanax)	10	10.0	100	15	10.8	139
Painkillers (OxyContin, Vicodin, Percocet)	26	26.0	100	31	22.3	139
X or Ecstasy	10	10.0	100	12	8.6	139
Poppers (amyl nitrate)	0	0.0	0	0	0.0	0
Heroin (smoked or snorted)	5	5.0	100	1	0.7	139
Meth in combination with Viagra, Levitra or Cialis	2	20.0	10	0	0.0	0
Alcohol Use						
Binge drinking (5 or more (males) OR 4 or more (females) in one sitting) in the last 30 days						
Never	56	47.1	119	82	42.7	192
At least once a day	41	34.5	119	81	42.2	192
At least once a week	9	7.6	119	14	7.3	192
At least once a month	7	5.9	119	5	2.6	192
Less than once a month	6	5.0	119	10	5.2	192
Binge drinking (largest number of drinks within about 2 hours) in the last 30 days						
0	0	0.0	119	0	0.0	191
1-2	35	29.4	119	80	41.9	191
3-5	38	31.9	119	72	37.7	191
6-10	30	25.2	119	31	16.2	191
11-20	13	10.9	119	8	4.2	191
21-30	1	0.8	119	0	0.0	191
>30	2	1.7	119	0	0.0	191
Drug Treatment						
Participated in drug treatment program in the last 12 months	14	9.5	148	16	6.2	259
Tried to get into a drug treatment program in the last 12 months but were unable	8	5.4	148	9	3.5	259

Note: Categories may not add up to the total due to missing data for individual variable. Percentages do not reflect missing data.

STI/HIV Testing & Prevention Behaviors

Over four-fifths (84.8%) of participants reported visiting a health care professional in the prior 12 months, and 35.7% of those participants were offered an HIV test at the visit. One-third (32.7%) reported being tested for an STI (excluding HIV and hepatitis) in the prior 12 months. A majority (72%)

reported having been tested for HIV at least once in their life. Almost half (46.4%) had been tested for HIV in the prior two years and over half (60.8%) of those participants were tested for HIV in the prior 12 months. One quarter (24.6%) received free condoms in the prior 12 months. Less than 5% (4.2%) of participants had heard of PrEP prior to the study and none had taken PrEP in the previous 12 months.

Table 5.4. Prevalence of HIV Surveillance STI/HIV Testing & Prevention Behaviors of Participants in the HET4 Cycle by Gender, National HIV Behavioral Surveillance Study - Denver, 2016

	Males			Females		
STI Testing Behavior	**N**	**%**	**Total**	**N**	**%**	**Total**
Tested for STI in the last 12 months	25	16.9	148	108	41.7	259
Chlamydia	2	1.4	148	14	5.4	259
Gonorrhea	4	2.7	148	5	1.9	259
Syphilis	0	0.0	148	1	0.4	259
Hepatitis						
Ever been tested for hepatitis C	90	61.2	147	136	53.5	254
Ever told had hepatitis C by health care provider	13	14.4	90	18	13.2	136
Other STIs						
Ever told had genital herpes by health care provider	3	2.0	148	10	3.9	259
Ever told had genital warts by health care provider	3	2.0	148	7	2.7	259
HIV Testing Behavior						
Visited a health care professional in the last 12 months	104	70.3	148	241	93.1	259
HIV test offered at health care visit	28	26.9	104	95	39.4	241
Ever tested for HIV	98	66.2	148	195	75.3	259
Tested for HIV in the last 12 months	34	34.7	98	81	42.0	193
Tested for HIV while in jail or prison in the last 12 months	10	29.4	34	9	27.3	33
Number of times tested in the last two years						
0	38	38.8	98	66	33.8	195
1-5	56	57.1	98	127	65.1	195
6-10	3	3.1	98	2	1.0	195
>10	1	1.0	98	0	0.0	195
Result of most recent HIV test						
Negative	89	90.8	98	182	93.8	194
Positive	0	0.0	98	0	0.0	194
Never obtained results	9	9.2	98	12	6.2	194
Indeterminate	0	0.0	98	0	0.0	194
Reason not tested for HIV in the last 12 months						

Think at a low risk for acquisition	34	29.8	114	40	23.8	168
Afraid of result	5	4.4	114	14	8.3	168
Don't have time	4	3.5	114	5	3.0	168
Some other reason	4	3.5	114	10	6.0	168
No particular reason	67	58.8	114	99	58.9	168
HIV Positive Individuals	0	0.0	0	0	0.0	0
HIV Prevention						
Received free condoms in the last 12 months	27	18.2	148	73	28.2	259
Received free condoms from which place(s)						
HIV/AIDS-focused community-based organization	0	0.0	27	5	6.8	73
Needle or syringe exchange programs	0	0.0	27	1	1.4	73
IDU outreach program	0	0.0	27	1	1.4	73
LGBTQ organization or community health center	0	0.0	27	5	6.8	73
Health center or clinic	17	63.0	27	51	69.9	73
Bar, club, bookstore, or other business	3	11.1	27	1	1.4	73
Drug or alcohol treatment program	1	3.7	27	5	6.8	73
Other community organization	2	7.4	27	15	20.5	73
Some other place	7	25.9	27	5	6.8	73
Ever heard of PrEP	6	4.1	148	11	4.2	259
Taken PrEP in the last 12 months	0	0.0	6	0	0.0	11
Perceived risk of acquiring HIV in the next 12 months						
Low	135	91.2	148	229	88.4	259
Medium	10	6.8	148	22	8.5	259
High	3	2.0	148	8	3.1	259
Received individual- or group-level HIV counseling in the last 12 months	6	4.1	145	17	6.9	247

Note: Categories may not add up to the total due to missing data for individual variable. Percentages do not reflect missing data.

Glossary

AIDS (Acquired Immune Deficiency Syndrome) - A person living with HIV receives a diagnosis of AIDS after the development of one the CDC-defined AIDS indicator illnesses (see opportunistic infection) or on the basis of the results of specific blood tests (i.e., a CD4+ count of less than or equal to 200 cells/mL or a CD4+ percentage of less than 14, if the percentage is all that is available). A positive HIV test result does not mean that a person has AIDS.

Antiretroviral Therapy (ART) - Aggressive anti-HIV treatments that usually include a combination of protease and reverse transcriptase inhibitors, which interrupt the HIV life cycle and whose purpose is to reduce a person's viral load to undetectable levels.

Care Continuum Categories:

- Diagnosed - All people diagnosed with HIV through December31, 2015, living through December31, 2016, having evidence of care by way of laboratory testing in the last 10 years (2007-2016) and having a last known residence in Colorado.
- Engaged - Laboratory testing in 2016.
- Retained - Laboratory testing at least 90 days apart in 2016 or was virally suppressed at the most recent viral load in 2016.
- Suppressed - Viral load of undetectable or below 200 particles per milliliter.

CDC - The Centers for Disease Control and Prevention, in the U.S. Department of Health and Human Services, is the lead federal agency for protecting the health and safety of the people of the United States. CDC provides most of the funding for HIV Prevention and HIV Surveillance activities in Colorado.

Confidence Interval - a range within which there is a 95% chance of containing the true rate estimate.

Cumulative - Refers to the total number of HIV cases reported in Colorado since surveillance for this condition began in 1982.

Exchange partner - A sexual partner who receives money or drugs for sex.

Exposure categories - To monitor how HIV is being transmitted, HIV cases are classified as one of several exposure (transmission) categories developed by CDC.

- MSM - refers to Male-to-male sexual contact that is homosexual or bisexual contact.
- IDU (Injection drug-use) - refers to the use of forms of drugs that require injection.
- High-risk heterosexual (HET) contact - refers to heterosexual contact with a partner who is at increased risk for HIV acquisition (i.e., a MSM, IDU, or a person with documented HIV).
- Hemophilia/transfusion/transplant - refers to cases resulting from a confirmed transfusion of blood or blood products before 1985).
- Perinatal - refers to cases in children resulting from transmission from an HIV-positive mother.
- Unknown, or no identified risk cases - those people who have no reported history of exposure at the time of the report date. This category includes people for whom the surveillance protocols to document risk behavior information have not yet been completed,

people who have declined to disclose their risk behavior or who deny any risk behavior, and people who do not know the HIV status or risk behaviors of their sex partners.

Front Range - Refers to the mountain range of the southern Rocky Mountains of North America stretching along and around Interstate 25 from Pueblo County, CO to Cheyenne, WY. This includes the following seven Colorado MSAs that include 17 Colorado counties:

- Pueblo Metropolitan Statistical Area
  - Pueblo County
- Canon City Micropolitan Statistical Area
  - Fremont County
- Colorado Springs Metropolitan Statistical Area
  - El Paso County
  - Teller County
- Denver-Aurora-Lakewood Metropolitan Statistical Area
  - Adams County
  - Arapahoe County
  - Broomfield County
  - Clear Creek County
  - Denver County
  - Douglas County
  - Elbert County
  - Gilpin County
  - Jefferson County
  - Park County
- Boulder Metropolitan Statistical Area
  - Boulder County
- Greely Metropolitan Statistical Area
  - Weld County
- Fort Collins Metropolitan Statistical Area
  - Larimer County

Frontier County - Refers to a subset of rural counties that have six or fewer people per square mile.

Genotype - The genetic constitution of an individual or group.

HIV (Human Immunodeficiency Virus) - The virus that causes AIDS. A person who has contracted the virus is said to be a person living with HIV.

Incidence - Refers to the number of new cases of an infection that occur in a population during a specified time, usually a year. Even though HIV data are often presented as "new cases of HIV," these data do not represent new infections (true HIV incidence) because a person may not be tested for HIV during the same period that he or she acquired HIV. Data instead is presented as "newly diagnosed HIV."

Late Stage Diagnosis - Refers to those diagnoses where the AIDS diagnosis is within 365 days of the initial HIV diagnosis.

Perinatal - The word means “around birth” and is used to describe events that occur during labor and birth and immediately after delivery. When used to describe HIV transmission, however, this word applies more broadly and describes any time that a mother may transmit HIV to her child-while she is pregnant, during birth, or through breast-feeding.

Prevalence - Refers to the total number of people with a specific disease or condition at a given time. HIV prevalence data are generally presented as “people living with HIV.” HIV prevalence data provided by HIV surveillance programs underestimate the true HIV prevalence because people who have not yet been tested for HIV or reported to the health department are not included.

Rate - Type of ratio that includes a specification of time and a comparative value. In public health, rates are typically expressed in the number of events per 100,000 people but can be expressed using differing comparative values such as per 1,000 or 10,000, etc. In epidemiology, rates express the probability of, or risk for, disease or other events in a defined population during a specified period, often one year.

Rural County - Refers to a county that does not contain a city of 50,000 people or more.

Transcriptase - an enzyme that catalyzes the formation of RNA from a DNA template during transcription. AKA RNA polymerase.

Urban County - Refers to a county that does contain a city of 50,000 or more.

Virally Suppressed - a viral load of undetectable or below 200 particles per milliliter.