



UTAH DEPARTMENT OF
HEALTH

Bureau of Epidemiology

Prevention, Treatment, and Care Program

**2018: Annual HIV
Surveillance Report**



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The UDOH acknowledges that longstanding social, economic, and environmental inequities have resulted in adverse health outcomes for many populations. The effects they have on communities vary and often 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 Utahns.

Data Notes

Data from multiple data systems was utilized to compile this report, including: HIV surveillance data from the enhanced HIV/AIDS Reporting System (eHARS) and UT-NEDSS (EpiTrax); and population data from IBIS-PH (Utah's Indicator Based Information System for Public Health).

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Executive Summary

This report describes new diagnoses of human immunodeficiency virus (HIV) in 2018 among persons whose primary residence was in Utah at the time of diagnosis. Data analysis assessed the demographics of new diagnoses (e.g., age, race/ethnicity, etc.) as well as their geographic distribution. Trends for the past 10 years were included for comparison. Since there is often a delay in reporting deaths and address changes, analyses involving persons previously known to be HIV-positive only include data through the end of 2017. Trends among persons living with HIV in Utah were only included for the past five years because data prior to 2010 is not available. A few special topics related to HIV, such as transmission risk and stage 3 (AIDS) diagnoses, were also analyzed. Among the findings, the following are of particular note:

New Diagnoses of HIV

- In 2018, Utah had 122 newly diagnosed HIV cases and 77.9% of them were linked to HIV medical care within 30 days.
- The rate of new diagnoses over the past five years has been remarkably flat with an increase in 2016 which did not continue into 2017–2018. The rate for each of the past two years has been 3.8 cases per 100,000 residents.
- After a brief rise, the rate in adolescents and young adults (ages 13 to 24 years) has begun to trend back down toward the 10-year average.
- The vast majority of new HIV diagnoses were identified in persons living along the Wasatch Front, with the great majority of those living in Salt Lake County.
- Male-to-male sexual contact is the single largest transmission risk for new HIV infection in Utah.
- Persons who are non-Hispanic Asian and Hispanic are more likely than other racial/ethnic groups to have a stage 3 infection at the time of HIV diagnosis. This indicates the need for targeted testing efforts to reach these populations.
- Overall, the rate of new HIV diagnoses with stage 3 infection has not decreased in the last five years. This indicates an ongoing need to enhance testing efforts in order to identify HIV infection earlier.

Persons Living with Diagnosed HIV (PLWDH)

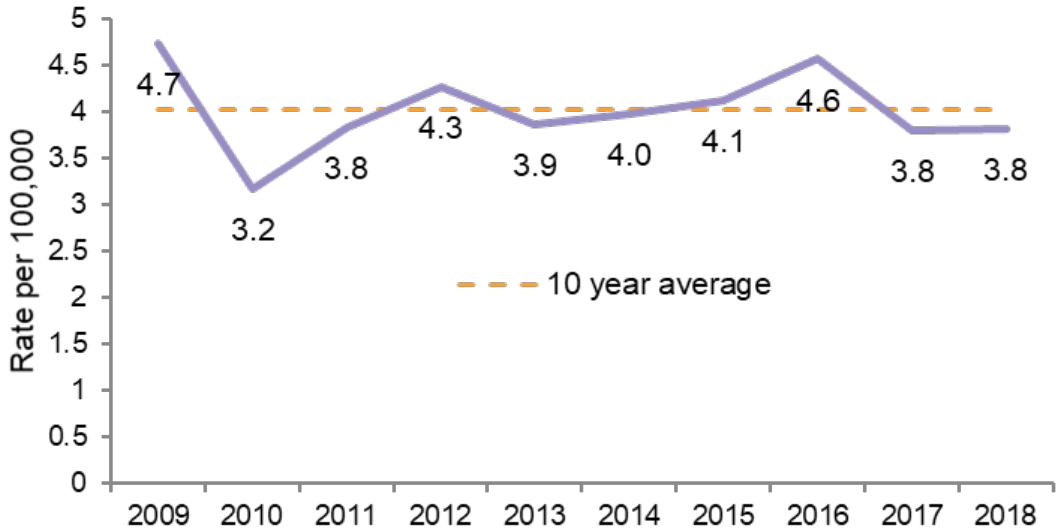
- In 2017, the largest age group for PLWDH in Utah was 45–54 years old.
- Nearly half of the female PLWDH in Utah reported high-risk heterosexual contact as the most likely route of HIV transmission.
- Among PLWDH, 78% received HIV medical care and 69% achieved viral suppression in 2017.
- About 37% of PLWDH were enrolled in the Ryan White Part B HIV/AIDS program in 2017.

New HIV Diagnoses in Utah

Background

Infection with human immunodeficiency virus (HIV) is a serious health event which has affected Utah residents since the mid-1980s. Undiagnosed, this infection leads to a fatal health condition known as acquired immunodeficiency syndrome (AIDS), in which the body loses the ability to defend itself from infectious organisms such as bacteria, parasites, fungi, and other viruses. Public health surveillance of the demographic and behavioral factors accompanying HIV infection allows prevention and treatment programs to direct resources to the individuals and communities most likely to be affected. The UDOH's HIV prevention strategy includes collaborating with local health departments, medical care providers, community-based organizations, and laboratories to increase routine HIV testing in Utah's population, as well as to quickly identify newly diagnosed HIV infections through disease reporting activities. In 2018, 122 newly diagnosed HIV infections were identified for a rate of 3.8 new diagnoses per 100,000 residents. This represents an improvement from 2016, when the rate was 4.6. Although rates have declined significantly since the height of the epidemic, they have been relatively stable over the past 10 years.

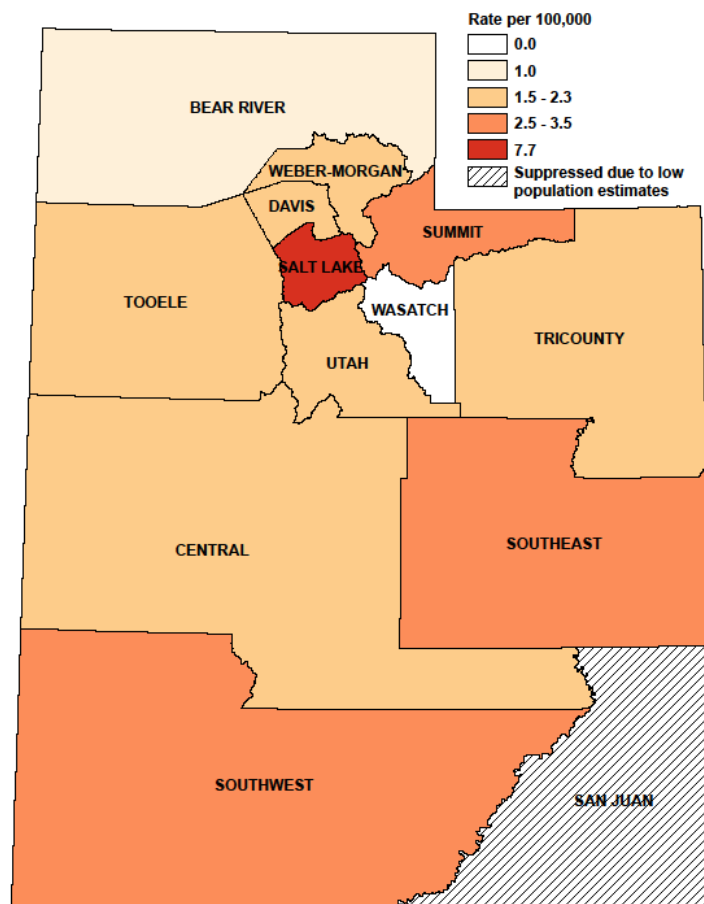
Fig.1 Stable Rates of New HIV Diagnosis Over the Last Ten Years in Utah



Geographic Distribution

Most newly diagnosed HIV cases are reported in Utah's largest population centers. This includes the four counties making up the Wasatch Front (Weber, Davis, Salt Lake, and Utah) as well as Washington County, where the city of St. George is located. Salt Lake County is, by far, the most densely populated county in Utah and is also where we see the largest number of HIV infections each year. In 2018, 87% of newly diagnosed HIV infections were reported along the Wasatch Front; 63% were reported in Salt Lake County alone. Outside of Utah's largest population centers, most Utah counties and local health districts experience low numbers of new diagnoses without consistent trends. Low numbers result in large differences in rates from year-to-year. Because of these low numbers and fluctuations in rates, year-to-year comparisons between counties and many other defined populations are difficult to make. To address this concern, some of the data presented in this report (such as in Figure 2) combine multiple years of data.

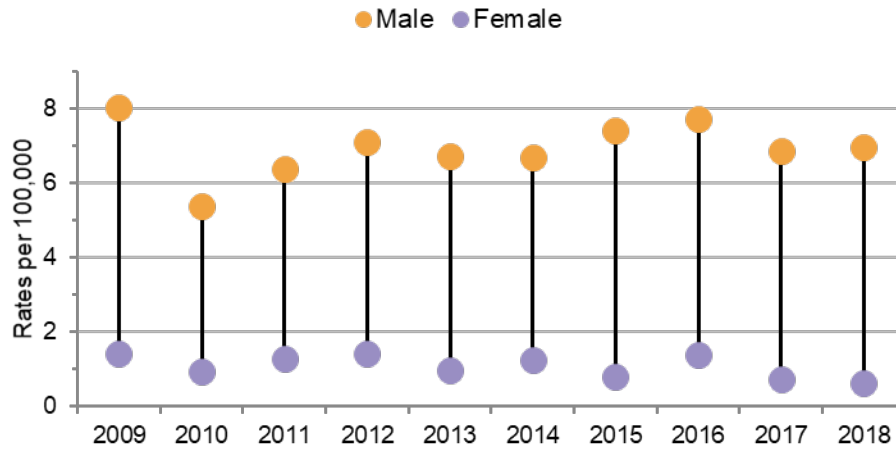
Fig.2 Salt Lake County Sees the Most Cases but HIV is Statewide, 2014-2018



Birth Sex & Age at Diagnosis

HIV disproportionately affects males in both Utah and the United States. The rate of reported diagnosis among males was highest at the beginning of the 10-year reporting period. Over the past five years, the rate has remained stable, with annual fluctuations no greater than 1.1 cases per 100,000 male Utah residents. The rate among females is even more stable, with annual differences of less than 1.0 case per 100,000 females over the 10-year period.

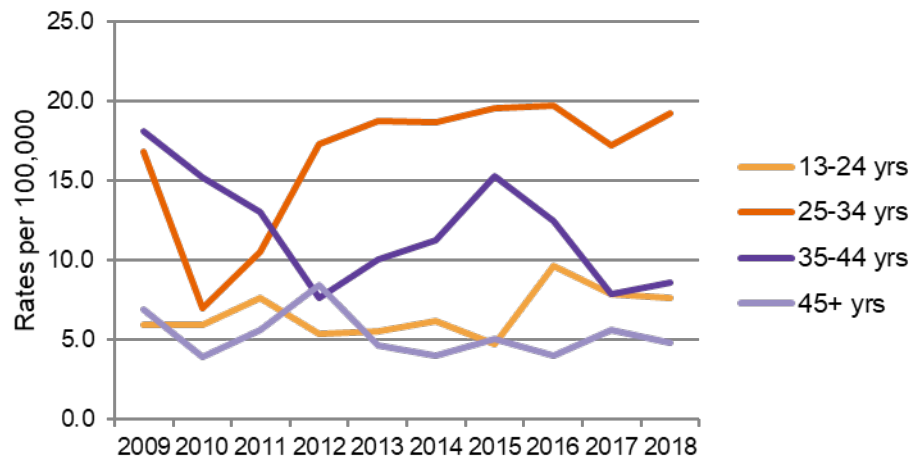
Fig. 3 Males are Consistently More Affected by HIV than Females in Utah



Nationwide, HIV affects people of all ages. HIV can be passed from mother-to-child in the womb or at childbirth when the mother is not regularly taking antiretroviral medication. This situation does not occur often in Utah. In fact, Utah has not had a reported case of perinatal HIV transmission since before 2010. There are also low numbers of HIV transmission among persons 65 years or older. Because the number of cases in the younger than 13-year age group is so small, the annual rates are statistically unstable and are not displayed in Figure 4. Further, the difference in rates among men age 45 and older is insignificant, so those categories have been combined. Utah’s numbers of new HIV diagnoses among women, when broken down by age group, are too small to produce rates which are usable for comparison or trend analysis. For this reason, no figure representing female rates by age group is presented here. For case counts, please see Table 3 at the end of this report.

Our last report noted an increase in diagnoses among the 13–24 year and 55–64 year age groups. These increases do not appear to be continuing, and the 25–34 year age group once again outweighs these groups in terms of new HIV diagnoses.

Fig. 4 Most New HIV Diagnoses are Among Younger Men in Utah



Transmission Category

When a new diagnosis of HIV is identified, a disease investigation specialist (DIS) at the local health department investigates. During this investigation, the DIS collects information on demographics and transmission risk information. The “transmission category” presented in this report is the most likely way that person acquired HIV. The Centers for Disease Control and Prevention’s (CDC) defined transmission categories include male-to-male sexual contact (MSM), injection drug use (IDU), male-to-male sexual contact and injection drug use (MSM/IDU), and heterosexual contact (with a person known to have or to be at high risk for, HIV infection).

Determining the HIV risk of heterosexual partners during an investigation can be difficult. This frequently results in high numbers of cases (especially among females) being assigned a transmission risk which translates to “Unknown.” To better illustrate information on transmission risk, this report includes an additional transmission category: heterosexual contact of unknown risk (previously referred to as “low-risk heterosexual contact”). This transmission category is defined by Utah as heterosexual contact with a person at low or unknown risk for HIV infection. Creating this new category reduced the number of new diagnoses with an unknown transmission risk; however, 20% (n=2) of female cases remain “unknown.” This highlights the continued need for the DIS to thoroughly interview newly identified HIV cases for risk information.

When compared with other sexual activities, sexual contact involving the anal cavity is much more likely to result in HIV infection due to HIV being a blood-borne virus and the specifics of human biology. Accordingly, the single largest risk factor for HIV infection in Utah and in the United States is MSM. Persons reporting MSM accounted for 73% (n=82) of new HIV infections among males in Utah in 2018. Persons who reported both MSM and IDU accounted for roughly 11% (n=12) of new male HIV cases in Utah in 2018. Males and females who reported IDU as their only transmission risk only accounted for about 4% (n=5) of new diagnoses. In Figure 6, the number of cases in each category is labeled to emphasize that larger percentages in each category are the result of small case numbers and the absence of MSM and MSM/IDU categories. It does **not** indicate that Utah women with HIV are more likely than men to engage in injection drug use.

Fig. 5 Male-to-Male Sexual Contact is the Leading Route of HIV Transmission Among Utah Males

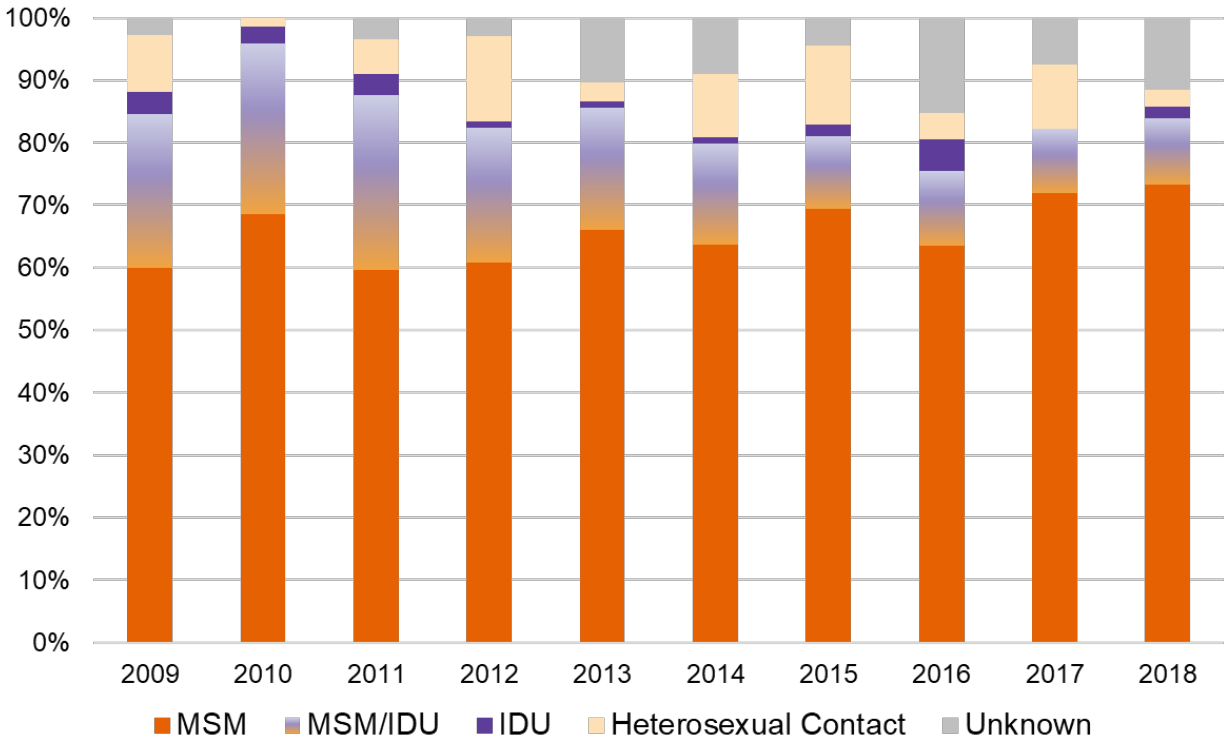
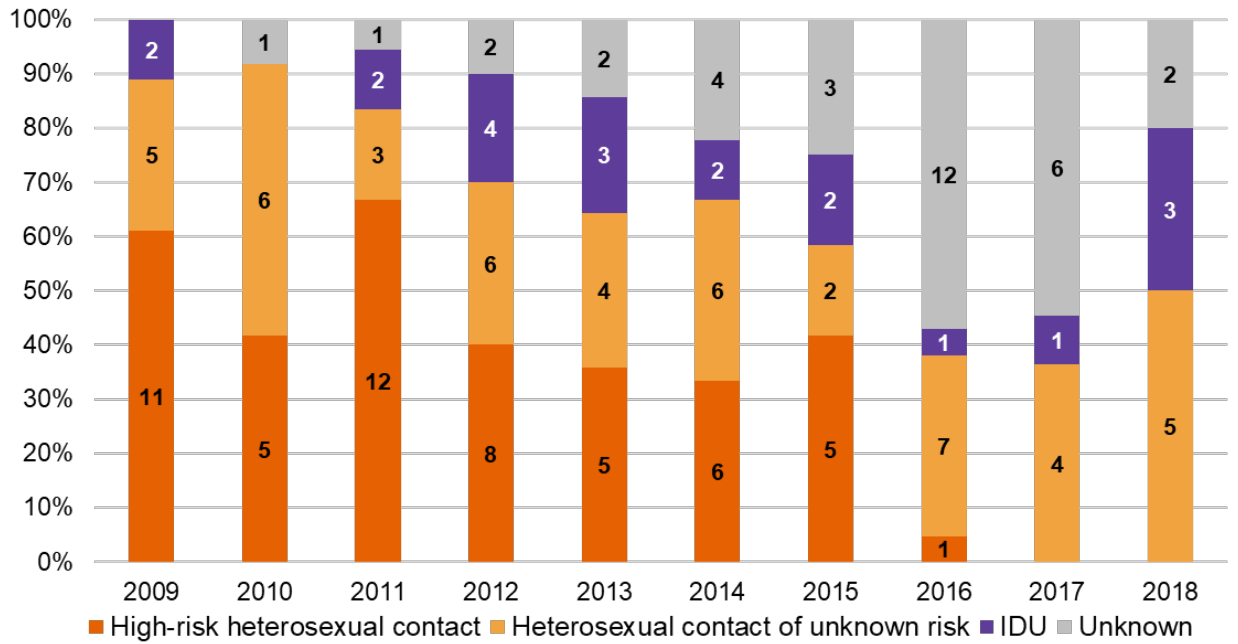


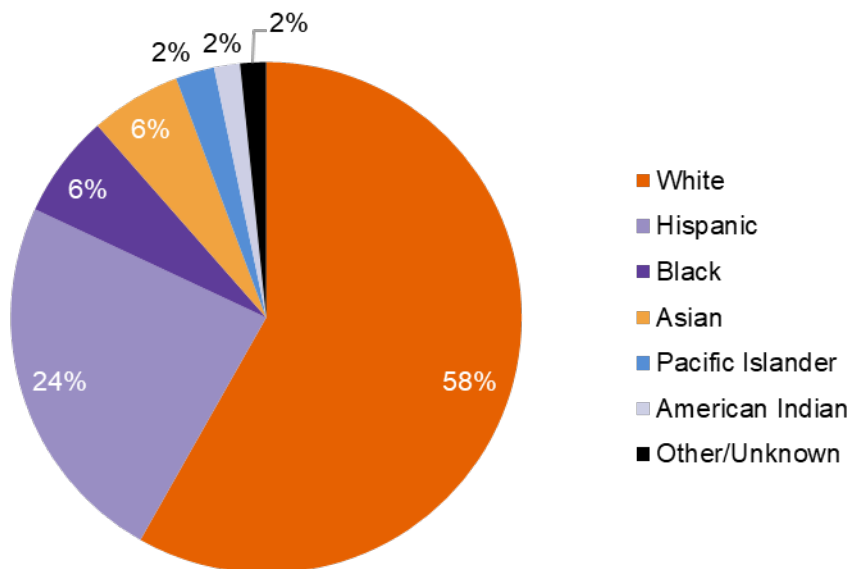
Fig. 6 Heterosexual Contact is the Leading Route of HIV Transmission Among Females in Utah



Race & Ethnicity

For the purposes of HIV surveillance, racial/ethnic categories are divided into major racial categories and one ethnic category. Accordingly, references to persons who are Hispanic are shown as “Hispanic” regardless of whether they also have other racial identities. Other racial categories refer only to persons who are non-Hispanic. Most of Utah’s population is comprised of persons who are White. Accordingly, the largest percentage of new HIV diagnoses in Utah every year is among residents who are White. In 2018, nearly 58% (n=71) of new HIV diagnoses in Utah were among residents who are White. However, among females, a disproportionately large percentage of new infections was among women who are Black. As there were only 10 new diagnoses among females, this percentage is not statistically stable; however, it is important to note this pattern repeats every year. Some of this may be due to persons immigrating to Utah from countries where heterosexual transmission of HIV is more common. Among males and females, the second largest group of new HIV diagnoses is comprised of persons who are Hispanic. Since the Hispanic population is the second largest in Utah, this is not surprising.

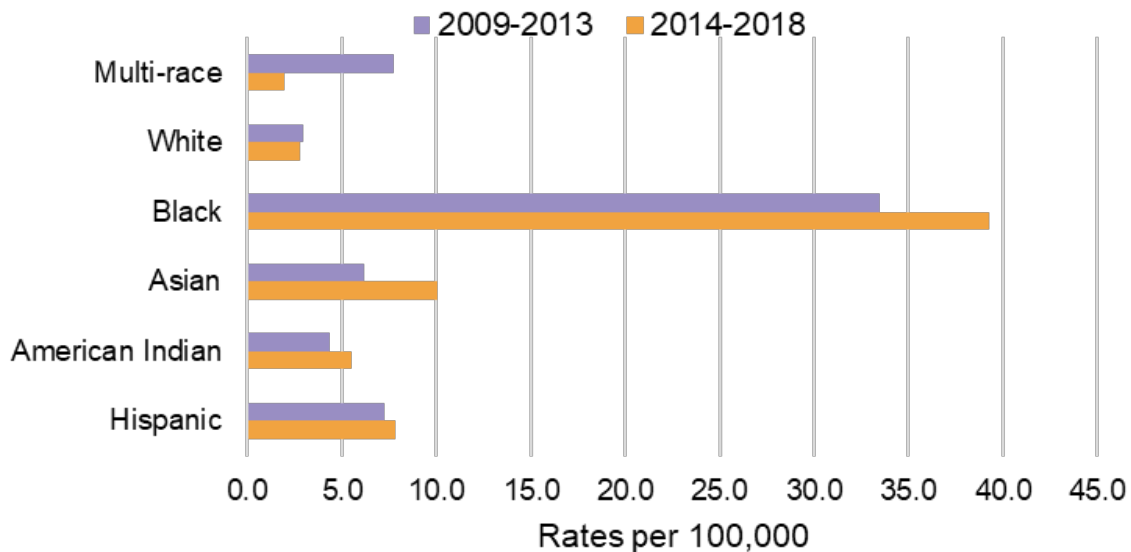
Fig. 7 Most New HIV Diagnoses are Among White and Hispanic Populations in Utah, 2018



When the number of new HIV diagnoses in each racial/ethnic category is compared with the overall size of Utah’s racial/ethnic populations, it is evident that racial/ethnic minorities are disproportionately burdened by HIV. In Figure 9, the five-year cumulative rates for the first half of the 10-year period are compared with the cumulative rates for the last half for each race/ethnicity. The number of HIV cases among persons who are Native Hawaiian and Other Pacific Islander was so low that even the five-year cumulative rates are too unstable to be used in comparison analyses. Therefore, this

racial group is omitted from Figure 8. Residents who are Black are more heavily affected by HIV in Utah each year. It is also clear that persons who are Asian and Hispanic shoulder a disproportionate burden of HIV diagnosis in Utah. The rate among most racial/ethnic groups appears to be neither increasing nor decreasing to a statistically significant degree. Populations who are Black and Asian, however, do appear to have experienced some increase over the last five years.

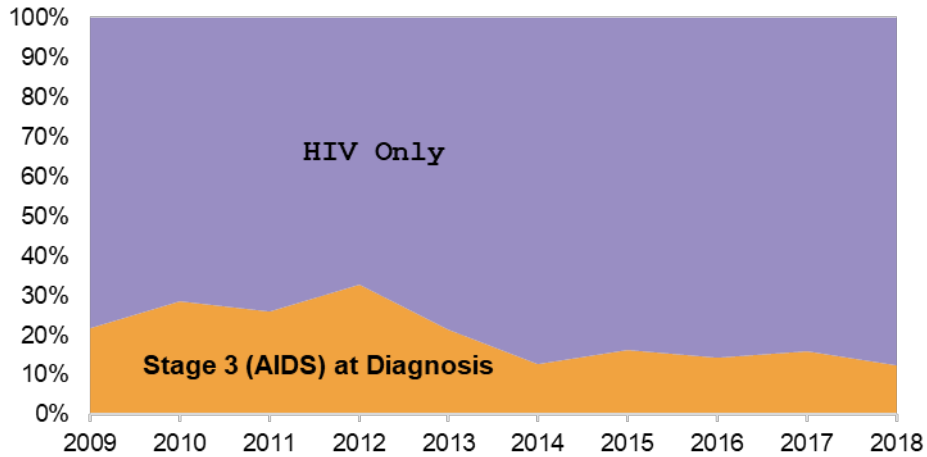
Fig. 8 Many Utah Populations Had Minor Rate Increases in HIV Diagnosis, 2009-2013 vs 2014-2018



Stage 3 (AIDS) at Diagnosis

Many people, who at one time were unwilling to get tested for HIV until they had symptoms, are now getting tested earlier due to the development of highly effective antiretroviral medications. This, coupled with advances in HIV testing technology and the widespread availability of low or no cost tests in many locations, has contributed to declining percentages of new HIV diagnoses who have AIDS (or stage 3 infection) at the time of diagnosis. People who meet the criteria for AIDS may improve with treatment and no longer meet the AIDS criteria. In addition, people living with diagnosed HIV may be inconsistent with their treatment and can meet (or not meet) the criteria for AIDS depending on their adherence to treatment. The term “stage 3 infection” is now used to refer to persons who have ever met the criteria for AIDS regardless of their current immune status. A stage 3 infection at the time of HIV diagnosis is an indication of late testing. Ideally, individuals who become infected with HIV should be tested and notified of their infection shortly after being exposed to the virus. People who progress to stage 3 infection prior to HIV diagnosis have nearly always been infected for many years without being tested for HIV. People who are unaware that they have HIV are much more likely to continue to transmit HIV and have poor health outcomes.

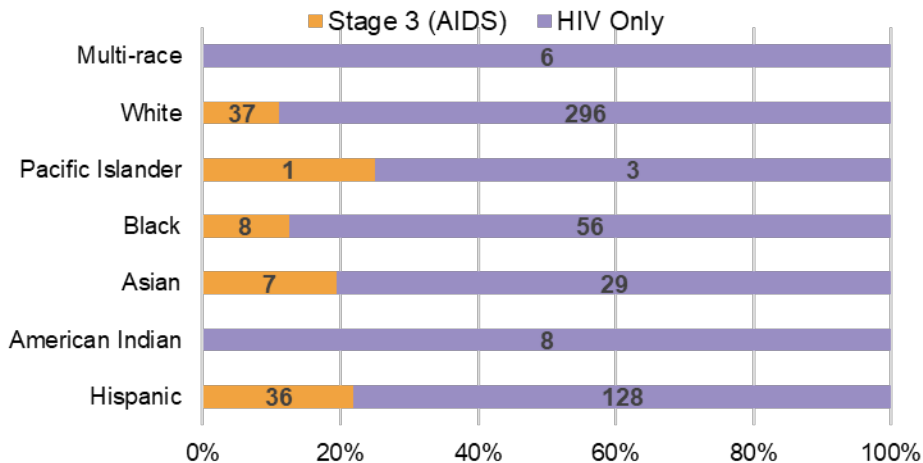
Fig. 9 No Decrease in Stage 3 (AIDS) Diagnoses in the Last Five Years



Utah has seen a decrease in the rate of new HIV diagnoses with stage 3 infection over the last ten years. What is less encouraging is that the rate has been stable for the past five years. This means recent efforts to increase early identification of HIV infection have not yet had a measurable effect on limiting new stage 3 diagnoses. As the number of undiagnosed persons infected with HIV drops, the cost to identify each undiagnosed person increases. This may be contributing to the difficulty in further decreasing the number of newly diagnosed HIV-positive residents whose infection has progressed to stage 3 prior to diagnosis.

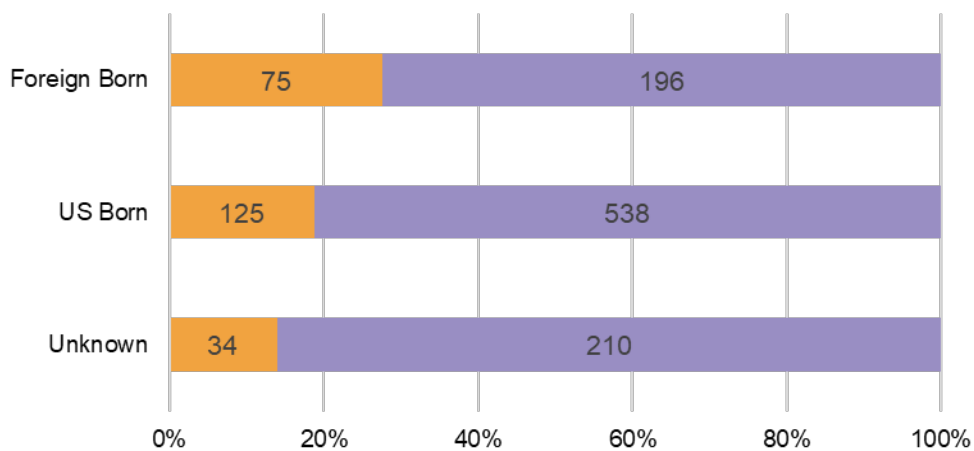
The small number of new HIV diagnoses among each race/ethnicity does not allow for a standard time trend to be displayed in this report. Instead, Figure 11 displays the sum total of new HIV diagnoses for the past five years as well as the percentage of those cases with stage 3 infection at time of diagnosis for each race/ethnicity.

Fig. 10 Ethnic Minorities in Utah are More Likely to Have Stage 3 (AIDS) Infection at Diagnosis, 2014-2018



Public health surveillance is designed to identify populations which may be experiencing difficulty receiving timely screening and quality health care. At the UDOH, the HIV surveillance team works in an integrated program with the refugee health and the tuberculosis surveillance and prevention teams. Partly due to this collaboration, this annual report typically assesses potential HIV-related health inequities related to country of birth by analyzing the difference in stage of infection at the time of diagnosis. Figure 11 displays the percentage of new HIV diagnoses with stage 3 infection stratified by country of birth for the past ten years. Foreign-born Utah residents are consistently more likely to have a stage 3 infection at the time of HIV diagnosis compared with U.S.-born residents. This may indicate that foreign-born residents have more difficulty accessing the health care system or that HIV testing and outreach services are not reaching this population as consistently. It may also indicate that foreign-born individuals tend to acquire HIV in their home country but are unable to be diagnosed before coming to the United States.

Fig. 11 Foreign-born Individuals in Utah are More Likely to Have Stage 3 (AIDS) Infection at Diagnosis, 2009-2018



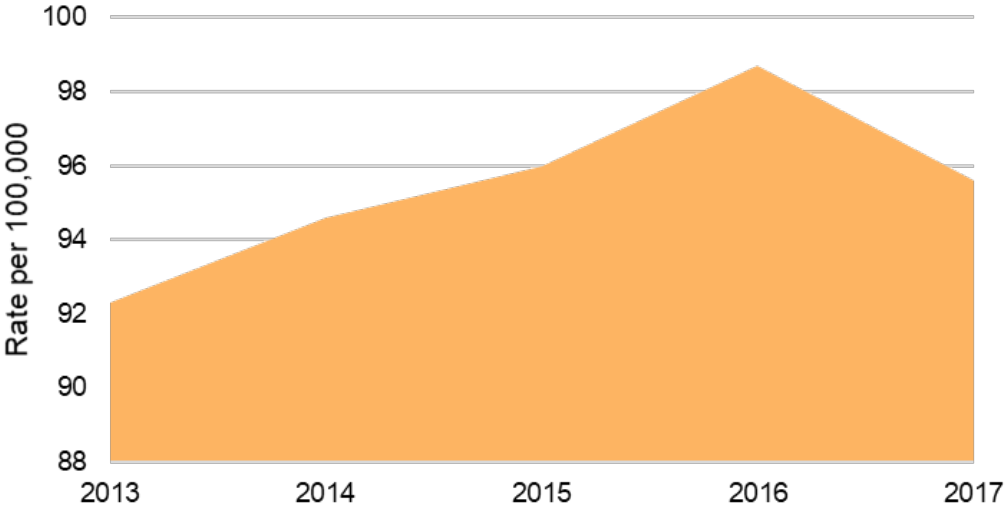
Persons Living with Diagnosed HIV

Background

The UDOH monitors the number of persons living with diagnosed HIV (PLWDH) in Utah and their care status. This enables public health to efficiently allocate resources and reduce barriers to care when identified. Statistics provided in this report are based on the CDC’s definition of the number of persons who were last reported to be living with diagnosed HIV in Utah at the end of 2017. HIV epidemiologists perform annual death ascertainment activities and search records of other states to refine this estimate, but there are still gaps in reporting which result in inflated estimates over time. Accordingly, the HIV Care Continuum section of this report utilizes a revised definition of PLWDH in which persons who have not had an updated Utah address or lab result reported for at least five years are presumed to have died or moved out of state.

Trends among PLWDH in Utah were only included for the past five years as data prior to 2010 is not available. In Utah, there were 2,965 individuals living with diagnosed HIV at the end of 2017. The rate of PLWDH has been increasing slowly for the last five years. In 2013, there were 92.3 people living with HIV per 100,000 Utah residents. By 2017, the rate increased to 95.6 per 100,000 Utah residents. This represents a 3.6% increase in the rate of people living with HIV from 2013 to 2017. This increase may be due to the increased life expectancy among people living with HIV and Utah’s rapid population growth in the last few years. Notably, the rate decreased 3.1% between 2016 and 2017. This is believed to be the result of efforts at the UDOH to improve and maintain data quality and consistency.

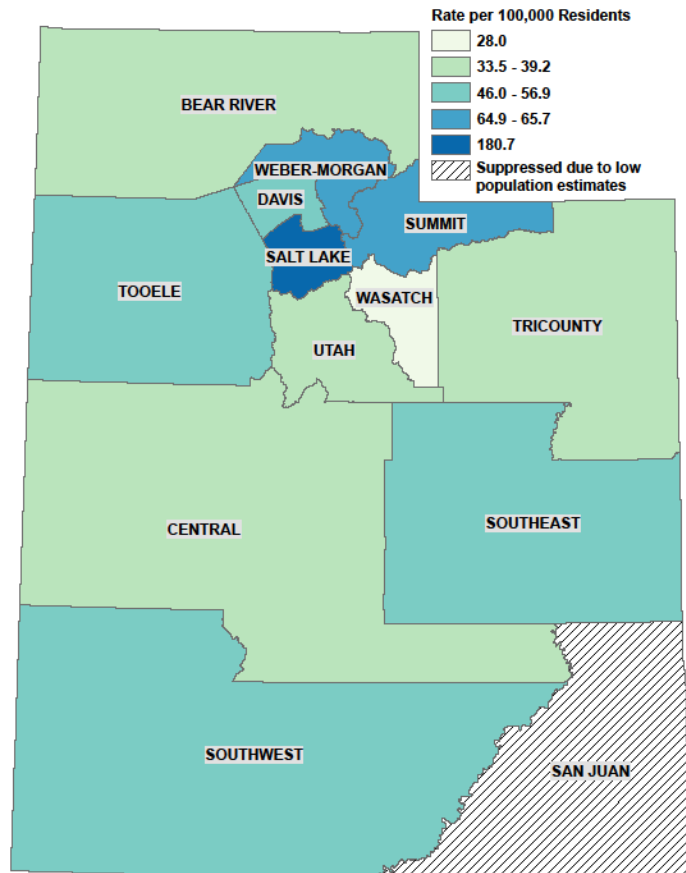
Fig. 12 The Rate of Persons Living with Diagnosed HIV in Utah Generally Increases Annually



Geographic Distribution

Salt Lake County has the highest rate of people living with diagnosed HIV in the state of Utah at 180.7 per 100,000 Utah residents. The Salt Lake County health district had a 3.9% increase in the rate of PLWDH from 2013 to 2017. Summit and Weber-Morgan local health districts have the second highest rates of PLWDH at 65.7 and 64.9 respectively. The rate of PLWDH in each local health district has increased or stayed roughly the same over the last five years, with the exception of Wasatch County (which has decreased 52.4%).

Fig. 13 Persons Living with Diagnosed HIV Reside in Every Part of the State of Utah, 2017



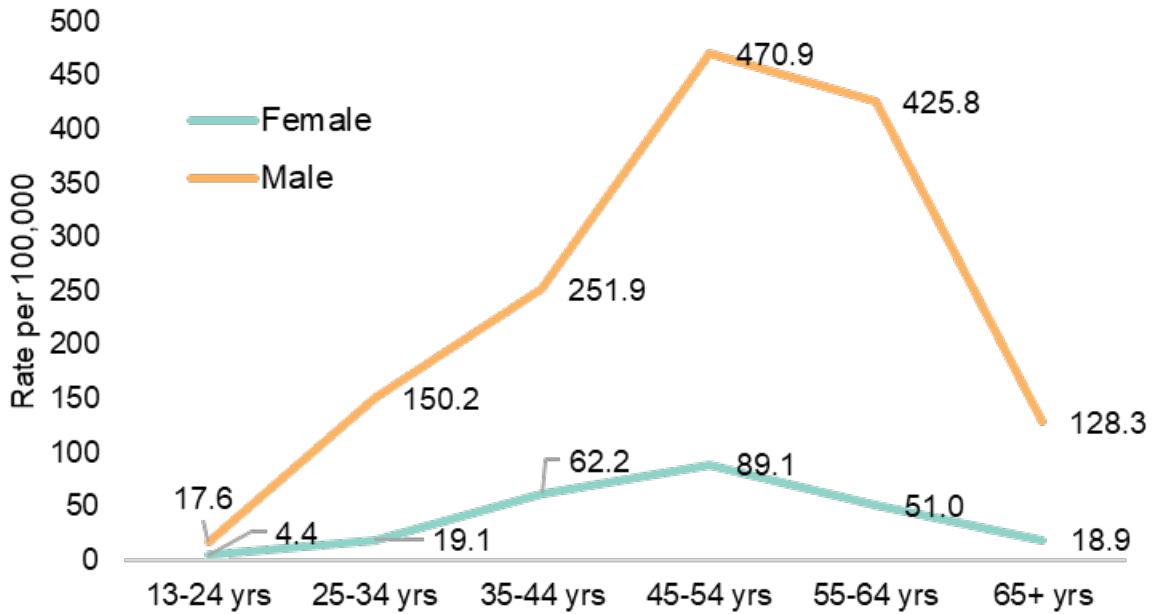
Birth Sex and Age Group

In both Utah and the U.S., the majority of the HIV-positive population is male. In 2017, the birth sex of 85% of PLWDH in Utah was male and 15% was female.

Among males, more than half of persons living with diagnosed HIV were older than age 45. The highest rates among both males and females were observed in the 45–54 year old age category at 470.9 and 89.1 per 100,000 population, respectively. The second highest rate of men living with HIV was persons 55–64 years of age at 425.8 per 100,000 male residents in Utah. Among females, the second highest rate was in the 35 to 44 year age range at 62.2 per 100,000 females. For both males and females, the rate of PLWDH was lowest among individuals who were younger than 24 years old.

This age distribution highlights the fact that persons living with diagnosed HIV are living longer, healthier lives due to effective medications.

Fig. 14 The HIV+ Population in Utah is Aging, 2017



Transmission Category

All reported HIV cases are assessed for risk behaviors to determine the most likely mode of HIV transmission. For a more complete explanation of the difference between the CDC's transmission categories and the UDOH's risk categories, please see the section on new diagnoses. Nearly half (48.7%) of the females living with diagnosed HIV in Utah reported having high-risk heterosexual contact. Approximately two out of ten (20.7%) females living with diagnosed HIV reported heterosexual activities where high risk could not be determined. These individuals reported having a sexual encounter with a man at low or unknown risk for HIV infection. These definitions of high-risk heterosexual contact and heterosexual contact of unknown risk do not take into account the number of partners. Approximately two out of ten (19.6%) females living with HIV reported participating in injection drug use.

Fig. 15 Most Women Living with HIV in Utah Acquired it Through Heterosexual Transmission, 2017

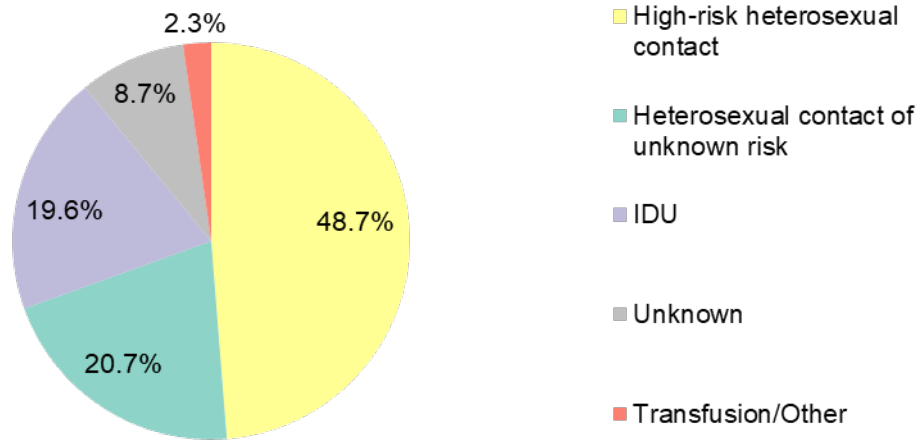
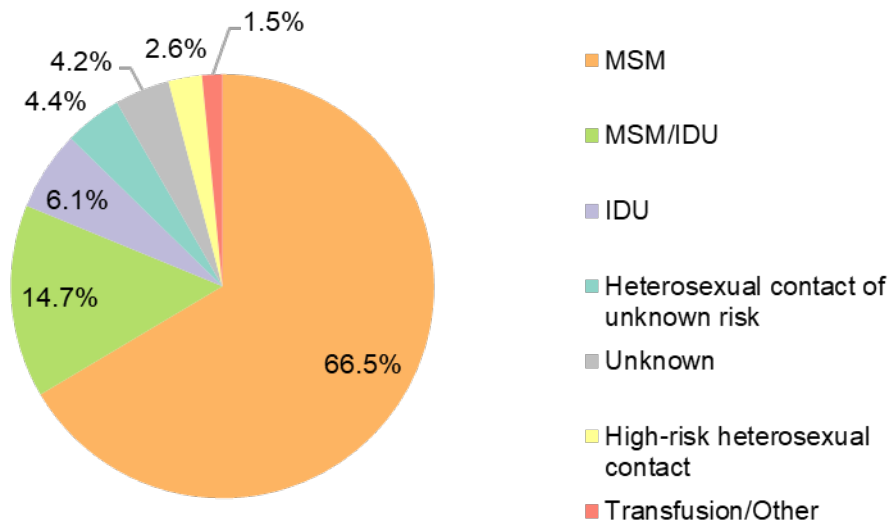


Fig. 16 MSM is the Most Common Transmission Risk Among Men Living with HIV in Utah, 2017



The majority of people living with diagnosed HIV in both Utah and the U.S. are males who have sex with other males. About 66% of men living with diagnosed HIV in Utah reported male-to-male sexual contact. The second highest transmission category among men is made up of individuals who are both MSM and report IDU (15%). About 6% of men living with HIV reported only IDU.

Race/Ethnicity

For a discussion of how race and ethnicity are grouped in this report, please see the Race & Ethnicity heading in the New HIV Diagnoses section. The majority of people living with diagnosed HIV in Utah are persons who are White. As of 2017, that population accounted for nearly seven out of ten (66.4%) males living with diagnosed HIV and nearly five out of ten (45.1%) females living with diagnosed HIV. For both males and females living with diagnosed HIV, about one-fifth were persons who are Hispanic. Among females in 2017, the second largest race/ethnicity category of PLWDH was comprised of persons who are Black. They accounted for more than one-fourth (27.3%) of women living with diagnosed HIV in Utah. In contrast, males who are Black and were living with diagnosed HIV in Utah only made up 6.7% in 2017.

Utah has very low proportions of persons living with diagnosed HIV who are Asian, Native Hawaiian/Other Pacific Islanders, American Indian/Alaskan Native, and individuals who reported multiple races. Among females, 4.1% reported Asian, 1.4% reported two or more races, 0.5% reported American Indian/Alaskan Native and 0.2% reported Native Hawaiian/Other Pacific Islander. Among males, 2.3% reported more than one race, 1.9% reported Asian, 1% reported American Indian/Alaskan Native, and 0.2% reported Native Hawaiian/Other Pacific Islander.

Fig. 17 Racial/Ethnic Minorities Comprise Over 50% of Women Living with HIV in Utah, 2017

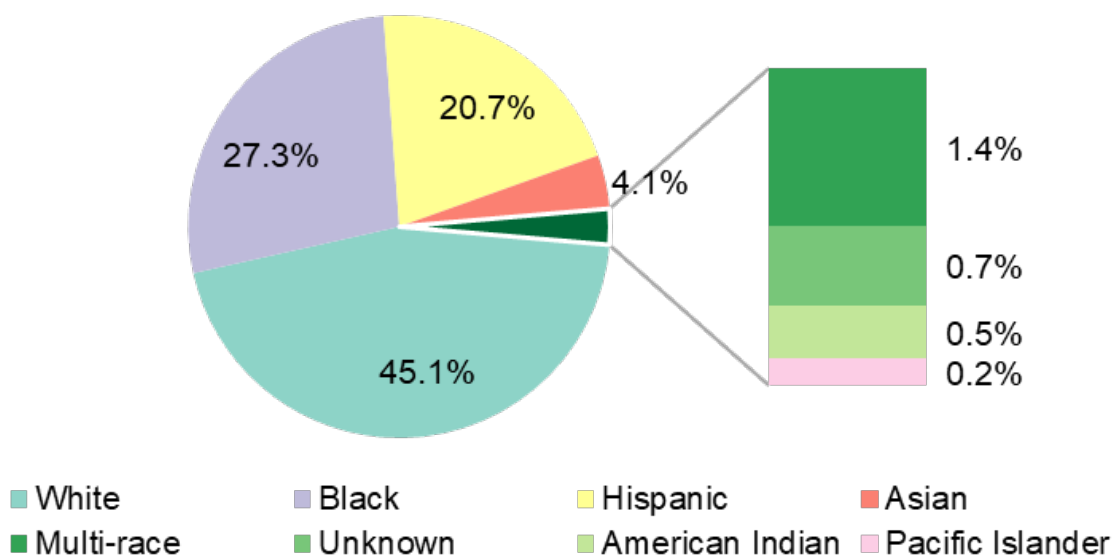
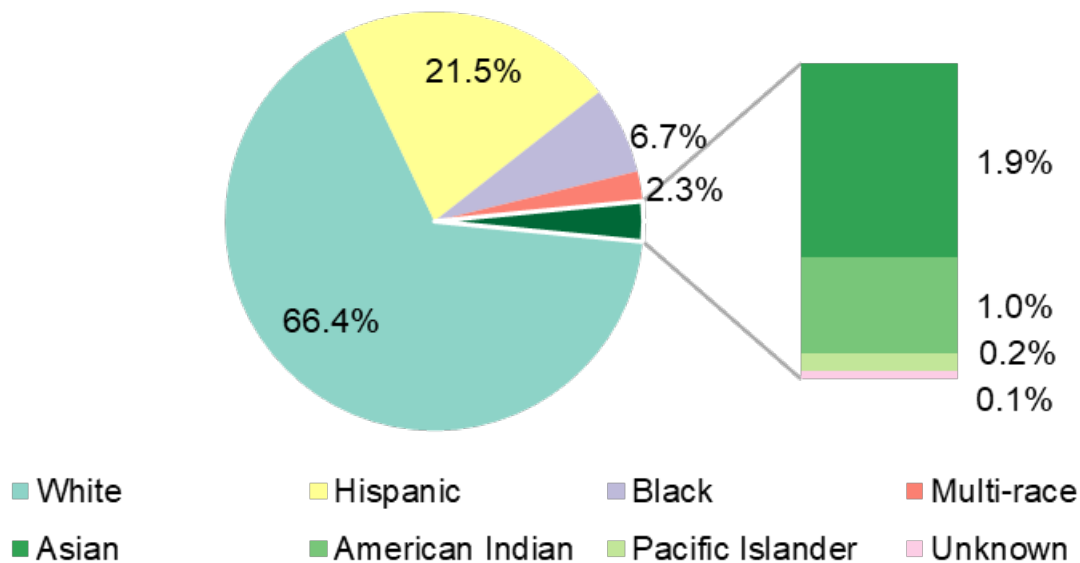


Fig. 18 Racial/Ethnic Identities of Men Living with HIV Resemble Utah's Overall Population, 2017



HIV Medical Care

Background

Recent research has indicated that antiretroviral therapy (ART) not only improves and preserves the health and life expectancy of HIV-positive individuals, but can also be used as a prevention strategy to reduce new HIV infections. People living with HIV who maintain a **suppressed** HIV viral load (<200 viral copies/mL of blood) have a reduced risk of transmitting HIV to their HIV-negative partners. In addition, HIV-positive individuals with an **undetectable** HIV viral load (<20 viral copies/mL of blood) effectively have no risk of transmitting HIV to their partners. These new developments have resulted in the CDC's U=U campaign. Ensuring people with newly diagnosed HIV infection are aware of their HIV status and linked promptly to medical care helps to maintain good health and lowers the risk of transmitting HIV to sexual partners once their HIV viral loads are suppressed. Therefore, it is crucial to keep people living with diagnosed HIV in consistent HIV medical care so they can maintain suppressed or undetectable viral loads, which, in turn, reduces the rate of new HIV infections.

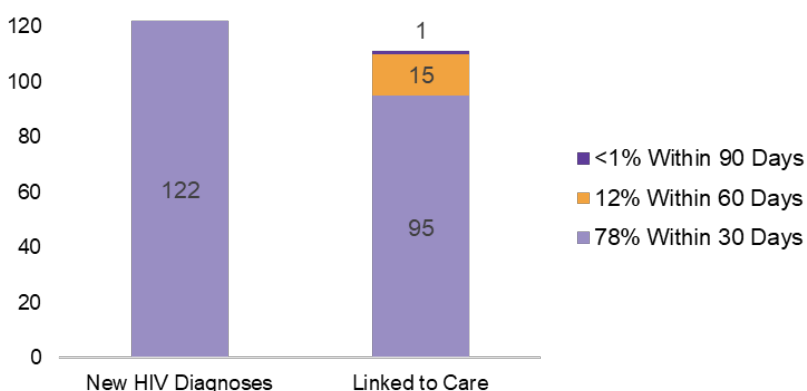


Linkage to Care

Linkage to care measures the number of individuals receiving an HIV diagnosis in a calendar year who had an indication of care (one or more documented viral loads, CD4 or genotype tests). The CDC recently announced, as one of the national HIV prevention objectives, a new goal to link at least 85% of persons with newly diagnosed HIV to care within 30 days. To learn more please visit <https://www.cdc.gov/hiv/pdf/library/factsheets/cdc-hiv-care-continuum.pdf> ([Understanding the HIV Care Continuum](#)).

In 2018, Utah had 122 new HIV diagnoses, among whom 95 (78%) were linked to HIV medical care within 30 days of their HIV diagnosis. The 30-day standard has evolved over time from 90 days several years ago, to an intermediary measure of 60 days, then to the present standard. The UDOH finds it helpful to measure improvements at the 60- and

Fig. 19 Only 78% of 2018 Diagnoses in Utah were Linked to Care Within 30 Days



90-day marks to help demonstrate the effectiveness of quicker linkage to care. An additional 12% of new HIV diagnoses were linked to HIV medical care within 60 days of diagnosis, and fewer than 1% between 60 and 90 days. The total linkage to care rate for 2018 was roughly 91% (Figure 19). Delays in linkage to care may be one reason that people are not in care and lost to follow-up.

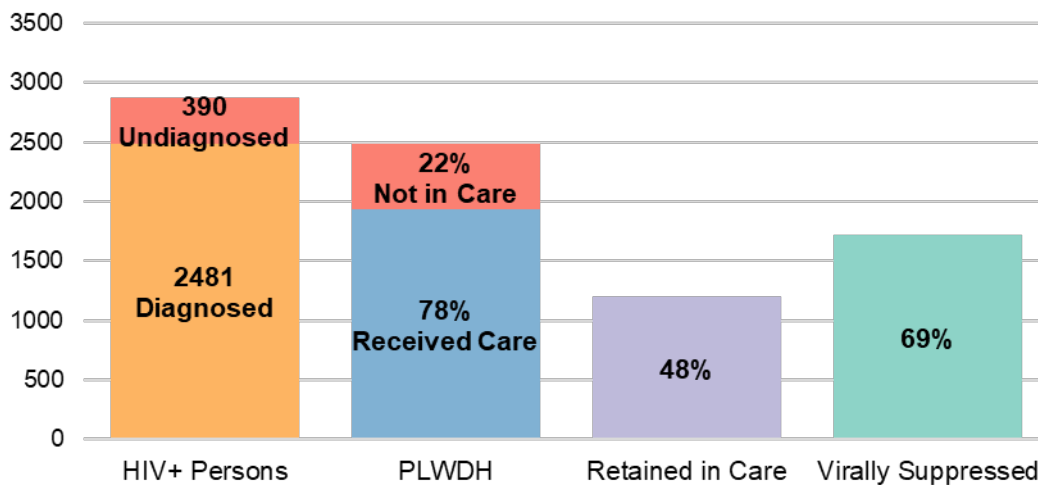
HIV Care Continuum

The HIV care continuum is a tool based on surveillance data to track the HIV care status of people living with diagnosed HIV. It is vital for people living with HIV to achieve viral suppression not only for staying healthy, improving quality of life, and increasing life expectancy, but for reducing the risk of HIV transmission to partners as well. The HIV care continuum measures several essential steps to achieving viral suppression. Recently the CDC published, as national HIV prevention objectives, goals to increase the proportion of HIV-positive individuals aware of their status to 90% and to increase the proportion of HIV-diagnosed individuals whose virus is effectively suppressed to 80%.

The care continuum represents some of the most important indicators for HIV prevention work in Utah. Consequently, the UDOH has attempted to utilize the most accurate estimates possible in Figure 20. The numbers presented in Figure 20 vary

from those utilized in other sections of this report, as they only include persons with information reported to the UDOH in the past five years. Persons whom the UDOH records indicate have not had an address change or laboratory results recorded for five years or more are presumed to have either passed away or moved out of state. This is a reasonable assumption given that HIV infection which goes untreated for five years or more is very likely to result in complications which will compel PLWDH to seek medical care (and, therefore, receive laboratory results) regardless of where they are residing.

Fig. 20 As of 12/31/2017, 69% of PLWDH in Utah were Virally Suppressed

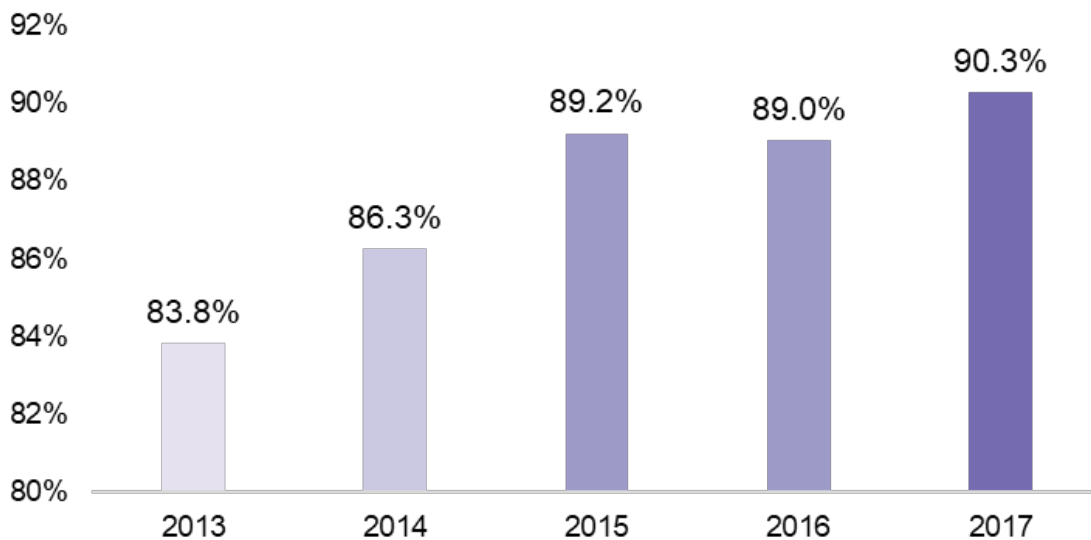


The continuum also includes an estimate of the total HIV-infected population in Utah. This estimate is determined by using a CDC provided prevalence estimate calculation. Accordingly, in 2017, approximately 2,871 people were living with HIV-infection in Utah with just under 15% unaware of their status. The vast majority (n=2,481) had already been diagnosed with HIV.

Nearly eight out of ten (78%) PLWDH in Utah had at least one viral load, CD4, or genotype test in 2017, which indicates receipt of some sort of HIV medical care, and nearly half (48%) were retained in HIV medical care. This is defined as having received two or more viral load or CD4 tests at least three months apart. In 2017, about seven in ten (69%) PLWDH in Utah were virally suppressed at the time of their most recent viral load (regardless of their retention in care status).

Figure 21 demonstrates the continuous improvement in the efficacy of HIV medication. In 2013, about 84% of the PLWDH who received care attained viral suppression (HIV viral load <200 copies/mL). This percentage has increased in subsequent years. In 2017, more than 90% of the PLWDH who were in care were virally suppressed.

Fig. 21 The Vast Majority of PLWDH in Utah Who Receive Care Achieve Viral Suppression



Perinatal HIV Prevention

It has long been known that HIV-positive mothers can transmit the virus to their babies during childbirth or through breastfeeding. Every HIV surveillance team in the nation is mandated by the CDC to monitor live births and fetal deaths in their state for potential mother-to-child transmission. While Utah has not had a reported case of perinatal HIV infection reported in more than a decade, it is important to remain alert.

With the advancement of HIV treatments, mother-to-child transmission can be easily avoided, a fact which is often unknown to the public. It is important to communicate to HIV-positive women, their medical care providers, and the public in general that healthy babies are routinely born to HIV-positive mothers who maintain a suppressed viral load through medication. It is also vital that the clinical care providers of HIV-positive women are aware of their patient's HIV status. This promotes access to antiretroviral medications, proper delivery of the baby, and sound advice concerning breastfeeding for the mother. Accordingly, national recommendations from multiple organizations promote HIV screening during **every** pregnancy and additional third-trimester screening for women at increased risk.

Every child born to an HIV-positive mother should be reported to the UDOH. There are, however, significant challenges with meeting this requirement. Electronic lab reporting may not occur as usual because the infant does not have a name at the time of their HIV test. Physicians may not recognize the need to report a positive screening test because it is the mother's antibodies which caused the positive result and does not necessarily mean the infant has HIV. However, because pregnancy in an HIV-positive

woman is a reportable event in Utah, these test results should be reported to the UDOH so the HIV surveillance team can work with local health departments to ensure the continued health and wellbeing of every child who has potentially been exposed to HIV through childbirth or breastfeeding. The UDOH currently checks birth records to discover unreported HIV exposures and is developing better reporting and investigation tools to support mothers and healthcare professionals to ensure each infant stays healthy.

Ryan White Part B Clients

The Ryan White HIV/AIDS program is the largest federal program directed exclusively toward HIV care. The program helps more than half a million uninsured and underinsured people living with diagnosed HIV receive HIV medical care, treatment, and supportive services each year.

The Ryan White HIV/AIDS program is separated into parts that assist specific areas or populations. The Utah Department of Health is a Ryan White Part B recipient.

Ryan White is a “payer of last resort,” meaning persons who qualify experience considerable financial difficulty and are usually unable to obtain or afford health insurance even through the marketplace. Figure 23 shows nearly 37% of people living with diagnosed HIV in Utah were enrolled in the Ryan White HIV/AIDS Part B program in 2017. This percentage increases every year. This is believed to be due both to the considerable improvements made within the program to support more clients, and an increase in the percentage of PLWDH in Utah who experience financial hardship.

Historically, not all enrolled clients access services (for a variety of reasons) and are consequently not considered active clients. Active clients are defined as individuals who enrolled in the Ryan White Part B program and used services offered by the Ryan White Part B program at least once in the assessment year. The percentage of active Ryan White Part B clients among PLWDH in Utah from 2013 to 2017 is displayed in Figure 24. In 2013, 22% of the people living with diagnosed HIV accessed Ryan White Part B services. That number has been fairly steady for several years. A change in how the program handles enrollment and monitors payments in 2017 may be responsible for the apparent jump in service access or it may be due to the decrease in the estimate of PLWDH mentioned earlier.

Fig. 23 Many People Living with HIV in Utah were Enrolled in Ryan White in 2017

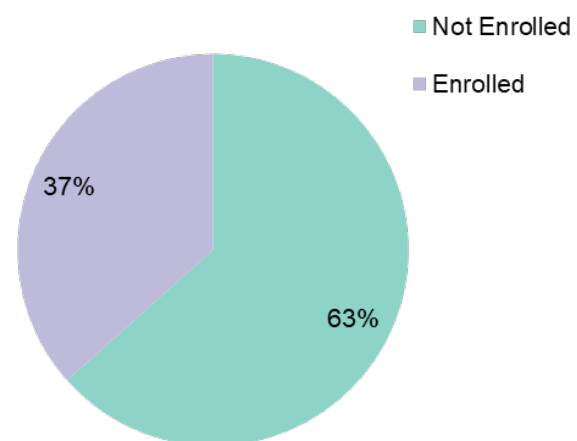


Fig. 24 More Utahns Living with HIV are Utilizing Ryan White Part B Services

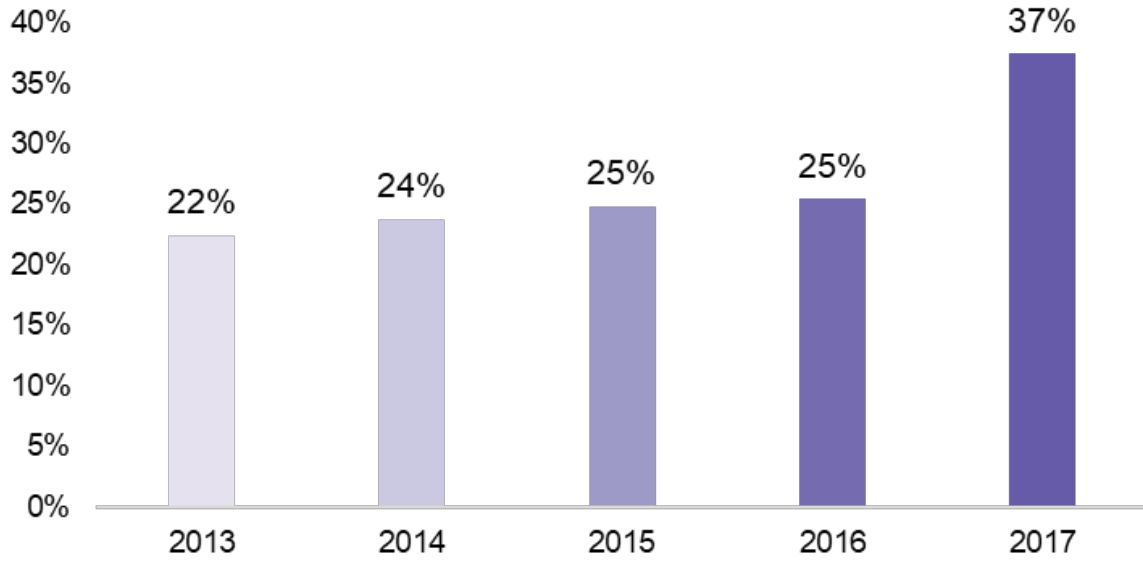


Table 1. New Diagnoses of HIV and Rates per 100,000 Residents by Local Health District, Utah, 2009–2018

Local Health District	2009		2010		2011		2012		2013	
	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)
Bear River	5	3.1* (1 - 7.21)	4	†	2	†	4	†	4	†
Central	1	†	1	†	1	†	2	†	0	–
Davis County	14	4.6 (2.53 - 7.78)	10	3.2* (1.56 - 5.97)	2	†	11	3.5* (1.74 - 6.23)	5	1.6* (0.5 - 3.62)
Salt Lake County	91	8.9 (7.21 - 10.99)	58	5.6 (4.26 - 7.26)	85	8.1 (6.48 - 10.03)	67	6.3 (4.88 - 7.99)	79	7.3 (5.79 - 9.11)
San Juan County	0	–	0	–	0	–	1	†	1	†
Southeast	1	†	0	–	0	–	0	–	1	†
Southwest	5	2.5* (0.81 - 5.79)	3	†	4	†	7	3.3* (1.34 - 6.88)	2	†
Summit County	0	–	1	†	2	†	0	–	1	†
Tooele County	2	†	2	†	4	6.8* (1.84 - 17.3)	3	†	1	†
TriCounty	2	†	0	–	1	†	2	†	3	†
Utah County	6	1.2* (0.44 - 2.59)	8	1.5* (0.66 - 3.03)	2	†	19	3.5 (2.12 - 5.5)	6	1.1* (0.4 - 2.37)
Wasatch County	0	–	0	–	0	–	0	–	0	–
Weber-Morgan	2	†	1	†	5	2.1* (0.67 - 4.79)	6	2.4* (0.89 - 5.31)	9	3.6* (1.66 - 6.88)
Utah State	129	4.7 (3.95 - 5.63)	88	3.2 (2.54 - 3.91)	108	3.8 (3.15 - 4.63)	122	4.3 (3.55 - 5.1)	112	3.9 (3.18 - 4.65)

Local Health District	2014		2015		2016		2017		2018	
	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)
Bear River	1	†	2	†	1	†	1	†	4	†
Central	1	†	1	†	1	†	2	†	2	†
Davis County	8	2.4* (1.05 - 4.79)	11	3.3* (1.64 - 5.88)	4	1.2* (0.32 - 3)	8	2.3* (0.99 - 4.53)	8	2.2* (0.97 - 4.4)
Salt Lake County	87	8.0 (6.39 - 9.83)	78	7.1 (5.58 - 8.81)	105	9.4 (7.66 - 11.34)	85	7.5 (5.98 - 9.25)	77	6.6 (5.2 - 8.23)
San Juan County	0	–	0	–	0	–	0	–	1	†
Southeast	1	†	3	†	2	†	1	†	0	–
Southwest	6	2.8* (1.02 - 6.02)	9	4.1* (1.86 - 7.72)	4	†	6	2.5* (0.93 - 5.54)	7	2.9* (1.16 - 5.94)
Summit County	1	†	1	†	0	–	2	†	1	†
Tooele County	2	†	1	†	0	–	1	†	1	†
TriCounty	0	–	1	†	2	†	0	–	2	†
Utah County	5	0.9* (0.29 - 2.08)	12	2.1 (1.08 - 3.66)	14	2.4 (1.3 - 3.98)	9	1.5* (0.68 - 2.82)	13	2.1 (1.11 - 3.56)
Wasatch County	0	–	0	–	0	–	0	–	0	–
Weber-Morgan	5	2.0* (0.65 - 4.65)	4	†	6	2.3* (0.85 - 5.05)	3	†	6	2.2* (0.81 - 4.81)
Utah State	117	4.0 (3.29 - 4.77)	123	4.1 (3.42 - 4.92)	139	4.6 (3.84 - 5.39)	118	3.8 (3.15 - 4.56)	122	3.8 (3.17 - 4.56)

* Use caution in interpreting; the estimate has a coefficient of variation greater than 30% and does not meet UDOH standards for reliability

† Coefficient of variation >50: Rates are not suitable for comparison or trend analysis

Table 2. New Diagnoses of HIV and Rates per 100,000 Among Females by Age Category, Utah, 2009–2018

Age Group	2009		2010		2011		2012		2013	
	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)
<13	1	†	1	†	1	†	0	–	0	–
13-24	2	†	0	–	3	†	1	†	3	†
25-34	7	†	4	1.8* (0.5 - 4.71)	7	3.2* (1.29 - 6.61)	5	2.3* (0.75 - 5.38)	3	†
35-44	7	4.4* (1.77 - 9.05)	6	3.7* (1.34 - 7.94)	2	†	10	5.7* (2.73 - 10.45)	5	2.7* (0.89 - 6.38)
45-54	2	†	1	†	2	†	2	†	2	†
55-64	0	–	1	†	3	†	1	†	1	†
65+	0	–	0	–	0	–	1	†	0	–
Total	19	1.4 (0.84 - 2.19)	13	0.9 (0.5 - 1.61)	18	1.3 (0.76 - 2.03)	20	1.4 (0.86 - 2.18)	14	1.0 (0.53 - 1.63)

Age Group	2014		2015		2016		2017		2018	
	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)
<13	1	†	0	–	0	–	0	–	0	–
13-24	2	†	1	†	2	†	2	†	3	†
25-34	5	2.3* (0.75 - 5.39)	3	†	5	2.3* (0.73 - 5.26)	4	1.8* (0.48 - 4.55)	3	†
35-44	7	3.7* (1.49 - 7.65)	4	†	7	3.5* (1.4 - 7.17)	2	†	1	†
45-54	2	†	3	†	4	†	1	†	3	†
55-64	1	†	1	†	2	†	1	†	0	–
65+	0	–	0	–	1	†	1	†	0	–
Total	18	1.2 (0.73 - 1.95)	12	0.8 (0.42 - 1.41)	21	1.4 (0.86 - 2.12)	11	0.7* (0.36 - 1.28)	10	0.6* (0.3 - 1.16)

* Use caution in interpreting; the estimate has a coefficient of variation greater than 30% and does not meet UDOH standards for reliability

† Coefficient of variation >50: Rates are not suitable for comparison or trend analysis

Table 3. New Diagnoses of HIV and Rates per 100,000 Among Males by Age Category, Utah, 2009–2018

Age Group	2009		2010		2011		2012		2013	
	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)
<13	0	–	2	†	0	–	0	–	2	†
13-24	16	5.9 (3.39 - 9.62)	16	5.9 (3.37 - 9.58)	21	7.6 (4.71 - 11.64)	15	5.3 (2.98 - 8.79)	16	5.6 (3.17 - 9.02)
25-34	38	16.8 (11.9 - 23.08)	16	7.0 (3.99 - 11.34)	24	10.5 (6.75 - 15.67)	39	17.3 (12.31 - 23.66)	42	18.7 (13.5 - 25.31)
35-44	30	18.1 (12.21 - 25.84)	26	15.2 (9.94 - 22.3)	23	13.0 (8.26 - 19.55)	14	7.7 (4.18 - 12.84)	19	10.0 (6.03 - 15.63)
45-54	17	11.2 (6.5 - 17.86)	11	7.2* (3.59 - 12.85)	18	11.8 (6.98 - 18.6)	23	15.0 (9.54 - 22.58)	13	8.5 (4.53 - 14.55)
55-64	7	6.2* (2.47 - 12.68)	3	†	3	†	11	8.6* (4.27 - 15.32)	5	3.8* (1.23 - 8.83)
65+	2	†	1	†	1	†	0	–	1	†
Total	110	8.0 (6.61 - 9.69)	75	5.4 (4.23 - 6.74)	90	6.4 (5.12 - 7.82)	102	7.1 (5.8 - 8.63)	98	6.7 (5.46 - 8.19)

Age Group	2014		2015		2016		2017		2018	
	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)
<13	0	–	0	–	0	–	0	–	0	–
13-24	18	6.2 (3.66 - 9.77)	14	4.7 (2.59 - 7.95)	29	9.6 (6.45 - 13.84)	24	7.8 (5.02 - 11.67)	24	7.6 (4.88 - 11.33)
25-34	42	18.7 (13.48 - 25.29)	44	19.6 (14.22 - 26.27)	45	19.7 (14.36 - 26.34)	40	17.2 (12.3 - 23.44)	46	19.2 (14.08 - 25.64)
35-44	22	11.2 (7.03 - 16.99)	31	15.3 (10.41 - 21.75)	26	12.5 (8.14 - 18.26)	17	7.9 (4.6 - 12.65)	19	8.6 (5.16 - 13.4)
45-54	9	5.9* (2.68 - 11.13)	16	10.3 (5.89 - 16.74)	13	8.2 (4.39 - 14.09)	11	6.9* (3.42 - 12.28)	13	7.9 (4.19 - 13.47)
55-64	6	4.4* (1.63 - 9.64)	5	3.6* (1.17 - 8.39)	5	3.5* (1.14 - 8.19)	12	8.3* (4.27 - 14.42)	7	4.7* (1.88 - 9.64)
65+	2	†	1	†	0	–	3	†	3	†
Total	99	6.7 (5.44 - 8.16)	111	7.4 (6.08 - 8.9)	118	7.7 (6.37 - 9.22)	107	6.9 (5.62 - 8.28)	112	7.0 (5.74 - 8.38)

* Use caution in interpreting; the estimate has a coefficient of variation greater than 30% and does not meet UDOH standards for reliability

† Coefficient of variation >50: Rates are not suitable for comparison or trend analysis

Table 4. Case Counts and Percentages of New HIV Diagnoses Among Females by Transmission Category, Utah, 2009–2018

Age Group	2009		2010		2011		2012		2013	
	Case(s)	%	Case(s)	%	Case(s)	%	Case(s)	%	Case(s)	%
IDU	2	10.53	0	0.00	2	11.11	4	20.00	3	21.43
High-risk heterosexual contact	11	57.89	5	38.46	12	66.67	8	40.00	5	35.71
Heterosexual contact of unknown risk	5	26.32	6	46.15	3	16.67	6	30.00	4	28.57
Adult Unknown	0	0.00	1	7.69	0	0.00	2	10.00	2	14.29
Perinatal exposure through mother w/HIV or high risk	1	5.26	1	7.69	0	0.00	0	0.00	0	0.00
Pediatric Unknown	0	0.00	0	0.00	1	5.56	0	0.00	0	0.00
Total	19	100.00	13	100.00	18	100.00	20	100.00	14	100.00

Age Group	2014		2015		2016		2017		2018	
	Case(s)	%	Case(s)	%	Case(s)	%	Case(s)	%	Case(s)	%
IDU	2	11.11	2	16.67	1	4.76	1	9.09	3	30.00
High-risk heterosexual contact	6	33.33	5	41.67	1	4.76	0	0.00	0	0.00
Heterosexual contact of unknown risk	6	33.33	2	16.67	7	33.33	4	36.36	5	50.00
Adult Unknown	3	16.67	3	25.00	12	57.14	6	54.55	2	20.00
Perinatal exposure through mother w/HIV or high risk	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Pediatric Unknown	1	5.56	0	0.00	0	0.00	0	0.00	0	0.00
Total	18	100.00	12	100.00	21	100.00	11	100.00	10	100.00

Table 5. Case Counts and Percentages of New HIV Diagnoses Among Males by Transmission Category, 2009–2018

Age Group	2009		2010		2011		2012		2013	
	Case(s)	%	Case(s)	%	Case(s)	%	Case(s)	%	Case(s)	%
MSM	66	60.00	50	66.67	53	58.89	62	60.78	64	65.31
IDU	4	3.64	2	2.67	3	3.33	1	0.98	1	1.02
MSM/IDU	27	24.55	20	26.67	25	27.78	22	21.57	19	19.39
High-risk heterosexual contact	3	2.73	0	0.00	1	1.11	7	6.86	1	1.02
Heterosexual contact of unknown risk	7	6.36	1	1.33	4	4.44	7	6.86	2	2.04
Perinatal exposure in someone diagnosed \geq 13 years old	0	0.00	0	0.00	1	1.11	0	0.00	0	0.00
Adult Unknown	3	2.73	0	0.00	3	3.33	3	2.94	9	9.18
Perinatal exposure through mother w/HIV or high risk	0	0.00	2	2.67	0	0.00	0	0.00	1	1.02
Pediatric Unknown	0	0.00	0	0.00	0	0.00	0	0.00	1	1.02
Total	110	100.00	75	100.00	90	100.00	102	100.00	98	100.00

Age Group	2014		2015		2016		2017		2018	
	Case(s)	%	Case(s)	%	Case(s)	%	Case(s)	%	Case(s)	%
MSM	63	63.64	77	69.37	75	63.56	77	71.96	82	73.21
IDU	1	1.01	2	1.80	6	5.08	0	0.00	2	1.79
MSM/IDU	16	16.16	13	11.71	14	11.86	11	10.28	12	10.71
High-risk heterosexual contact	3	3.03	4	3.60	2	1.69	0	0.00	1	0.89
Heterosexual contact of unknown risk	7	7.07	10	9.01	3	2.54	11	10.28	2	1.79
Perinatal exposure in someone diagnosed \geq 13 years old	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adult Unknown	9	9.09	5	4.50	18	15.25	8	7.48	13	11.61
Perinatal exposure through mother w/HIV or high risk	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Pediatric Unknown	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Total	99	100.00	111	100.00	118	100.00	107	100.00	112	100.00

Table 6. Case Counts and Rates per 100,000 of New HIV Diagnoses Among Females by Race/Ethnicity, Utah, 2009–2018

Race/Ethnicity	2009		2010		2011		2012		2013	
	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)
Hispanic, all races	4	†	6	3.4* (1.26 - 7.48)	5	2.8* (0.91 - 6.51)	2	†	1	†
American Indian/Alaska Native	0	–	0	–	0	–	1	†	0	–
Asian	2	†	1	†	2	†	1	†	1	†
Black	8	72.9* (31.46 - 143.6)	3	†	3	†	4	†	6	47.9* (17.56 - 104.18)
Native Hawaiian/Other Pacific Islander	0	–	0	–	0	–	0	–	0	–
White	5	0.5* (0.15 - 1.06)	3	†	8	0.7* (0.31 - 1.4)	10	0.9* (0.42 - 1.61)	5	0.4* (0.14 - 1.01)
Multi-race	0	–	0	–	0	–	2	†	1	†
Unknown	0	–	0	–	0	–	0	–	0	–
Total	19	1.4 (0.84 - 2.19)	13	0.9 (0.5 - 1.61)	18	1.3 (0.76 - 2.03)	20	1.4 (0.86 - 2.18)	14	1.0 (0.53 - 1.63)

Race/Ethnicity	2014		2015		2016		2017		2018	
	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)
Hispanic, all races	2	†	0	–	2	†	3	†	1	†
American Indian/Alaska Native	0	–	0	–	0	–	1	†	0	–
Asian	2	†	1	†	1	†	0	–	1	†
Black	3	†	4	†	12	87.6 (45.28 - 153.08)	5	34.9* (11.35 - 81.54)	3	†
Native Hawaiian/Other Pacific Islander	0	–	0	–	0	–	0	–	0	–
White	10	0.9* (0.41 - 1.58)	7	0.6* (0.24 - 1.22)	5	0.4* (0.14 - 0.97)	2	†	5	0.4* (0.13 - 0.93)
Multi-race	0	–	0	–	0	–	0	–	0	–
Unknown	1	–	0	–	1	–	0	–	0	–
Total	18	1.2 (0.73 - 1.95)	12	0.8 (0.42 - 1.41)	21	1.4 (0.86 - 2.12)	11	0.7* (0.36 - 1.28)	10	0.6* (0.3 - 1.16)

* Use caution in interpreting; the estimate has a coefficient of variation greater than 30% and does not meet UDOH standards for reliability

† Coefficient of variation >50: Rates are not suitable for comparison or trend analysis

Table 7. Case Counts and Rates per 100,000 of New HIV Diagnoses Among Males by Race/Ethnicity, Utah, 2009–2018

Race/Ethnicity	2009		2010		2011		2012		2013	
	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)
Hispanic, all races	27	15.0 (9.89 - 21.84)	21	11.3 (6.98 - 17.24)	20	10.5 (6.41 - 16.21)	25	12.8 (8.31 - 18.95)	22	11.0 (6.91 - 16.7)
American Indian/Alaska Native	1	†	0	–	0	–	4	†	0	–
Asian	4	†	0	–	4	14.9* (4.06 - 38.12)	1	†	2	†
Black	4	†	5	32.6* (10.57 - 75.98)	2	†	4	†	7	41.7* (16.76 - 85.87)
Native Hawaiian/Other Pacific Islander	0	–	0	–	1	†	1	†	0	–
White	70	6.4 (4.96 - 8.04)	47	4.2 (3.09 - 5.6)	59	5.2 (3.97 - 6.73)	65	5.7 (4.39 - 7.25)	63	5.4 (4.18 - 6.96)
Multi-race	4	†	2	†	4	†	2	†	4	†
Unknown	0	–	0	–	0	–	0	–	0	–
Total	110	8.0 (6.61 - 9.69)	75	5.4 (4.23 - 6.74)	90	6.4 (5.12 - 7.82)	102	7.1 (5.8 - 8.63)	98	6.7 (5.46 - 8.19)

Race/Ethnicity	2014		2015		2016		2017		2018	
	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)	Case(s)	Rate (95% CI)
Hispanic, all races	27	13.3 (8.75 - 19.32)	31	14.8 (10.08 - 21.06)	33	15.3 (10.54 - 21.5)	37	16.6 (11.71 - 22.92)	28	12.2 (8.12 - 17.66)
American Indian/Alaska Native	0	–	2	†	1	†	2	†	2	†
Asian	6	19.5* (7.17 - 42.53)	7	21.7* (8.74 - 44.77)	7	20.7* (8.31 - 42.58)	5	14.0* (4.55 - 32.69)	6	16.3* (5.99 - 35.54)
Black	9	52.0* (23.76 - 98.62)	6	33.4* (12.27 - 72.76)	10	53.1* (25.48 - 97.71)	7	35.4* (14.23 - 72.92)	5	24.6* (7.97 - 57.3)
Native Hawaiian/Other Pacific Islander	0	–	1	†	0	–	0	–	3	†
White	57	4.9 (3.69 - 6.31)	64	5.4 (4.16 - 6.9)	63	5.2 (4.02 - 6.69)	54	4.4 (3.32 - 5.77)	66	5.2 (4.06 - 6.68)
Multi-race	0	–	0	–	3	†	2	†	1	†
Unknown	0	–	0	–	1	–	0	–	1	–
Total	99	6.7 (5.44 - 8.16)	111	7.4 (6.08 - 8.9)	118	7.7 (6.37 - 9.22)	107	6.9 (5.62 - 8.28)	112	7.0 (5.74 - 8.38)

* Use caution in interpreting; the estimate has a coefficient of variation greater than 30% and does not meet UDOH standards for reliability

† Coefficient of variation >50: Rates are not suitable for comparison or trend analysis

Table 8. Case Counts and Percentages of New HIV Diagnoses with Stage 3 Infection (AIDS) at Time of Diagnosis by Race/Ethnicity, Utah, 2009–2013 vs. 2014–2018

Race/Ethnicity	2009–2013			2014–2018		
	Stage 0–2	Stage 3	%	Stage 0–2	Stage 3	%
Hispanic, all races	93	40	30.1	128	36	22.0
Non-Hispanic, American Indian/Alaska Native	3	3	50.0	8	0	0.0
Non-Hispanic, Asian	13	5	27.8	29	7	19.4
Non-Hispanic, Black	33	13	28.3	56	8	12.5
Non-Hispanic, Native Hawaiian/Other Pacific Islander	0	2	100.0	3	1	25.0
Non-Hispanic, White	257	78	23.3	296	37	11.1
Non-Hispanic, multi-race	15	4	21.1	6	0	0.0
Unknown	0	0	–	4	0	0.0
Total	414	145	25.9	530	89	14.4

Table 9. Number of Persons Living with Diagnosed HIV and Rate per 100,000 by Local Health District, Utah, 2013–2017

Local Health District	2013		2014		2015		2016		2017	
	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)
Bear River	68	40.0 (31.05 - 50.7)	69	40.2 (31.31 - 50.93)	70	40.3 (31.39 - 50.87)	73	41.1 (32.21 - 51.68)	71	39.2 (30.65 - 49.5)
Central	27	35.6 (23.45 - 51.76)	29	38.1 (25.5 - 54.69)	30	39.0 (26.32 - 55.7)	32	40.9 (27.96 - 57.71)	28	35.2 (23.37 - 50.84)
Davis County	182	56.5 (48.56 - 65.29)	186	56.6 (48.73 - 65.31)	194	57.9 (50.07 - 66.69)	197	57.7 (49.94 - 66.36)	187	53.8 (46.36 - 62.08)
Salt Lake County	1880	173.9 (166.17 - 181.98)	1940	177.8 (169.95 - 185.87)	2010	182.0 (174.13 - 190.14)	2094	186.7 (178.82 - 194.91)	2052	180.7 (172.96 - 188.68)
San Juan County	3	†	5	33.2* (10.79 - 77.52)	5	32.8* (10.65 - 76.57)	5	32.6* (10.59 - 76.12)	3	†
Southeast	13	31.7 (16.87 - 54.17)	15	36.8 (20.61 - 60.75)	18	44.7 (26.49 - 70.64)	22	54.7 (34.25 - 82.76)	22	54.9 (34.43 - 83.18)
Southwest	92	43.4 (34.95 - 53.16)	99	45.7 (37.11 - 55.59)	112	50.6 (41.68 - 60.91)	122	53.6 (44.47 - 63.94)	134	56.9 (47.64 - 67.34)
Summit County	22	57.2 (35.85 - 86.6)	24	61.4 (39.33 - 91.33)	24	60.6 (38.83 - 90.18)	26	64.4 (42.05 - 94.32)	27	65.7 (43.29 - 95.57)
Tooele County	27	44.5 (29.34 - 64.78)	26	42.3 (27.64 - 62)	28	44.7 (29.7 - 64.6)	32	49.5 (33.88 - 69.93)	31	46.0 (31.22 - 65.23)
TriCounty	18	31.7 (18.78 - 50.08)	23	39.5 (25.03 - 59.25)	21	35.2 (21.79 - 53.82)	24	41.7 (26.7 - 62.01)	22	39.1 (24.53 - 59.26)
Utah County	166	30.1 (25.69 - 35.03)	176	31.4 (26.91 - 36.37)	180	31.4 (26.99 - 36.35)	196	33.2 (28.71 - 38.18)	203	33.5 (29.03 - 38.41)
Wasatch County	14	52.5 (28.7 - 88.07)	12	43.0 (22.22 - 75.11)	11	37.6* (18.76 - 67.24)	10	32.7* (15.69 - 60.16)	9	28.0* (12.82 - 53.21)
Weber-Morgan	146	58.8 (49.62 - 69.11)	158	63.0 (53.56 - 73.62)	158	62.2 (52.88 - 72.69)	167	64.6 (55.14 - 75.12)	171	64.9 (55.5 - 75.34)
Unknown	18	–	19	–	4	–	5	–	5	–
Utah State	2676	92.3 (88.81 - 95.84)	2781	94.6 (91.15 - 98.22)	2865	96.0 (92.5 - 99.56)	3005	98.7 (95.21 - 102.3)	2965	95.6 (92.18 - 99.09)

*Use caution in interpreting; the estimate has a coefficient of variation greater than 30% and does not meet UDOH standards for reliability

† Coefficient of variation >50: Rates are not suitable for comparison or trend analysis

Table 10. Numbers of Persons Living with Diagnosed HIV and Rates per 100,000 Among Females by Age Group, Utah, 2013–2017

Age Group	2013		2014		2015		2016		2017	
	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)
<13 yrs	5	1.5 (0.5 - 3.6)	5	1.5 (0.5 - 3.6)	7	2.2 (0.87 - 4.44)	5	1.5 (0.5 - 3.58)	3	0.9 (0.19 - 2.68)
13-24 yrs	7	2.5 (1.01 - 5.2)	11	3.9 (1.96 - 7.01)	12	4.2 (2.18 - 7.39)	12	4.2 (2.15 - 7.28)	13	4.4 (2.36 - 7.59)
25-34 yrs	66	30.5 (23.57 - 38.78)	60	27.7 (21.15 - 35.68)	51	23.5 (17.48 - 30.86)	49	22.1 (16.35 - 29.21)	43	19.1 (13.83 - 25.74)
35-44 yrs	119	65.1 (53.93 - 77.9)	129	68.4 (57.1 - 81.27)	141	72.4 (60.91 - 85.34)	138	68.6 (57.67 - 81.1)	129	62.2 (51.93 - 73.91)
45-54 yrs	121	79.6 (66.09 - 95.16)	128	84.1 (70.13 - 99.95)	129	84.1 (70.2 - 99.91)	145	93.4 (78.78 - 109.85)	140	89.1 (74.92 - 105.1)
55-64 yrs	57	41.7 (31.6 - 54.06)	61	43.5 (33.25 - 55.84)	68	47.2 (36.65 - 59.83)	72	48.7 (38.09 - 61.31)	77	51.0 (40.24 - 63.72)
65+ yrs	16	10.5 (6 - 17.04)	17	10.7 (6.25 - 17.17)	21	12.7 (7.89 - 19.48)	27	15.7 (10.34 - 22.83)	34	18.9 (13.11 - 26.45)
Total	391	27.1 (24.5 - 29.95)	411	28.1 (25.48 - 30.99)	429	28.9 (26.25 - 31.79)	448	29.6 (26.95 - 32.5)	439	28.5 (25.9 - 31.3)

*Use caution in interpreting; the estimate has a coefficient of variation greater than 30% and does not meet UDOH standards for reliability

† Coefficient of variation >50: Rates are not suitable for comparison or trend analysis

Table 11. Numbers of Persons Living with Diagnosed HIV and Rates per 100,000 Among Males by Age Group, Utah, 2013–2017

Age Group	2013		2014		2015		2016		2017	
	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)
<13 yrs	4	1.2 (0.32 - 3)	7	2.0 (0.82 - 4.22)	6	1.8 (0.64 - 3.81)	7	2.0 (0.82 - 4.18)	7	2.0 (0.81 - 4.16)
13-24 yrs	36	12.5 (8.75 - 17.29)	42	14.4 (10.4 - 19.5)	45	15.2 (11.1 - 20.37)	47	15.6 (11.47 - 20.76)	54	17.6 (13.25 - 23.02)
25-34 yrs	289	128.8 (114.42 - 144.59)	297	132.3 (117.69 - 148.24)	320	142.3 (127.13 - 158.78)	344	150.5 (135.02 - 167.28)	349	150.2 (134.82 - 166.77)
35-44 yrs	521	274.5 (251.39 - 299.07)	529	269.9 (247.34 - 293.86)	529	261.5 (239.69 - 284.76)	534	256.0 (234.72 - 278.64)	542	251.9 (231.15 - 274.04)
45-54 yrs	895	585.9 (548.11 - 625.55)	866	564.0 (527.03 - 602.82)	819	527.7 (492.19 - 565.13)	822	520.8 (485.83 - 557.69)	755	470.9 (437.88 - 505.7)
55-64 yrs	432	326.8 (296.73 - 359.14)	501	370.0 (338.28 - 403.83)	562	404.0 (371.28 - 438.82)	616	432.2 (398.74 - 467.72)	619	425.8 (392.9 - 460.69)
65+ yrs	108	83.2 (68.24 - 100.44)	128	94.3 (78.65 - 112.09)	155	109.3 (92.75 - 127.89)	187	125.7 (108.33 - 145.07)	200	128.3 (111.11 - 147.34)
Total	2285	156.7 (150.33 - 163.25)	2370	160.4 (153.96 - 166.94)	2436	162.2 (155.84 - 168.79)	2557	166.9 (160.48 - 173.48)	2526	161.7 (155.5 - 168.18)

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† Coefficient of variation >50: Rates are not suitable for comparison or trend analysis

Table 12. Number & Percentage of Persons Living with Diagnosed HIV Among Females by Transmission Category, Utah, 2013–2017

Transmission Category	2013		2014		2015		2016		2017	
	#	%	#	%	#	%	#	%	#	%
IDU	88	22.5%	96	23.4%	95	22.1%	97	21.7%	86	19.6%
High-risk heterosexual contact	204	52.2%	206	50.1%	215	50.1%	225	50.2%	214	48.7%
Heterosexual contact of unknown risk	77	19.7%	81	19.7%	86	20.0%	90	20.1%	91	20.7%
Transfusion/Other	2	0.5%	2	0.5%	2	0.5%	2	0.4%	2	0.5%
Adult Unknown	10	2.6%	14	3.4%	17	4.0%	21	4.7%	34	7.7%
Perinatal exposure through mother	8	2.0%	9	2.2%	9	2.1%	9	2.0%	8	1.8%
Pediatric Unknown	2	0.5%	3	0.7%	5	1.2%	4	0.9%	4	0.9%
Total	391	100.0%	411	100.0%	429	100.0%	448	100.0%	439	100.0%

Table 13. Number & Percentage of Persons Living with Diagnosed HIV Among Males by Transmission Category, Utah, 2013–2017

Transmission Category	2013		2014		2015		2016		2017	
	#	%	#	%	#	%	#	%	#	%
MSM	1497	65.9%	1557	66.1%	1597	65.9%	1706	67.0%	1679	66.8%
MSM/IDU	386	17.0%	392	16.6%	397	16.4%	398	15.6%	372	14.8%
IDU	171	7.5%	173	7.3%	169	7.0%	164	6.4%	154	6.1%
High-risk heterosexual contact	58	2.6%	61	2.6%	68	2.8%	67	2.6%	65	2.6%
Heterosexual contact of unknown risk	92	4.1%	96	4.1%	101	4.2%	106	4.2%	111	4.4%
Adult Transfusion/Other	3	0.1%	3	0.1%	3	0.1%	3	0.1%	3	0.1%
Adult Unknown	40	1.8%	49	2.1%	63	2.6%	72	2.8%	100	4.0%
Perinatal exposure through mother	16	0.7%	17	0.7%	17	0.7%	19	0.7%	20	0.8%
Pediatric Transfusion/Other	5	0.2%	4	0.2%	4	0.2%	4	0.2%	4	0.2%
Pediatric Unknown	2	0.1%	5	0.2%	5	0.2%	6	0.2%	6	0.2%
Total	2270	100.0%	2357	100.0%	2424	100.0%	2545	100.0%	2514	100.0%

Table 14. Number of Persons Living with Diagnosed HIV and Rate per 100,000 Among Females by Race/Ethnicity, Utah, 2013–2017

Race/Ethnicity	2013		2014		2015		2016		2017	
	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)
Hispanic, all races	81	43.0 (34.11 - 53.39)	84	43.6 (34.74 - 53.93)	88	44.3 (35.56 - 54.62)	92	44.8 (36.15 - 55)	91	43.0 (34.6 - 52.76)
American Indian/Alaska Native	3	†	2	†	2	†	2	†	2	†
Asian	11	32.8* (16.37 - 58.68)	12	34.5 (17.84 - 60.32)	15	41.4 (23.19 - 68.34)	16	42.2 (24.09 - 68.46)	18	45.3 (26.82 - 71.52)
Black	94	749.8 (605.95 - 917.61)	103	804.3 (656.5 - 975.46)	106	807.8 (661.36 - 977.02)	113	825.2 (680.11 - 992.17)	120	838.6 (695.26 - 1002.73)
Native Hawaiian/Other Pacific Islander	2	†	2	†	2	†	2	†	1	†
White	191	16.6 (14.29 - 19.07)	198	17.0 (14.7 - 19.52)	205	17.4 (15.09 - 19.94)	212	17.7 (15.41 - 20.27)	198	16.3 (14.12 - 18.76)
Multi-race	8	30.4* (13.14 - 59.96)	9	32.9* (15.05 - 62.48)	9	31.7* (14.51 - 60.24)	9	30.2* (13.8 - 57.29)	6	19.1* (7.01 - 41.55)
Unknown	1	–	1	–	2	–	2	–	3	–
Total	391	27.1 (24.5 - 29.95)	411	28.1 (25.48 - 30.99)	429	28.9 (26.25 - 31.79)	448	29.6 (26.95 - 32.5)	439	28.5 (25.9 - 31.3)

*Use caution in interpreting; the estimate has a coefficient of variation greater than 30% and does not meet UDOH standards for reliability

† Coefficient of variation >50: Rates are not suitable for comparison or trend analysis

Table 15. Number of Persons Living with Diagnosed HIV and Rate per 100,000 Among Males by Race/Ethnicity, Utah, 2013–2017

Race/Ethnicity	2013		2014		2015		2016		2017	
	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)	#	Rate (95% CI)
Hispanic, all races	437	219.2 (199.09 - 240.7)	458	225.3 (205.12 - 246.89)	488	233.5 (213.26 - 255.19)	529	245.4 (224.98 - 267.28)	543	244.0 (223.93 - 265.44)
American Indian/Alaska Native	22	161.1 (100.95 - 243.89)	25	180.8 (116.97 - 266.83)	25	177.8 (115.07 - 262.48)	25	174.6 (112.97 - 257.7)	24	164.7 (105.53 - 245.08)
Asian	25	84.8 (54.85 - 125.12)	29	94.4 (63.24 - 135.62)	35	108.6 (75.67 - 151.09)	39	115.1 (81.87 - 157.39)	48	134.5 (99.15 - 178.3)
Black	148	881.2 (744.96 - 1035.17)	157	906.3 (770.04 - 1059.62)	164	913.8 (779.25 - 1064.8)	168	892.6 (762.7 - 1038.22)	170	859.5 (735.11 - 998.8)
Native Hawaiian/Other Pacific Islander	3	†	3	†	3	†	4	†	4	†
White	1606	138.6 (131.93 - 145.58)	1648	140.7 (134.02 - 147.7)	1669	140.8 (134.16 - 147.76)	1740	144.5 (137.8 - 151.46)	1677	137.3 (130.82 - 144.04)
Multi-race	41	152.9 (109.74 - 207.46)	47	168.9 (124.1 - 224.6)	49	168.9 (124.95 - 223.3)	49	160.6 (118.8 - 212.3)	58	179.7 (136.45 - 232.3)
Unknown	3	–	3	–	3	–	3	–	2	–
Total	2285	156.7 (150.33 - 163.25)	2370	160.4 (153.96 - 166.94)	2436	162.2 (155.84 - 168.79)	2557	166.9 (160.48 - 173.48)	2526	161.7 (155.5 - 168.18)

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† Coefficient of variation >50: Rates are not suitable for comparison or trend analysis

Table 16. Number and Percentage of Active Ryan White Clients Among Persons Living with Diagnosed HIV, Utah, 2013–2017

Status	2013		2014		2015		2016		2017	
	#	%	#	%	#	%	#	%	#	%
Active Ryan White Client	675	25.2%	720	25.9%	789	27.5%	1150	38.3%	1163	39.2%
Not an Active Ryan White Client*	2001	74.8%	2061	74.1%	2076	72.5%	1855	61.7%	1802	60.8%
Total	2676	100.0%	2781	100.0%	2865	100.0%	3005	100.0%	2965	100.0%

*Client may have enrolled in Ryan White HIV/AIDS program in that calendar year, but did not access any service.