UTAH DEPARTMENT OF HEALTH

Utah Health Status Update:
Ending the HIV Epidemic

Special Edition 7 *(May 2019)*

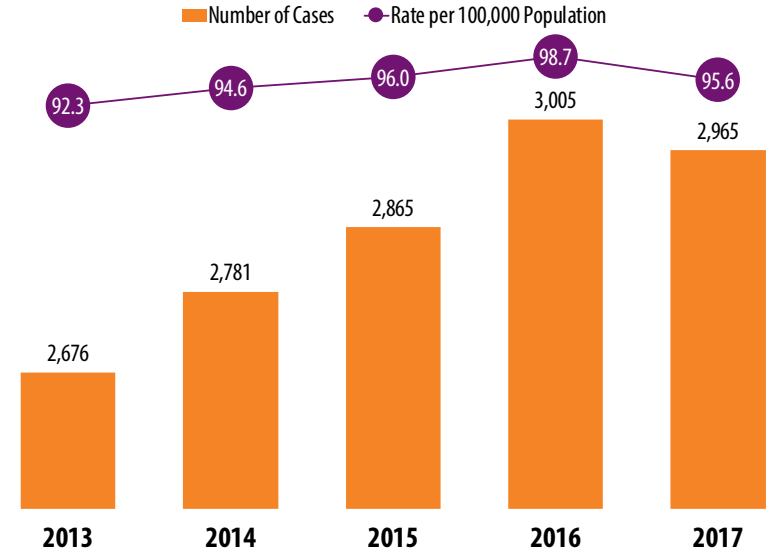
During the early 1980s, Acquired Immunodeficiency Syndrome (AIDS), a novel disease that no one yet understood, began emerging in large metropolitan areas such as New York City and San Francisco. In 1981, the first AIDS report was published in the medical literature.[1] Over the next decade, more than 100,000 deaths would occur, along with more than 150,000 reported cases.[2] On August 18, 1990, Senators Hatch (R-UT) and Kennedy (D-MA) passed the Ryan White Comprehensive AIDS Resources Emergency Act (CARE) to help impede the rapidly growing AIDS epidemic.[3] With the passing of the CARE Act, people living with HIV/AIDS (PLWHA) were able to access wrap-around healthcare (services that provide help pertaining to all aspects of a client's life such as oral health, rental assistance, food vouchers, and medical transportation) and supportive services. This Act has continued to evolve over time. Today, the Ryan White HIV/AIDS program (RWHAP) is broken into five parts, A, B, C, D, and F.[4] Part A funds metropolitan and transitional grant areas; Part B funds core medical services and support services through states and territories; Part C funds primary healthcare services through local community-based organizations; Part D funds primary healthcare for women, children, youth, and infants living with HIV through local, community-based organizations; and Part F sup-

KEY FINDINGS

- **Utah is a low incidence state with an estimated prevalence of 2,965 cases and approximately 120 new HIV diagnoses per year.**
- **In the first quarter of 2019, the UDOH had 1,180 participants enrolled in the Ryan White Part B Program, accounting for roughly one-third of all HIV cases in Utah.**
- **Approximately 90% of Utah Part B clients are virally suppressed, which exceeds both the rate for all PLWHA in the state of Utah and national Ryan White participants.**
- **The continued commitment of the UDOH and its partners to help PLWHA achieve viral load suppression has the potential to lead to zero new transmissions.**

Persons Living With Diagnosed HIV

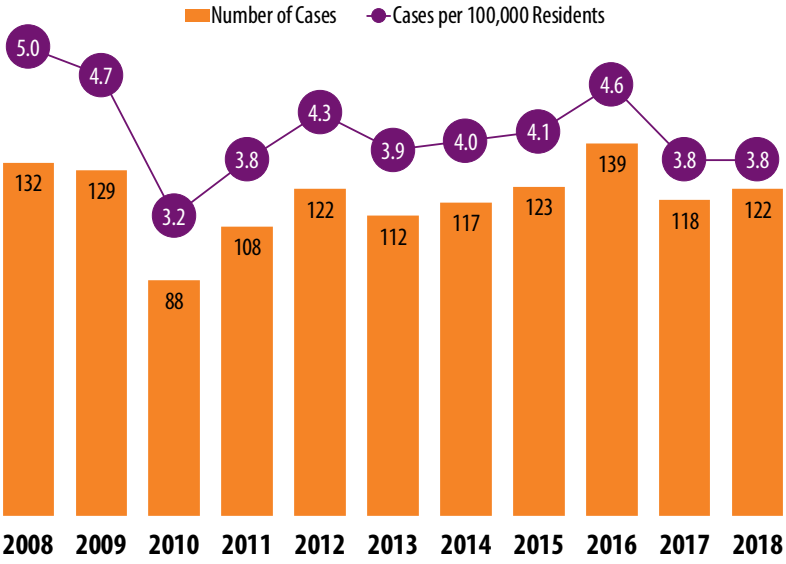
Figure 1. From 2013 to 2017 in Utah, the case counts and rates of persons living with diagnosed HIV increased steadily.



Source: Utah Department of Health Bureau of Epidemiology

New HIV Diagnoses

Figure 2. Utah is a low incidence state with an estimated prevalence of approximately 120 new HIV diagnoses per year.



Source: Utah Department of Health Bureau of Epidemiology

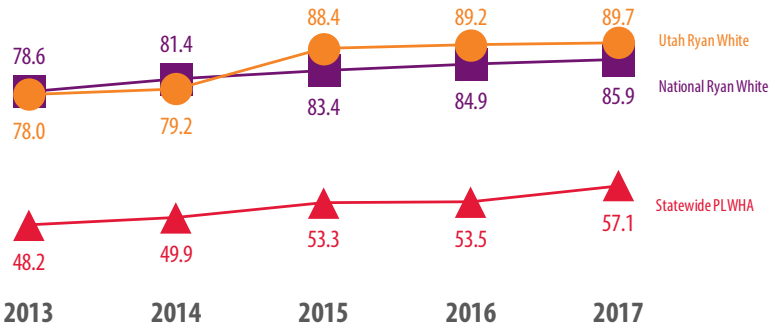
ports clinical training, technical assistance, and development of special projects. The Utah Department of Health (UDOH) receives Part B funding.[5]

Utah is a low incidence state with an estimated prevalence of 2,965 cases (Figure 1) and approximately 120 new HIV diagnoses per year (Figure 2).[6] As a Part B recipient, the UDOH provides wrap-around care for Utah residents living with HIV/AIDS. In the first quarter of 2019, the UDOH had 1,180 participants enrolled in the Ryan White Part B Program, accounting for roughly one-third of all HIV cases in Utah. In alignment with the UDOH and community partners' work to increase viral suppression rates and decrease new infections, Part B provides medication services for eligible clients. The impetus behind providing medication services is to initiate PLWHA on antiretroviral therapy (ART). ART improves quality of life and has been shown to slow disease progression, leading to longer, healthier lives. Research also shows proper ART adherence can lead to an undetectable viral load (<200 copies/mL). Individuals with an undetectable viral load have effectively no risk of transmitting the virus.[7] Approximately 90% of Utah Part B clients are virally suppressed, which exceeds both the rate for all PLWHA in Utah and the national Ryan White rate (Figure 3).[6]

In order to receive wrap-around care through Utah Part B funding, PLWHA must be a resident of Utah and live at or below 250% of the federal poverty level. Utah Part B programs include the provision of core medical services and supportive services. Core medical services include the payment of eligible insurance premiums, HIV/AIDS medication, and medical visit co-pays. Supportive services include emergency financial assistance for short-term rental and utility assistance, oral health insurance coverage, and food bank and home delivery services. These services increase the probability of successful medication adherence as clients have access to ART medications, a stable living environment, and resources for oral health services and proper nutrition to help combat the side effects of ART. Proper medication adherence, as reported, increases viral load suppression, thus decreasing the disease burden on PLWHA and decreasing further spread of HIV/AIDS.

Viral Suppression Among PLWHA

Figure 3. Approximately 90% of Utah Part B clients have an undetectable viral load (<200 copies/mL), which exceeds rates for all PLWHA in Utah and national Ryan White participants.



Source: Utah Department of Health Bureau of Epidemiology

With the progression of medical science and legislation like the CARE Act, PLWHA can live long, healthy lives. The continued commitment of the UDOH and its partners to help PLWHA achieve viral load suppression has the potential to lead to zero new transmissions, thus ending the spread of the epidemic that once led to widespread panic in the early 1980s.

1. Osmond, D.H. (March 2003) Epidemiology of HIV/AIDS in the United States. Retrieved from http://hivinsite.ucsf.edu/InSite?page=kb-01-03#S1.1X.

2. Health Resources and Services Administration. A Living History: 1990. Retrieved from https://hab.hrsa.gov/livinghistory/timeline/1990.htm.

3. Health Resources and Services Administration. Ryan White Care Act: A Legislative History. Retrieved from https://hab.hrsa.gov/livinghistory/timeline/legislation_hist.htm.

4. Health Resources and Services Administration. (February 2019). Ryan White HIV/AIDS Program Legislation. Retrieved from https://hab.hrsa.gov/about-ryan-white-hivaids-program/ryan-white-hivaids-program-legislation.

5. Health Resources ans Services Administration. (February 2019). About the Ryan White HIV/AIDS Program. Retrieved from https://hab.hrsa.gov/about-ryan-white-hivaids-program/about-ryan-white-hivaids-program.

6. Utah Department of Health Bureau of Epidemiology. (2018). 2017: Annual HIV Surveillance Report. Retrieved from http://health.utah.gov/epi/diseases/hivaids/surveillance/HIV_2017_report.pdf.

7. Rodger, A. J., Cambiano, V., Bruun, T., Vernazza, P., Collins, S., Lunzen, J. V., Lundgren, J. (2016). Sexual Activity Without Condoms and Risk of HIV Transmission in Serodifferent Couples When the HIV-Positive Partner Is Using Suppressive Antiretroviral Therapy. *JAMA*,316(2), 171. doi:10.1001/jama.2016.5148.

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Critical Congenital Heart Disease (CCHD) Screening in Utah

Critical congenital heart disease (CCHD) represents a group of heart defects causing serious, life-threatening symptoms and requiring intervention in infancy. CCHD is often treatable if detected early.

Newborn heart screening by pulse-oximetry has been mandated (Testing of Newborn Infants Utah Health Code Statute 26-10-6(1)(d) and Birth Defects and Critical Congenital Heart Disease Reporting Rule R398-5) as a way to identify newborns with CCHD prior to being discharged from the hospital or within the first two days of life. Pulse oximetry screening is a non-invasive test measuring how much oxygen is in the blood. Since the mandate was passed, there has been a high rate of screening newborns for CCHD in Utah (Table 1).

Table 2 shows CCHDs that were identified using pulse oximetry in Utah in 2017.

Cautions/Special Cases

Newborns on supplemental oxygen (who have not had echocardiography performed as part of their care) should be screened once they are weaned off supplemental oxygen for at least 24 hours. The CCHD screening algorithm is validated for newborns on room air only. In addition, an early physical exam remains important for babies who pass pulse oximetry screening since some left-sided CCHD lesions (like coarctations) can still be missed by screening.

For additional information about screening for CCHD, visit health.utah.gov/cchd.

Table 1. **Utah CCHD Screening Result Percentages by Birth Year, 2014–2018**

	2014*	2015	2016	2017	2018
Screened	44.8%	92.4%	93.7%	93.9%	94.6%
Pass	44.7%	92.2%	93.6%	93.7%	94.4%
Fail	0.1%	0.2%	0.1%	0.2%	0.2%
Not Screened	55.2%	7.6%	6.3%	6.1%	5.4%

* CCHD screening implemented October 1, 2014.
Source: Utah Department of Health CCHD Screening Program

Table 2. **Utah CCHD Lesions Identified by Pulse Oximetry Screening, 2017**

	Identified by Pulse Oximetry
Total	**10**
Coarctation of the Aorta	6
Hypoplastic Left Heart Syndrome	1
Tetralogy of Fallot	1
Total Anomalous Pulmonary Venous Return	1
Multiple Lesions	1

Source: Utah Department of Health CCHD Screening Program

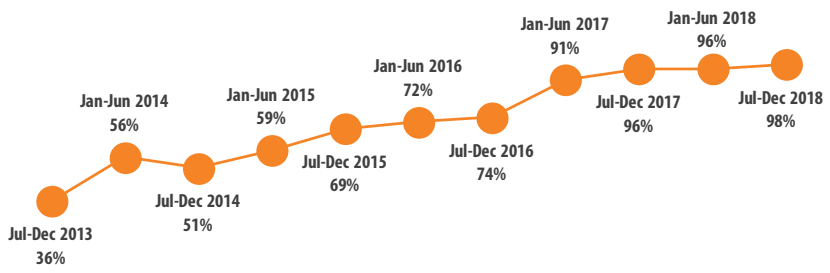
Testing Infants Who Do Not Pass Newborn Hearing Screening(s) for a Congenital Cytomegalovirus (CMV) Infection

In July 2013, a new Utah law (Cytomegalovirus (CMV) Public Education and Testing Utah Health Code Statute 26-10-10) began mandating infants who do not pass their newborn hearing screening(s)—both the initial screening done at birth and their follow-up re-screening (or if their first screening was completed after 14 days of age and the infant did not pass)—to be tested for a congenital cytomegalovirus (CMV) infection. CMV is a very common virus and is passed through direct contact with body fluids, particularly those of young children (e.g. saliva, urine, tears, mucus, blood, etc.). If a pregnant woman has CMV during pregnancy, the virus can transmit to the fetus causing miscarriage, stillbirth, prematurity, or developmental delays, including hearing loss. In fact, congenital CMV is the leading viral cause of hearing loss in children, second only to genetics. Congenital CMV testing is time-sensitive and must be completed before the infant is 21 days old, thus requiring close collaboration and coordination among healthcare providers.

During the first five years of the CMV testing mandate, 1,100 infants were tested and 3% of them were found to have congenital CMV. Early detection of congenital CMV allows for appropriate referrals to be made to medical specialists (pediatric otolaryngology, opthalmology, neurology, and infectious disease) and to early intervention services, of which congenital CMV is a qualifying diagnosis. Currently, 98% of eligible infants are receiving CMV testing after not passing newborn hearing screening (Figure 1).

To learn more, visit health.utah.gov/CMV.

Figure 1. **Percentage of Eligible Infants Tested for Congenital CMV by 6-month Intervals, Utah, July 2013–December 2018**



Source: Utah Department of Health Cytomegalovirus Public Education and Testing Program