

Key takeaways

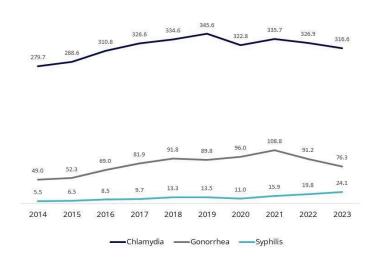
- Utah has fewer STI cases reported than most other states. Out of the 50 states, Utah is 44th for chlamydia, 43rd for gonorrhea, 37th for primary and secondary syphilis), and 37th for congenital syphilis.
- More than 80% of STI cases are reported from the Wasatch Front.
- Females have higher rates of chlamydia while males have higher rates of gonorrhea and syphilis.
- Individuals aged 15 to 24 had highest rates for chlamydia, while gonorrhea and syphilis were higher in individuals aged 25 to 34.
- Congenital syphilis cases have increased 4 times from 2019.
- To effectively prevent STIs, the most recommended strategies include using condoms consistently and correctly during all types of sexual activity, limiting the number of sexual partners, and/or practicing abstinence. Regular STI testing, and open communication with partners about STI status.
- Pre-exposure prophylaxis (PrEP) should be considered for individuals at high risk of HIV.

STI trends in Utah

Chlamydia, gonorrhea, and syphilis—annual surveillance update

Of the more than 75 reportable communicable diseases, sexually transmitted infections (STIs) are the most reported. There were 14,415 STI cases reported in 2023, a 3% decrease from 2022. Chlamydia continues to be the most frequently reported STI with 10,944 reported cases, followed by gonorrhea with 2,638 cases and syphilis (all stages, including congenital) with 833 cases (Table 1). Chlamydia and gonorrhea both decreased from 2022 (3% and 16%, respectively). Syphilis cases continue to rise at a significant rate with a 23% increase from 2022. Congenital syphilis (CS) cases rose more than 4 times since 2019.

Figure 1. STI rates per 100,000 population, Utah, 2014–2023



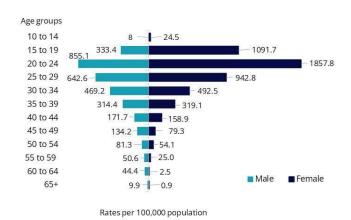
Source: Utah Department of Health and Human Services Office of Communicable Diseases. UT-NEDSS (reportable disease surveillance system) and population data from Utah Population Committee estimates by the Kem C. Gardner Policy Institute.



Chlamydia remained the number one reported STI in the state. Throughout Utah, most of the cases are from the Wasatch Front: Salt Lake County (51%), Utah County (14%), Davis County (9%), and Weber-Morgan counties (9%) (Table 2).

STIs are common, especially among young people. In Utah, adolescents and young adults (aged 15–24) account for 17% of the population but account for 55% of all reported cases (Figure 2).

Figure 2. Chlamydia rates by gender and age, Utah, 2023



Note: Source: Utah Department of Health and Human Services Office of Communicable Diseases. UT_NEDSS (reportable disease surveillance system) and population data from Utah Population Committee estimates by the Kem C. Gardner Policy Institute.

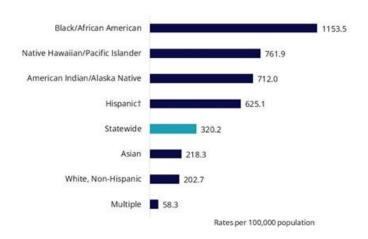
Most cases are among females (62%), however this does not necessarily mean females have more infections than males. Chlamydia infections often have no symptoms, so screening can influence rates. Higher rates in females may be due to higher rates of screening when compared to males.

From 2022, the rate among men decreased 1% and rates among women decreased by 6%. Decreases among women were most notable in those aged 20 to 44 (19%). However, there was an unequal increase among women aged 35 to 39 (35%) when compared to the other age groups.

Racial/ethnic minorities continued to be unevenly affected by syphilis in 2023. Decreases were reported in most racial and ethnic groups, with the largest decreases among those who identify as Asian (20%) and as Native Hawaiian or Pacific Islander (17%). However, those who identify as American Indian or Alaska Native saw a 24% increase. Individuals who identified as Black or African American had the highest rates of all ethnic and racial groups with rates almost 5 times higher than those who identified as White (Figure 3).



Figure 3. Chlamydia rates by race/ethnicity, Utah, 2023



†Includes persons of Hispanic ethnicity regardless of race.

Source: Utah Department of Health and Human Services Office of Communicable Diseases, UT-NEDSS (reportable disease surveillance system) and population data for race/ethnicity is from the IBIS-Q query module which were produced by the U.S. Bureau of the Census.

Recommendations. In order for Utah to continue to see decreases in chlamydia rates the following are recommended.

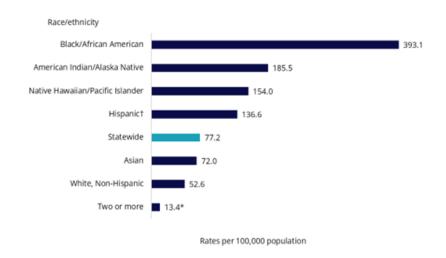
- Screening is key!
 - Yearly testing should be performed for:
 - All sexually active women who are younger than 25 years of age.
 - Women who have sex with more than one partner, have a new partner, and/or use barrier contraceptives inconsistently.
 - Anyone with other STIs.
 - Rectal testing for MSM with rectal exposure.
 - All pregnant people should be tested during their first prenatal visit.
 - Any pregnant people younger than 25 years of age, at increased risk for chlamydia (people who have a new or more than one sex partner), and/or are found to have chlamydial infection during the first trimester should be retested during the third trimester.
 - People who did not receive prenatal care should be screened at delivery.
- Recognize the increased risk for other STIs. Anyone positive for chlamydia should:
 - Be screened for HIV, gonorrhea, and syphilis.
 - Be offered HIV pre-exposure prophylaxis (PrEP) if HIV negative MSM.
- Provider guidelines can be found in DHHS' chlamydia <u>disease plan</u> or <u>CDC STI Treatment</u> <u>Guidelines</u>.



Gonorrhea continued to be the second most reported STI with most cases reported along the populous Wasatch Front (89%): Salt Lake County (68%), Utah County (10%), Davis County (6%), and Weber-Morgan (5%) (Table 2).

Like chlamydia, racial/ethnic minorities continued to shoulder a higher burden of gonorrhea (Figure 4). All racial and ethnic groups saw a decrease in rates from 2022. The highest increases were in individuals who identify as Native Hawaiian or Pacific Islanders (42%) and in Black or African American (37%). Even with a decrease in rates, those who identify as Black or African American had rates 6.5 times higher than those who identified as White.

Figure 4. Gonorrhea rates by race/ethnicity, Utah, 2023



 $^{^{\}scriptscriptstyle \dagger}$ Includes persons of Hispanic ethnicity regardless of race.

Source: Utah Department of Health and Human Services Office of Communicable Diseases, UT-NEDSS (reportable disease surveillance sy query module which were produced by the U.S. Bureau of the Census.

Gonorrhea affected a slightly older age group than chlamydia, with higher rates among individuals in older age groups. Females aged 20 to 29 and males aged 25 to 34 had the highest rates of gonorrhea (Figure 5).



Figure 5. Gonorrhea rates by age group and sex, Utah, 2023



Rates per 100,000 population

Source: Utah Department of Health and Human Services Office of Communicable Diseases. UT_NEDSS (reportable disease surveillance system) and population data from Utah Population Committee estimates by the Kem C. Gardner Policy Institute.

*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet DHHS standards for reliability. Rate estimates with relative standard errors greater than 50% have been suppressed.

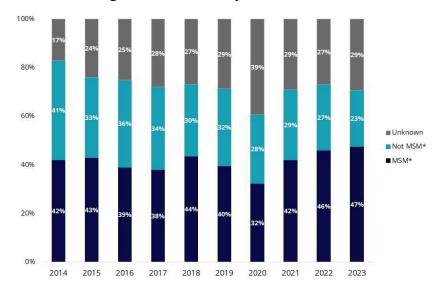
From 2022 to 2023, rates decreased among both males (12%) and females (26%). Females showed the highest decreases in rates among those aged 20 to 24 (38%) and 25 to 29 (45%). Females primarily had decreases in rates, however in those aged 50 to 54 there was an increase of 37%.

Among males, the most significant decrease was in ages 20 to 29 (30%). The largest increases were in individuals aged 35 to 39 (16%) and 45 to 49 (15%).

Most cases were among males (70%), with rates more than 2 times higher than females. In 2023, of the men with known sexual orientation, most infections were among men who have sex with men (MSM) (67%) (Figure 6).



Figure 6. Percent of male gonorrhea cases by sexual orientation, Utah, 2014–2023



^{*}MSM = Men who have sex with men

Source: Utah Department of Health and Human Services Office of Communicable Diseases. UT_NEDSS (reportable disease surveillance system).

Recommendations. Utah has seen some significant decreases in gonorrhea over the last several years and to continue these decreases, the following steps are recommended.

- Expedited partner therapy (EPT) is highly recommended by public health officials to treat partners of those diagnosed with gonorrhea.
- EPT is legal in Utah. For details, see <u>Utah's EPT law.</u>
- As with chlamydia, screening is key!
 - Yearly testing should be performed for:
 - All sexually active women who are younger than 25 years of age.
 - Women who have sex with more than one partner, have a new partner, and/or use barrier contraceptives inconsistently.
 - Anyone with other STIs.
 - MSM should be screened at all sites of exposure (urethral, pharyngeal, and rectal) every 3 to 6 months.
 - All pregnant people should be tested during their first prenatal visit.
 - Any pregnant people younger than 25 years of age, at increased risk for gonorrhea (people who have a new or more than one sex partner), and/or are found to have chlamydial infection during the first trimester should be retested during the third trimester.
 - People who did not receive prenatal care should be screened at delivery.
- Recognize the increased risk for other STIs. Anyone positive for gonorrhea should:
 - Be screened for HIV, chlamydia, and syphilis.
 - Be offered HIV pre-exposure prophylaxis (PrEP) if HIV negative MSM
- Provider guidelines can be found in DHHS' gonorrhea <u>disease plan</u> or <u>CDC STI Treatment</u> <u>Guidelines.</u>



Syphilis is a complex sexually transmitted infection made up of several stages: primary, secondary, early, non-primary non-secondary, and late or unknown duration. Each stage has its own signs and symptoms. Untreated syphilis may affect the cardiovascular system, nervous system, skin, bone, and other tissues.

Primary syphilis is the first stage and it begins with a sore(s) at the location where syphilis entered the body. The sore is painless and may go unnoticed. The sore usually lasts 3 to 6 weeks and heals regardless of treatment.^{1,2}

Secondary syphilis is the next stage. In this stage there may be skin rashes and/or sores. The rash can show up when the primary sore is healing or several weeks after the sore has healed. The rash usually won't itch and may be so faint it goes unnoticed. Other symptoms may include fever, sore throat, headache, muscle aches, swollen glands, and feeling tired. The symptoms will go away even if the syphilis is not treated. ^{1,2}

Early, non-primary non secondary syphilis: Without treatment, syphilis infection persists in the body even though symptoms have stopped. This can occur between primary and secondary stages or after the secondary stage. People are classified as early non-primary non-secondary if they meet certain diagnostic criteria.^{1,2}

Unknown duration or late syphilis: The stage in which the initial infection occurred more than 12 months before the diagnosis date, or in which there is insufficient evidence to conclude the infection was acquired during the previous 12 months.^{1,2}

Congenital syphilis occurs during pregnancy when an untreated mother with syphilis passes it to the baby. This can occur during any stage of syphilis and in any trimester. However, the risk of transmission is highest if the person has acquired syphilis recently. Syphilis during pregnancy can cause tragic outcomes, like miscarriage, stillbirth, infant death, developmental delays, and lifelong medical issues.³

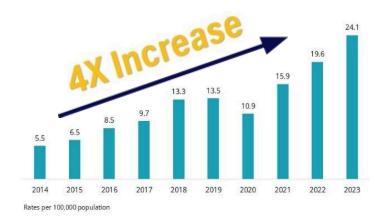
In 2023, 838 cases of syphilis (all stages including congenital syphilis) were reported in Utah.

- 170 cases of primary syphilis (59% increase compared to 2022).
- 158 cases of secondary syphilis (17% increase compared to 2022).
- 162 cases of early, non-primary non-secondary syphilis (12% decrease compared to 2022).
- 332 cases of unknown duration or late syphilis (33% increase compared to 2022).
- 16 cases of congenital syphilis (129% or more than double compared to 2022).

Utah continued to see sharp increases in syphilis with a 23% increase in rates from 2022 and a four fold increase over the past 10 years (Figure 7).



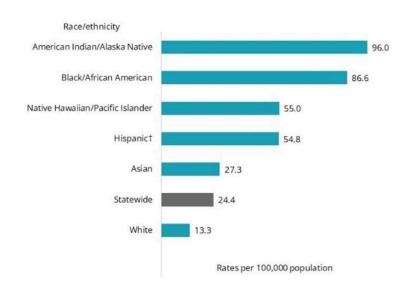
Figure 7. All stages of syphilis rates, Utah, 2014–2023



Source: Utah Department of Health and Human Services Office of Communicable Diseases. UT_NEDSS (reportable disease surveillance system) and population data from Utah Population Committee estimates by the Kem C. Gardner Policy Institute.

Racial and ethnic minorities continued to have a higher rate of syphilis. People who identify as American Indian or Alaska Native had the highest rates, with a 53% increase from 2022, and rates 6 times higher than those of Whites. Individuals who identify as Black or African Americans had the second highest rates, with a 5% increase, and rates over 5 times higher than those of Whites. All racial and ethnicities, except for Whites, had rates higher than the statewide rate (Figure 8).

Figure 8. All stages of syphilis rates by race/ethnicity, Utah, 2023



† Includes persons of Hispanic ethnicity regardless of race.

Source: Utah Department of Health and Human Services Office of Communicable Diseases, UT-NEDSS (reportable disease surveillance system) and population data for race/ethnicity is from the IBIS-Q query module which were produced by the U.S. Bureau of the Census.

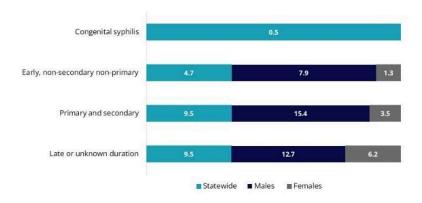
Note: Any race or ethnicity with suppressed rates are not displayed on the graph.



Syphilis cases were reported in all age groups, except those aged 1 to 14. Like gonorrhea, syphilis saw higher rates in older age groups with individuals aged 30 to 34 (66.8 per 100,000 population) followed by individuals aged 25 to 29 (59.3 per 100,000 population) having the second highest rates. Due to low cases, syphilis is not broken down by age and sex.

Syphilis rates increased in both males (11%) and females (65%) from 2022. Males accounted for 77% of the cases and 82% of P&S cases. Rates in males were more than 3 times higher than females (Figure 9). Increased rates in females could be due to increased screening.

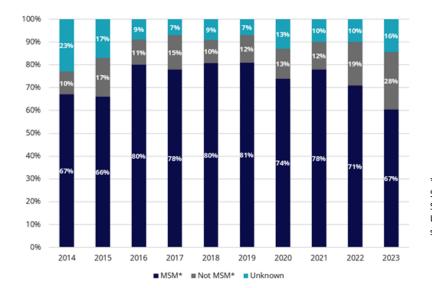
Figure 9. Syphilis rates per 100,000 population by stage, Utah, 2023



Source: Utah Department of Health and Human Services Office of Communicable Diseases. UT_NEDSS (reportable disease surveillance system) and population data from Utah Population Committee estimates by the Kem C. Gardner Policy Institute.

Syphilis rates were highest among MSM, accounting for 67% of male syphilis cases. (Figure 10). This is concerning as MSM who are HIV-negative and diagnosed with P&S syphilis are more likely to get HIV in the future. Infection with syphilis and other STIs might indicate ongoing behaviors and exposures that place a person at greater risk for acquiring HIV.

Figure 10. Percent of male syphilis cases by sexual orientation, Utah, 2014–2023

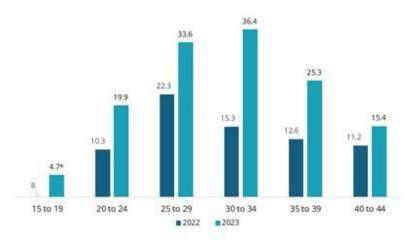


*MSM = Men who have sex with men Source: Utah Department of Health and Human Services Office of Communicable Diseases. UT_NEDSS (reportable disease surveillance system).



After more than a decade of extremely low case rates, syphilis rates in females have increased more than 3.5 times since 2019. From 2022 to 2023, rates increased 86%, with the highest rates in females aged 30 to 34. Rates in this age group nearly doubled (Figure 11).

Figure 11. All stages of syphilis rates per 100,000 population in females aged 15 to 44, Utah, 2023



Source: Utah Department of Health and Human Services Office of Communicable Diseases. UT_NEDSS (reportable disease surveillance system) and population data from Utah Population Committee estimates by the Kem C. Gardner Policy Institute.

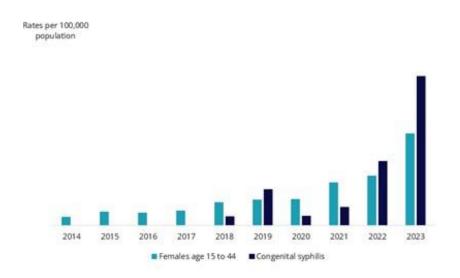
*Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet DHHS standards for reliability.

This brings unique treatment concerns because women who are infected have the potential of passing the infection onto their infants during pregnancy and delivery. Adequate treatment may prevent syphilis from being passed from the mother to the baby during pregnancy which is called congenital syphilis (CS).

The steep increase in syphilis among females aged 15 to 44 is particularly concerning as infections in this population are the most likely to result in infants with congenital syphilis (Figure 12). The trend of CS tends to follow the trend of infections in this population.



Figure 12. Syphilis in females of reproductive age in comparison to congenital syphilis rates, Utah, 2023



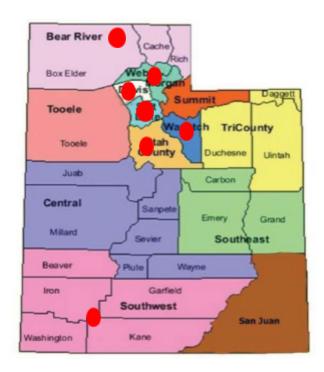
Data sources: Utah Department of Health and Human Services Office of Communicable Diseases, UT-NEDSS (reportable disease surveillance system). Data for congenital syphilis uses live births to calculate the rate. Utah data comes from the Utah Birth Certificate Database, Office of Vital Records and Statistics, Utah Department of Health and Human Services.

Note: Due to the small number of CS cases in Utah, the vertical axis has been suppressed.

In 2023, CS cases continued to rise. Cases were 4 times higher in 2023 than in 2019. From 2022, cases more than doubled. There were no stillborn or fetal deaths reported. CS cases were reported in many areas of the state (Figure 13). Testing for syphilis should occur for all pregnant women at the first prenatal visit, in the third trimester, and again at delivery.



Figure 13. Map of congenital cases, Utah, 2023



Local Health Department	Counties in Service Area
Bear River Health Department	Box Elder, Cache, Rich
Central Utah Public Health Department	Juab, Millard, Piute, Sanpete, Sevier, Wayne
Davis County Health Department	Davis
Salt Lake Valley Health Department	Salt Lake
San Juan Public Health Department	San Juan
Southeastern Utah District Health Department	Carbon, Emery, Grand
Southwest Utah Public Health Department	Beaver, Garfield, Iron, Kane, Washington
Summit County Health Department	Summit
Tooele County Health Department	Tooele
TriCounty Health Department	Daggett, Duchesne, Uintah
Utah County Health Department	Utah
Wasatch County Health Department	Wasatch
Weber-Morgan Health Department	Morgan, Weber

Indicates a LHD with one or more CS case.



Recommendations. Utah continues to have steep increases in syphilis rates. The following are recommended to reduce these rates:

- DHHS recommends treating for syphilis while waiting for confirmatory testing, particularly if the likelihood of successful patient follow-up is uncertain.
- And as with our other STIS, screening is key!
 - Yearly testing should be performed for:
 - Women and men who have sex with women at increased risk (history of incarceration or transactional sex work, geography, race/ethnicity) of syphilis.
 - MSM and transgender at least annually or every 3 to 6 months if at increased risk (history of incarceration or transactional sex work, geography, race/ethnicity, and being younger than 29 years) of syphilis.
 - Persons with HIV.
 - All pregnant people should be tested three times during pregnancy.
 - At the first prenatal visit.
 - Early in the third trimester at approximately 28 weeks gestation or as soon as possible after that.
 - At delivery.
 - In addition, emergency departments and hospital-affiliated urgent care clinics should screen all pregnant persons before discharge if results are not available for current pregnancy.
 - Screen any person who delivers a stillborn infant after 20 weeks gestation.
- Recognize the increased risk for other STIs. Anyone positive for syphilis should:
 - o Be screened for HIV, chlamydia, and gonorrhea.
 - Be offered HIV pre-exposure prophylaxis (PrEP) if HIV negative.
- Provider guidelines can be found in DHHS' syphilis <u>disease plan</u> or <u>CDC STI Treatment Guidelines</u>.



Reported cases and rates of STIs, Utah, 2019-2023

	2019		2020		2021		2022		2023	
	Cases	Rate⁵								
Chlamydia	11,072	345.6	10,492	322.8	11,230	335.7	11,110	326.9	10,944	316.6
Gonorrhea	2,878	89.8	3,121	96.0	3,632	108.6	3,082	90.7	2,638	76.3
Syphilis, early	120	3.7	82	2.5	133	4.0	183	5.4	162	4.7
Syphilis, primary	53	1.7	67	2.1	84	2.5	84	2.5	170	4.9
Syphilis, secondary	86	2.7	68	2.1	123	3.7	123	3.6	158	4.6
Syphilis, late or unknown	169	5.3	141	4.3	190	5.7	242	7.1	327	9.5
Syphilis, congenital	<11	_	<11	_	<11	_	<11	15.3*	16	35.6

Reported cases and rates of STIs by local health district, Utah, 2023

	Chlamydia		Gonorrhea		Early syphilis		P&S syphilis		Late or unknown		Congenital syphilis	
	Cases	Rate⁵	Cases	Rate⁵	Cases	Rate⁵	Cases	Rate⁵	Cases	Rate⁵	Cases	Rate⁵
Bear River	343	166.8	44	21.4	<11	_	<11	2.9*	<11	3.4*	<11	_
Central Utah	136	164.2	12	14.5	<11	_	<11	_	<11	_	0	0.0
Davis County	970	257.0	161	42.7	<11	2.4*	15	4.0	14	3.7	<11	_
Salt Lake County	5,602	459.0	1,797	147.2	108	8.8	250	20.5	186	15.2	<11	13.3*
San Juan	58	387.8	<11	46.8*	<11	_	<11	_	<11	53.5*	0	0.0
Southeast Utah	84	207.3	<11	19.7*	<11	_	<11	9.9*	<11	9.9*	0	0.0
Southwest Utah	730	255.8	112	39.2	<11	_	<11	3.2*	24	8.4	<11	_
Summit County	124	285.1	26	59.8	<11	_	<11	_	<11	11.5*	0	0.0
Tooele County	199	250.6	39	49.1	<11	_	<11	_	<11	6.3*	0	0.0
TriCounty	111	192.6	27	46.8	0	0.0	<11	_	<11	_	0	0.0
Utah County	1,586	217.9	267	36.7	22	3.0	26	3.6	50	6.9	<11	_
Wasatch County	66	174.0	<11	18.5*	0	0.0	<11	_	0	0.0	<11	_
Weber-Morgan	935	330.5	131	46.3	<11	3.5*	<11	2.5*	20	7.1	<11	_
Statewide	10,944	316.6	2,616	76.3	130	4.7	291	9.5	294	9.5	0	35.6

The data sources: DHHS, UT-NEDSS (reportable disease surveillance system) and population data from Utah Population Committee estimates by the Kem C. Gardner Policy Institute. Data for congenital syphilis uses live births to calculate the rate. Utah data comes from the Utah Birth Certificate Database, Office of Vital Records and Statistics, Utah Department of Health and Human Services.

[§] Rate per 100,000 population

^{*} Use caution in interpreting, the estimate has a relative standard error greater than 30% and does not meet DHHS standards for reliability. Rate estimates with relative standard errors greater than 50% have been suppressed.



Resources

The STI Prevention team provides statewide management, education, and training for the prevention of STIs in an inclusive, sex-positive, and empathetic manner. In a large state like Utah, and with STI rates at an all-time high, the STI Prevention team must partner with other groups, agencies, and organizations to deliver information and services. Complete information can be found on the program website. https://epi.utah.gov/ptc-std/

For comprehensive information on STI facts, testing services, and other prevention information <u>visit</u> <u>Catch The Answers.</u>

DHHS disease plans and reporting forms https://epi.utah.gov/plans-and-reports-atozlist/

CDC STI treatment guidelines https://www.cdc.gov/std/treatment-guidelines/default.htm

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