

Utah Health Status Update: *Sexually Transmitted Diseases*

August 2017

In 2016 there was an increase in the rates of all reportable sexually transmitted diseases (STDs) in Utah. In particular, gonorrhea rates increased by 29.7% from 2015 and primary/secondary syphilis rates increased by 37.1% from 2015. The Utah Department of Health (UDOH) is monitoring these

increases and encourages those persons at risk of these infections to be tested.

Gonorrhea rates have increased statewide from 14.9 cases per 100,000 male population in 2011 to 90.1 cases per 100,000 males in 2016, which was a 505% increase; and from 4.7 cases per 100,000 female population in 2011 to 47.3 cases per 100,000 females in 2016, which was a 904% increase (see Figure 1). However, the annual percentage changes of the gonorrhea rates were slightly declined from 63% between 2011 and 2012 to 29% between 2015 and 2016 for men; and from 100% between 2011 and 2012 to 40% between 2015 and 2016 for women.

Local health department Disease Intervention Specialists (DISs) investigate all reported cases of gonorrhea, ensure appropriate treatment, and provide partner services. These DISs are the backbone of the STD prevention program in Utah. In 2016, 92% of gonorrhea cases were appropriately treated (Figure 2) largely due to their efforts.

Gonorrhea is consistently reported in all of the 13 local health districts in Utah; however, the gonorrhea epidemic is centralized along the Wasatch Front. In 2016, 92.4% of the gonorrhea cases reported in the state were reported by a local health department serving the Wasatch Front (Weber-Morgan, Davis, Salt Lake, and Utah). Salt Lake County Health Department reported both the highest number of gonorrhea cases (1,435) and the highest rate of gonorrhea in the state at 127.3 cases per 100,000 persons.

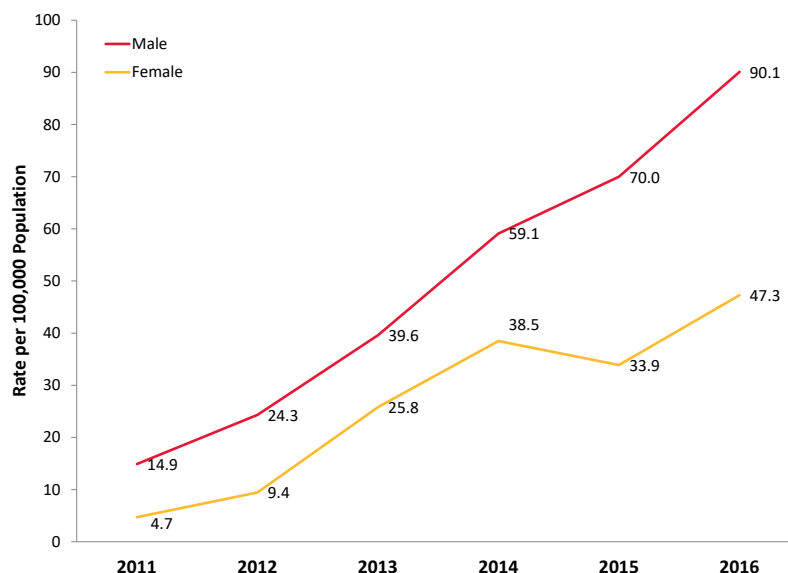
Analysis of gonorrhea surveillance data suggested a shift in the affected populations from primarily men who have sex with men (MSM) to the

KEY FINDINGS

- Gonorrhea rates have increased in Utah from 14.9 cases per 100,000 population in 2011 to 90.1 in 2016 (a 505% increase) for males and from 4.7 to 47.3 for females (a 904% increase).
- In 2016, 92.4% of the gonorrhea cases reported in Utah were reported by a local health department serving the Wasatch Front. Salt Lake County Health Department reported the highest rate of gonorrhea in the state at 127.3 cases per 100,000 persons.
- In 2016, 92% of gonorrhea cases were appropriately treated largely due to efforts of local health department Disease Intervention Specialists.
- Analysis of gonorrhea surveillance data suggested a shift in the affected populations from primarily men who have sex with men (MSM) to the heterosexual population.
- A UDOH study showed adults with gonorrhea were more likely to claim drug use and the use of an app or website to meet sex partners than the control group.
- Reported cases of primary/secondary syphilis in Utah increased from 0.5 cases per 100,000 in 2011 to 3.0 in 2016 and reported cases of early latent syphilis increased from 0.4 per 100,000 to 1.9.
- In 2016, 100% of the reported cases of early syphilis (primary/secondary/early latent) were treated with a recommended treatment.

Gonorrhea Rates by Sex

Figure 1. Gonorrhea rate per 100,000 population by year and sex, Utah, 2011-2016



Source: Bureau of Epidemiology, Utah Department of Health.

heterosexual population. In order to improve public health's response to the rapid increase in gonorrhea cases, the UDOH conducted a study of 573 adults (191 gonorrhea cases and 382 controls) from the Wasatch Front.

Findings showed cases were more likely (OR=3.7) to claim drug use than the controls and female cases were more likely to claim methamphetamine use than were male cases (OR=5.3). Additionally, both male and female cases were more likely to claim the use of an app or website to meet sex partners than controls. Female and male cases claiming the use of a website or app to meet sex partners had 30% and 60% more sex partners, respectively, than the control group. These findings provide valuable insight into the risk factors related to the recent increase and will allow for improved public health response by implementing more effective and targeted interventions.

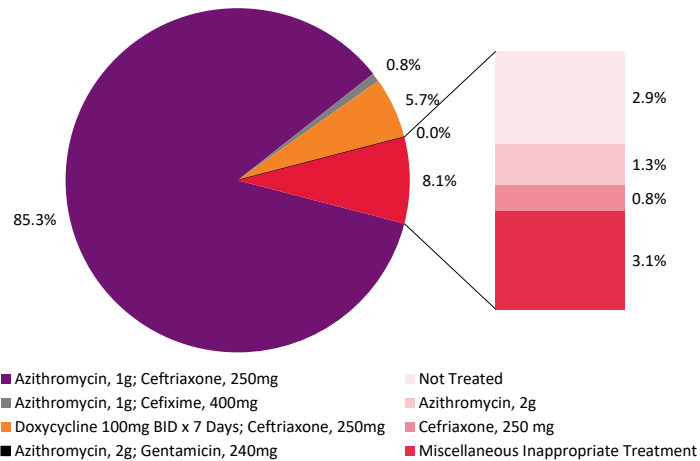
Early syphilis rates in Utah have also increased dramatically in the past few years. Reported cases of primary/secondary syphilis increased from 0.5 cases per 100,000 in 2011 to 3.0 per 100,000 in 2016 and reported cases of early latent syphilis increased from 0.4 per 100,000 to 1.9 per 100,000 (Figure 3). In 2016, 100% of the reported cases of early syphilis (primary/secondary/early latent) were treated with a recommended treatment. Further analysis on risk factors for disease acquisition is ongoing.

Updated data on all reported cases of STDs in Utah through 2015 are available at <http://health.utah.gov/epi/data/stdsurveillance/>.

For information on free and low cost STD testing locations, visit <http://health.utah.gov/epi/testing/>.

Frequency of Gonorrhea Treatment

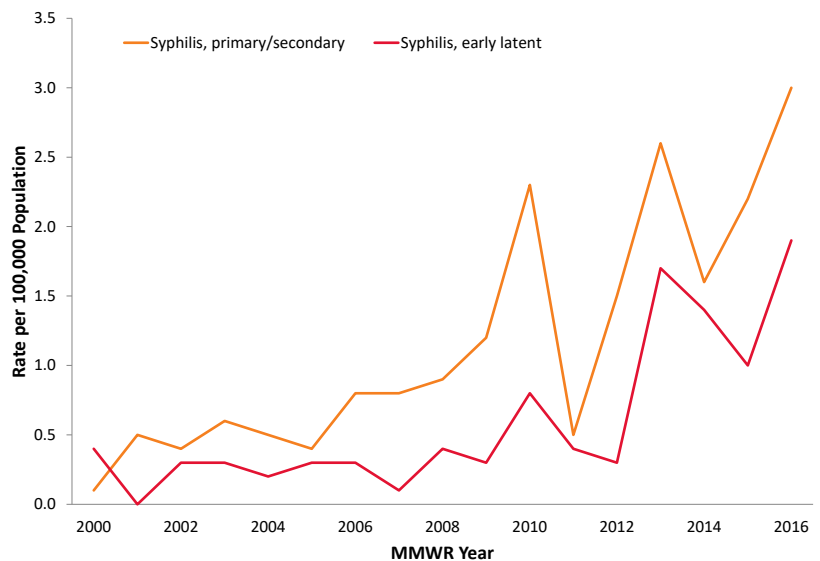
Figure 2. Frequency of treatment for *Neisseria gonorrhoeae*, Utah, 2015



Note: Red shading indicates inappropriate treatment.
Source: Bureau of Epidemiology, Utah Department of Health.

Early Syphilis Rates

Figure 3. Syphilis rates per 100,000 population by stage and MMWR year, Utah, 2000-2016



Source: Bureau of Epidemiology, Utah Department of Health.

For additional information about this topic, contact Scott White, 801-538-6288, swhite1@utah.gov; or the Office of Public Health Assessment, Utah Department of Health, (801) 538-9191, email: chdata@utah.gov.

UDOH ANNOUNCEMENT:

The Office of Health Care Statistics released the annual update of Clinic Quality Comparisons data this month. These data include three new quality measures related to asthma, breast cancer, and utilization of imaging and are available to the public on OpenData: <https://opendata.utah.gov/Health/2015-Clinic-Quality-Comparisons-for-Clinics-with-F/35s3-nmpm>.

Breaking News, August 2017

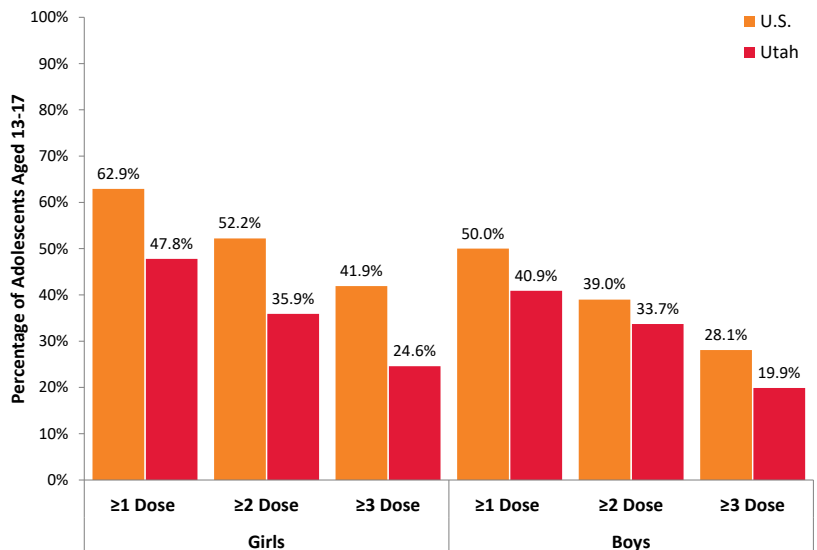
Human Papillomavirus (HPV) Vaccination

According to the Centers for Disease Control and Prevention (CDC), the HPV vaccination can prevent an estimated 28,500 new cancers per year in the U.S. The HPV vaccine provides protection from six types of cancer caused by the HPV infection. Unfortunately, rates indicate that Utah remains among the least vaccinated states in the country. According to the CDC, Utah girls ranked 49th and Utah boys ranked 41st in the nation in 2015 for receiving the full dosage of the HPV vaccine (a complete HPV vaccination series consists of three doses). The accompanying graph shows 2015 National Immunization Survey rates for Utah girls and boys aged 13–17.

In May 2017, the “Growing Up” HPV campaign was launched. The “Growing Up” campaign is a collaborative effort between the Utah Department of Health Immunization program, Cancer Control and Prevention program, and the Salt Lake County Health Department. The purpose of the campaign

is to raise awareness and encourage parents of Utah adolescents to get the HPV vaccine. The campaign will reach Utah parents primarily through social media and traditional/Pandora radio ads. Since the campaign’s launch, there have been 686,000 social media impressions. For more information on the campaign and the HPV vaccine, visit www.cancerutah.org/hpv.

2015 HPV Vaccination Rates by Sex, Utah and U.S.



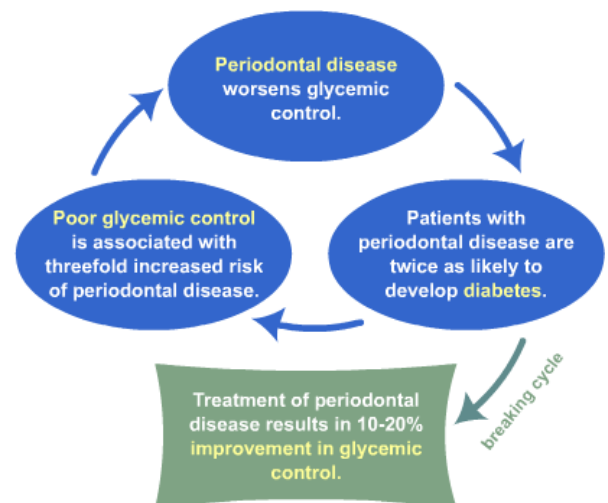
Source: 2015 Adolescent Human Papillomavirus (HPV) Vaccination Coverage Report, National Center for Immunization and Respiratory Diseases. Accessed July 18, 2017 at <https://www.cdc.gov/vaccines/imz-managers/coverage/teenvaxview/data-reports/hpv/reports/2015.html>.

Community Health Spotlight, August 2017

Oral Health and Its Impact on Diabetes

Yes, the mouth is the window to the body! According to a recent report on diabetes, almost 26 million Americans have diabetes.¹ Although diabetes can cause many problems with our health, it can also wreak havoc with our oral health as well. Because diabetes reduces the body’s resistance for infections, people with diabetes are two to three times more likely to develop periodontal (gum) disease. The prevalence of periodontal disease is more common and more aggressive in those with diabetes. There is a two-way relationship between A1C levels and periodontal disease. If there is inflammation in the body and mouth, this can significantly affect an individual’s A1C levels.

The good news is that research shows the treatment of periodontal disease can decrease inflammation and lower the A1C levels and other inflammatory responses in the body. In addition, treatment of periodontal disease is associated with lower total healthcare cost and lower total Type 2 diabetes healthcare cost.² The management of diabetes is most successful when there is a multi-disciplinary team involved. An oral health care professional is essential to maintaining overall health with diabetes.



1. Centers for Disease Control and Prevention. Working Together to Manage Diabetes: A Guide for Pharmacists, Podiatrists, Optometrists, and Dental Professionals. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service, Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion, Jan 2014. <https://www.cdc.gov/diabetes/ndep/toolkits/ppod.html>

2. <http://onlinelibrary.wiley.com/doi/10.1002/hec.3316/abstract?userIsAuthenti> and <http://www.ada.org/en/publications/ada-news/2016-archive/january/study-examines-effect-of-periodontal-treatment-on-health-care-costs?nav=news>.

Monthly Health Indicators Report

(Data Through June 2017)

Monthly Report of Notifiable Diseases, June 2017	Current Month # Cases	Current Month # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
Campylobacteriosis (<i>Campylobacter</i>)	56	68	288	233	1.2
Shiga toxin-producing <i>Escherichia coli</i> (<i>E. coli</i>)	13	8	31	26	1.2
Hepatitis A (infectious hepatitis)	3	1	8	5	1.7
Hepatitis B, acute infections (serum hepatitis)	0	1	4	4	1.0
Meningococcal Disease	0	1	1	2	0.7
Pertussis (Whooping Cough)	20	89	215	484	0.4
Salmonellosis (<i>Salmonella</i>)	61	31	201	162	1.2
Shigellosis (<i>Shigella</i>)	0	4	16	19	1.0
Varicella (Chickenpox)	12	9	114	142	0.5
West Nile (Human Cases)	0	0	0	0	--

Quarterly Report of Notifiable Diseases, 2nd Qtr 2017	Current Quarter # Cases	Current Quarter # Expected Cases (5-yr average)	# Cases YTD	# Expected YTD (5-yr average)	YTD Standard Morbidity Ratio (obs/exp)
HIV/AIDS†	30	36	74	77	1.0
Chlamydia	2,353	1,981	4,984	4,106	1.2
Gonorrhea	627	273	1,191	569	2.1
Syphilis	33	17	57	32	1.8
Tuberculosis	8	8	19	14	1.3

Medicaid Expenditures (in Millions) for the Month of June 2017	Current Month	Expected/Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	\$ 7.8	\$ 8.2	\$ 152.6	\$ 154.7	\$ (2.1)
Inpatient Hospital	\$ 1.6	\$ 1.8	\$ 102.1	\$ 105.3	\$ (3.2)
Outpatient Hospital	\$ 3.5	\$ 4.3	\$ 49.2	\$ 49.9	\$ (0.8)
Long Term Care	\$ 20.4	\$ 20.1	\$ 255.4	\$ 256.1	\$ (0.7)
Pharmacy	\$ 9.4	\$ 11.2	\$ 95.0	\$ 98.9	\$ (3.8)
Physician/Osteo Services	\$ 3.6	\$ 4.7	\$ 42.1	\$ 47.3	\$ (5.2)
TOTAL MEDICAID	\$ 112.5	\$ 111.0	\$ 2,459.9	\$ 2,462.2	\$ (2.3)

Program Enrollment for the Month of June 2017	Current Month	Previous Month	% Change* From Previous Month	1 Year Ago	% Change* From 1 Year Ago
Medicaid	283,969	285,526	-0.5%	293,058	-3.1%
PCN (Primary Care Network)	13,344	13,608	-1.9%	17,162	-22.2%
CHIP (Children's Health Ins. Plan)	19,248	19,333	-0.4%	18,034	+6.7%

Health Care System Measures	Annual Visits			Annual Charges	
	Number of Events	Rate per 100 Population	% Change* From Previous Year	Total Charges in Millions	% Change* From Previous Year
Overall Hospitalizations (2014)	281,302	8.9%	-0.8%	\$ 7,281.6	+11.8%
Non-maternity Hospitalizations (2014)	177,881	5.5%	-1.1%	\$ 6,200.8	+11.6%
Emergency Department Encounters (2014)	710,266	22.9%	+2.6%	\$ 1,760.5	+13.2%
Outpatient Surgery (2013)	404,303	13.1%	+7.3%	\$ 2,167.9	+11.5%

Annual Community Health Measures	Current Data Year	Number Affected	Percent/Rate	% Change* From Previous Year	State Rank§ (1 is best)
Obesity (Adults 18+)	2015	510,400	24.5%	-4.7%	8 (2015)
Cigarette Smoking (Adults 18+)	2015	189,600	9.1%	-6.2%	1 (2015)
Influenza Immunization (Adults 65+)	2015	181,600	59.0%	+1.9%	36 (2015)
Health Insurance Coverage (Uninsured)	2015	263,600	8.8%	-14.6%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2015	247	8.2 / 100,000	+3.7%	19 (2015)
Poisoning Deaths	2015	697	23.3 / 100,000	+6.8%	43 (2015)
Suicide Deaths	2015	609	20.3 / 100,000	+7.8%	47 (2015)
Diabetes Prevalence (Adults 18+)	2015	145,800	7.0%	-1.4%	10 (2015)
Poor Mental Health (Adults 18+)	2015	333,300	16.0%	+0.6%	18 (2015)
Coronary Heart Disease Deaths	2015	1,619	54.0 / 100,000	+1.0%	2 (2015)
All Cancer Deaths	2015	3,091	103.2 / 100,000	+0.1%	1 (2015)
Stroke Deaths	2015	887	29.6 / 100,000	+2.0%	18 (2015)
Births to Adolescents (Ages 15-17)	2015	489	6.9 / 1,000	-11.7%	13 (2015)
Early Prenatal Care	2015	38,803	76.4%	+0.2%	n/a
Infant Mortality	2015	257	5.1 / 1,000	+3.2%	13 (2014)
Childhood Immunization (4:3:1:3:3:1)	2015	37,400	73.6%	-1.3%	35 (2015)

† Diagnosed HIV infections, regardless of AIDS diagnosis.

* Relative percent change. Percent change could be due to random variation.

§ State rank based on age-adjusted rates where applicable.

Notes: Data for notifiable diseases are preliminary and subject to change upon the completion of ongoing disease investigations. Active surveillance has ended for influenza until the 2017-2018 season.