

# Utah Health Status Update: Top 10 Communicable Diseases

October 2016

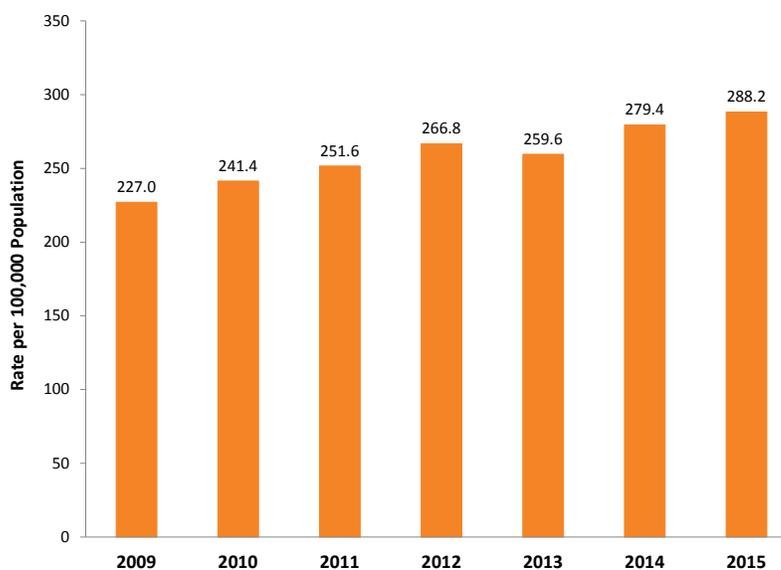
The Utah Department of Health (UDOH) monitors more than 75 communicable diseases in the state of Utah through daily surveillance activities. Activities include ongoing systematic collection, analysis, and interpretation of data collected from local health departments, laboratories, healthcare providers, hospitals, and other healthcare facilities. Surveillance data are used to monitor the frequency and distribution of communicable diseases in Utah; examine the source causes of morbidity and mortality associated with these diseases; direct the development, implementation, and evaluation of interventions; and project future trends. The *Top 10 Communicable Diseases Report* is one of the annual reports prepared by the Disease Response, Evaluation, Analysis, and Monitoring (DREAM) Program using surveillance data. The report lists communi-

cable diseases with the highest incidence rates in Utah and is available at [http://health.utah.gov/epi/data/topdiseases/2015\\_Top\\_10.pdf](http://health.utah.gov/epi/data/topdiseases/2015_Top_10.pdf).

*Chlamydia trachomatis* infection, a common sexually transmitted disease, continued to be the leading reportable communicable disease in Utah and the United States. In 2015, 8,636 cases of chlamydia were reported to UDOH, an increase of 3.2% compared to 2014. In 2015, the chlamydia

## Chlamydia Incidence Rates by Year

Figure 1. Incident rate per 100,000 population of chlamydia, Utah, 2009–2015



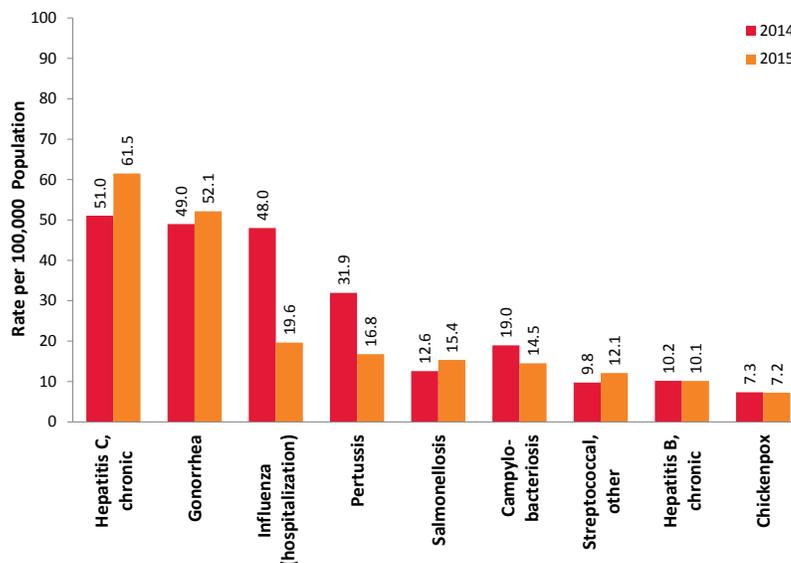
Source: Utah Department of Health Bureau of Epidemiology

### KEY FINDINGS

- In 2015, incidence rates were higher compared to 2014 for the following communicable diseases: chlamydia, chronic hepatitis C, gonorrhea, salmonellosis, and invasive streptococcal disease.
- *Chlamydia trachomatis* infection, a common sexually transmitted disease, continued to be the leading reportable communicable disease in Utah and the United States.
- In addition to chlamydia, the incidence of gonorrhea and chronic hepatitis C have shown an increasing trend since 2009.
- In 2015, a total of 460 cases of salmonellosis (15.4 cases per 100,000 population per year) were reported in Utah, an increase of more than 22% compared to 2014. In Utah, 76 cases of salmonellosis were linked to a nationwide outbreak caused by contaminated cucumbers, representing more than 16% of all salmonellosis cases reported in Utah in 2015.

## Other Top Communicable Disease Incidence Rates

Figure 2. Other top communicable diseases incidence rates per 100,000 population, Utah, 2014 and 2015



Source: Utah Department of Health Bureau of Epidemiology

rate in Utah increased approximately 27% as compared to 2009, from a rate of 227.0 cases per 100,000 population per year in 2009, to 288.3 cases per 100,000 population per year in 2015 (Figure 1).

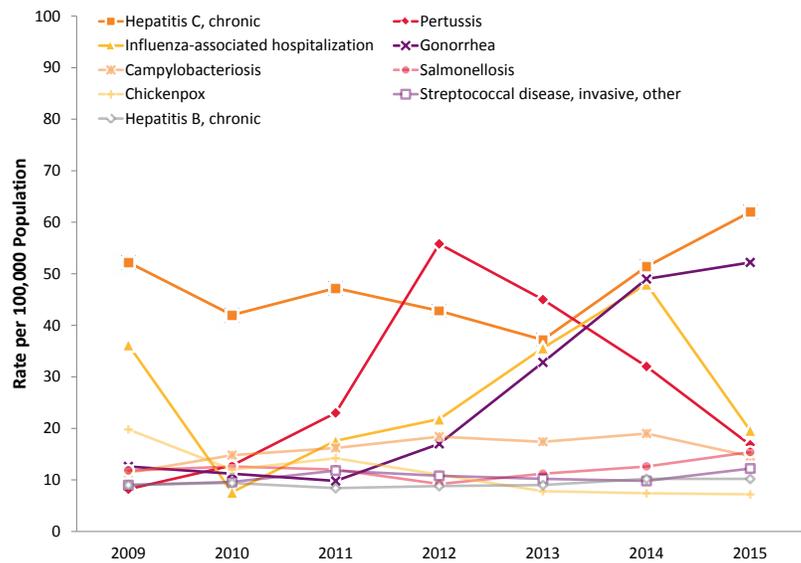
In 2015, incidence rates were also higher compared to 2014 for the following communicable diseases: chronic hepatitis C, gonorrhea, salmonellosis, and invasive streptococcal disease (Figure 2). Salmonellosis, one of the most common foodborne illnesses in Utah and the United States, is a bacterial infection usually acquired through contaminated food or exposure to live animals (especially reptiles and poultry). Most cases of salmonellosis present as a self-limited gastrointestinal illness, however, in some cases the bacteria invade the bloodstream, resulting in sepsis or other invasive disease. In 2015, a total of 460 cases of salmonellosis (15.4 cases per 100,000 population per year) were reported in Utah, an increase of more than 22% compared to 2014. This increase was primarily due to a large, nationwide outbreak of *Salmonella* Poona caused by contaminated cucumbers. In Utah, 76 cases of salmonellosis were linked to the outbreak, representing more than 16% of all salmonellosis cases reported in Utah in 2015.

In addition to chlamydia, the incidence of gonorrhea and chronic hepatitis C have shown an increasing trend since 2009 (Figure 3). The increase may be a result of increased screening efforts, use of increasingly sensitive diagnostic tests, increased reporting by providers and laboratories, and/or improved information systems for reporting. Investigation into the reasons for this sustained increase is ongoing.

Looking at diseases categorized into groups with similar transmission modes, in general, sexually transmitted diseases had the highest incidence rates with a 3.8% increase overall from 2014 to 2015. Similarly, slight changes in incidence rates were seen among vaccine-preventable diseases, foodborne diseases, and vector-borne diseases. Although the biggest incidence rate increase was found among healthcare-associated diseases, the overall infection rate was one of the lowest among all reportable disease groups. The “other” disease group, including bacterial and aseptic meningitis; group A, B, other, streptococcal diseases; and toxic shock syndromes, had an

## Other Top Communicable Diseases by Year

Figure 3. Incident rate per 100,000 population of other top communicable diseases by year, Utah, 2009–2015



Source: Utah Department of Health Bureau of Epidemiology

overall increase of nearly 25% in incidence rate. The reasons for this increase are still under investigation; however, most of the diseases in this category are only reportable in Utah. While interesting to look at rate differences seen in disease groups, aggregating disease counts and rates hinders understanding of trends in individual diseases. The 2015 Annual Communicable Diseases report, which compares the incidence rate for each individual reportable disease by year in Utah, and also includes comparison to national rates, will be published in December 2016 at <http://health.utah.gov/epi/data/>.

For more information included in this report, visit <http://health.utah.gov/epi/>.

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### UDOH ANNOUNCEMENT:

The incident command system is a tool used to effectively respond to public health emergencies. Incident command is critical to coordinate an effective response during disasters and emergencies. For resources, visit <http://training.fema.gov/emiweb/is/icsresource/index.htm>.

## Breaking News, October 2016

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### Severe Respiratory Disease Outbreak in Southeast Utah

In early 2016, the Southeast Utah Health Department identified a cluster of individuals with severe respiratory disease symptoms. Each of the individuals had visited a local emergency room and received rapid influenza virus testing; all tested negative. The rural hospital did not offer a comprehensive virus identification test; therefore, additional testing at the Utah Public Health Laboratory (UPHL) was performed. Human metapneumovirus was identified in all three samples submitted to UPHL. Coincidentally, Influenza A virus was also identified in one sample, but the subtype was unable to be determined. The sample was submitted to CDC for further testing since this could indicate emergence of a novel influenza virus.

The testing at CDC led to the identification of a minor mutation in the 2009 pandemic H1N1 influenza virus. Two samples of untypeable Influenza A from other areas of Utah were concurrently sent to CDC for further investigation. After comprehensive testing at CDC, including whole genome sequencing, the mutation in the H1N1 virus was detected. Identifying this mutation required modification of testing reagents which necessitated CDC and all state laboratories updating their testing procedures.

While this situation was unique, it is important to remember this mutation was rare and that Influenza A, including 2009 pandemic H1N1, predominated during the 2015–2016 season. The efforts described here to track illness and to update the laboratory testing will help to improve detection of disease-causing influenza viruses during the upcoming 2016–2017 season.

## Community Health Indicators Spotlight, October 2016

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### Utah Access Monitoring Review Plan

On November 2, 2015, the Centers for Medicare and Medicaid Services (CMS) published a final rule calling for a data-driven process in which states will document adherence with the equal access provision section 1902(a)(30)(A) of the Social Security Act. The access rule details how states should monitor and report on access to care in their fee-for-service (FFS) Medicaid programs. It focuses primarily on what states must do to document their approach to monitoring access (particularly when payment changes are made), and to include input from members and providers in the review process.

In accordance with the rule, Utah Medicaid developed and submitted to CMS the Access Monitoring Review Plan (AMRP) on October 1, 2016. The plan measures access to care for five service categories provided to members under a FFS arrangement:

- Primary care services
- Physician specialist services
- Pre- and post-natal obstetric services, including labor and delivery
- Home health services
- Behavioral health

The plan also outlines a process for capturing additional feedback from both the member and provider communities. The process for collecting additional feedback from Medicaid members includes a call tracking system that will allow the Division of Medicaid and Health Financing at the Utah Department of Health to analyze potential access to care issues throughout the state.

A current version of the plan can be obtained on the Utah Medicaid website at <https://medicaid.utah.gov/uamrp-utah-access-monitoring-review-plan>.

# Monthly Health Indicators Report

(Data Through August 2016)

Monthly Report of Notifiable Diseases, August 2016	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> )	26	57	318	347	0.9
Shiga toxin-producing <i>Escherichia coli</i> ( <i>E. coli</i> )	12	28	45	75	0.6
Hepatitis A (infectious hepatitis)	0	0	7	6	1.3
Hepatitis B, acute infections (serum hepatitis)	0	1	0	7	0.0
Meningococcal Disease	0	0	2	4	0.5
Pertussis (Whooping Cough)	4	87	115	710	0.2
Salmonellosis ( <i>Salmonella</i> )	35	46	244	242	1.0
Shigellosis ( <i>Shigella</i> )	7	4	52	24	2.2
Varicella (Chickenpox)	9	12	157	176	0.9
West Nile (Human cases)	6	2	6	3	2.0

Quarterly Report of Notifiable Diseases, 2nd Qtr 2016	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†	26	27	63	57	1.1
Chlamydia	2,277	1,871	4,750	3,853	1.2
Gonorrhea	474	197	990	394	2.5
Syphilis	15	12	36	23	1.5
Tuberculosis	4	10	8	17	0.5

Medicaid Expenditures (in Millions) for the Month of August 2016	Current Month	Expected/Budgeted for Month	Fiscal YTD	Budgeted Fiscal YTD	Variance - over (under) budget
Capitated Mental Health	\$ 10.0	\$ 10.1	\$ 15.2	\$ 16.0	\$ (0.9)
Inpatient Hospital	\$ 15.0	\$ 15.8	\$ 15.7	\$ 16.8	\$ (1.1)
Outpatient Hospital	\$ 4.3	\$ 3.8	\$ 4.8	\$ 5.6	\$ (0.8)
Long Term Care	\$ 18.9	\$ 20.2	\$ 24.9	\$ 26.7	\$ (1.8)
Pharmacy	\$ 11.3	\$ 11.2	\$ 17.4	\$ 18.0	\$ (0.5)
Physician/Osteo Services	\$ 3.7	\$ 2.7	\$ 4.3	\$ 4.6	\$ (0.2)
TOTAL MEDICAID	\$ 282.5	\$ 281.7	\$ 403.0	\$ 411.7	\$ (8.7)

Program Enrollment for the Month of August 2016	Current Month	Previous Month	% Change* From Previous Month	1 Year Ago	% Change* From 1 Year Ago
Medicaid	292,186	292,220	-0.0%	289,866	+0.8%
PCN (Primary Care Network)	16,167	16,604	-2.6%	12,217	+32.3%
CHIP (Children's Health Ins. Plan)	18,371	18,199	+0.9%	16,286	+12.8%

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)	2014	303,100	10.3%	-11.2%	n/a
Motor Vehicle Traffic Crash Injury Deaths	2014	234	8.0 / 100,000	+20.2%	17 (2014)
Poisoning Deaths	2014	641	21.8 / 100,000	+0.4%	45 (2014)
Suicide Deaths	2014	555	18.9 / 100,000	-4.0%	41 (2014)
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	2014	1,574	53.5 / 100,000	+2.5%	3 (2014)
All Cancer Deaths	2014	3,033	103.1 / 100,000	+1.0%	1 (2014)
Stroke Deaths	2014	854	29.0 / 100,000	+1.4%	31 (2014)
Births to Adolescents (Ages 15-17)	2014	537	7.9 / 1,000	-8.8%	12 (2014)
Early Prenatal Care	2014	39,005	76.2%	-0.2%	n/a
Infant Mortality	2014	251	4.9 / 1,000	-4.7%	13 (2013)
Childhood Immunization (4:3:1:3:3:1)	2014	36,700	74.6%	n/a#	24 (2014)

† 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.

# In 2014, NIS analysis for the complete 4:3:1:3:3:1 series was updated to provide a more accurate assessment of Haemophilus influenzae type B vaccination. Due to this change, the 2014 results for 4:3:1:3:3:1 coverage are not comparable to prior years.

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 2016–2017 season.