



**COMMUNICABLE DISEASE  
ANNUAL REPORT  
UTAH  
2013**



UTAH DEPARTMENT OF  
**HEALTH**  
Bureau of Epidemiology

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## Preface

The *Communicable Disease Annual Report – Utah, 2013* contains data for Utah's reportable diseases and conditions for 2013. The data reported are collected from Utah's local health departments (LHDs), laboratories, healthcare providers, hospitals, and other healthcare facilities. The Utah Department of Health (UDOH) tracks more than 75 communicable diseases in Utah annually. Each case of these diseases is investigated in collaboration with Utah's 12 LHDs.

The Highlights section presents noteworthy epidemiologic information from 2013 for selected diseases and additional information to aid in the interpretation of surveillance data. Incidence data for reportable conditions occurring during 2013 are presented in Table 1. The number of cases reported, incidence rates, comparisons to national data, and historical 5-year averages in Utah are also provided. In addition, a summary of cases of reportable disease by LHD is presented in Table 2, and historical data are presented in Table 3. Cases are counted by the year the disease occurred as determined by the Morbidity and Mortality Weekly Report (MMWR) week assigned by the Centers for Disease Control and Prevention (CDC).<sup>1</sup>

## Background

A multi-disciplinary approach to communicable disease control has been established in Utah and includes prompt reporting, data analysis, data interpretation, case investigation, identification of common risk factors, treatment, and implementation of disease prevention interventions. The successes of medicine and public health have dramatically reduced the risk of illnesses, hospitalizations, and deaths due to infectious agents during the twentieth century. However, emergence of new diseases and the rapid spread of diseases globally, made possible by advances in transportation, trade, food production, and other factors, highlight the continual threat to health from infectious diseases. Attention to these threats, and cooperation among all health care providers, government agencies, and other entities that are partners in protecting the public's health, are crucial to maintaining and improving the health of Utah's citizens.<sup>2</sup>

The important role that disease surveillance plays in protecting the public's health has been expressed by the CDC as follows: "Case-reporting of reportable diseases at the local level protects the public's health by ensuring the proper identification and follow-up of cases. Public health workers ensure that persons who are already ill receive appropriate treatment; trace contacts who need vaccines, treatment, quarantine, or education; investigate and halt outbreaks; eliminate environmental hazards; and close premises where spread has occurred. Surveillance of notifiable conditions helps public health authorities monitor the effect of notifiable conditions, measure disease trends, assess the effectiveness of control and prevention measures, identify populations or geographic areas at high risk, allocate resources appropriately, formulate prevention strategies, and develop public health policies. Monitoring surveillance data enables public health authorities to detect sudden changes in disease occurrence and distribution, identify changes in agents and host factors, and detect changes in health-care practices."<sup>3</sup>

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<sup>1</sup>Centers for Disease Control and Prevention (2013). MMWR Weeks. Available at: [http://wwwn.cdc.gov/nndss/document/MMWR\\_week\\_overview.pdf](http://wwwn.cdc.gov/nndss/document/MMWR_week_overview.pdf)

<sup>2</sup>Utah Division of Administrative Rules (2014). Utah Administrative Code Rule R386-702, Communicable Disease Rule. Available at: <http://www.rules.utah.gov/publicat/code/r386/r386-702.htm>

<sup>3</sup>Centers for Disease and Prevention (2014). Summary of Notifiable Diseases – United States, 2012. *Morbidity and Mortality Weekly Report (MMWR)*, 61(53). Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6153a1.htm>

## Reportable Diseases, Emergency Illnesses, and Health Conditions in Utah, 2013\*

<i>Acinetobacter</i> species with resistance or intermediate resistance to carbapenems	<i>Klebsiella</i> species with resistance or intermediate resistance to carbapenems
Acquired Immunodeficiency Syndrome (AIDS)	Legionellosis
Adverse event resulting from smallpox vaccination	Listeriosis
Amebiasis	Lyme disease
Anthrax	Malaria
Arbovirus infection, including Saint Louis encephalitis and West Nile virus	Measles
Babesiosis	Meningitis (aseptic, bacterial, fungal, parasitic, protozoan, and viral)
Botulism	Meningococcal Disease
Brucellosis	Mumps
Campylobacteriosis	Norovirus
Chancroid	Pertussis (Whooping Cough)
Chickenpox	Plague
<i>Chlamydia trachomatis</i> infection	Poliomyelitis, paralytic
Cholera	Poliovirus infection, nonparalytic
Coccidioidomycosis	Psittacosis
Colorado tick fever	Q Fever
Creutzfeldt-Jacob disease and other transmissible human spongiform encephalopathies	Rabies, human and animal
Cryptosporidiosis	Relapsing fever, tick-borne and louse-borne
<i>Cyclospora</i> infection	Rubella
Dengue fever	Rubella, congenital syndrome
Diphtheria	Salmonellosis
Echinococcosis	Severe Acute Respiratory Syndrome (SARS)
Ehrlichiosis, human granulocytic, human monocytic, or unspecified	Shiga toxin-producing <i>Escherichia coli</i> (STEC) infection
Encephalitis	Shigellosis
<i>Escherichia coli</i> with resistance or intermediate resistance to carbapenems	Smallpox
Giardiasis	Spotted fever rickettsioses, including Rocky Mountain spotted fever
Gonorrhea	<i>Staphylococcus aureus</i> with resistance (VRSA) or Intermediate resistance (VISA) to vancomycin
<i>Haemophilus influenzae</i> , invasive disease	Streptococcal disease, invasive, including <i>Streptococcus pneumoniae</i> and Groups A, B, C, and G streptococci isolated from a normally sterile site
Hansen's disease (Leprosy)	Syphilis, all stages and congenital
Hantavirus pulmonary syndrome	Tetanus
Hemolytic uremic syndrome, post-diarrheal	Toxic-shock syndrome, staphylococcal or streptococcal
Hepatitis A	Trichinosis
Hepatitis B, cases and carriers	Tuberculosis
Hepatitis C, acute and chronic	Tularemia
Hepatitis, other viral	Typhoid, cases and carriers
Human Immunodeficiency Virus (HIV) infection	Vibriosis
Influenza-associated hospitalization	Viral hemorrhagic fevers
Influenza-associated pediatric death	Yellow fever

\*Disease reporting is mandated by state legislation and administrative code. This list reflects the diseases, illnesses, and conditions to be of concern to the public health and reportable as specified in the Utah Administrative Code Rule R386-702, and required or authorized by Section 26-6-6 and Title 26, Chapter 23b of the Utah Health Code for the year 2013. The list of reportable diseases and conditions in Utah is revised periodically. A disease might be added to the list as a new public health threat emerges, or a disease might be removed as its incidence declines.

## Highlights for 2013

The following are summaries for selected communicable diseases which are intended to highlight conditions that had notable incidence, outbreaks, or other factors.

### **Campylobacteriosis**

Campylobacteriosis is caused by the gram-negative bacterium *Campylobacter*, which is the most common cause of bacterial foodborne illness in the United States. In 2013, campylobacteriosis was the most commonly reported foodborne illness in Utah and the sixth most frequently reported illness overall. There were 413 cases reported in 2013, which exceeded the previous 5-year average of 377.2. This increase is due to outbreaks associated with raw milk consumption. Both nationally and in Utah, the highest rates of disease are seen in those four years of age and younger. Infection is characterized by acute onset of diarrhea, vomiting, abdominal pain, fever and malaise, although some people show no symptoms. Onset of symptoms occurs two to five days after exposure to contaminated food or drink and last on average one week. Common sources of exposure include improperly cooked poultry, untreated water, and unpasteurized (raw) milk.

### **Chlamydia**

*Chlamydia trachomatis* infection continues to be the most commonly reported communicable disease both nationally and in Utah. In 2013, chlamydia accounted for 51% of all reported diseases in Utah. This sexually transmitted disease primarily affects younger populations with the highest rates in persons age 15-24 years. However, rates have increased in older age groups compared to previous years indicating a need to direct prevention efforts toward a wide range of age groups. Chlamydia spreads easily through unprotected sexual contact. A majority of infected individuals experience no signs or symptoms, leaving testing as the only reliable means to know whether an individual is infected. Untreated chlamydial infections can result in infertility in both men and women. Additionally, women can pass the infection to their infants during childbirth resulting in pneumonia or neonatal ophthalmia.

### **Gonorrhea**

In 2013, gonorrhea was the fifth most commonly reported communicable disease reported in Utah and the second most reported disease in the United States. Starting in 2006, Utah's gonorrhea rate decreased annually to its lowest reported rate in 2011; however, the rate sharply increased in 2012 and continued its rise in 2013. From 2011 to 2013 the rate of gonorrhea increased 233%. Gonorrhea primarily affects younger age groups; and in 2013, the highest rates of gonorrhea were seen in those 20-34 years. Although rates in older populations are relatively low, they are increasing at a larger percentage. Consequently, prevention efforts should be directed to a wide range of age groups. In Utah, gonorrhea rates among males are consistently higher than among females. UDOH and LHDs are closely monitoring the increase in gonorrhea.

### **Pertussis ("Whooping Cough")**

Utah saw high numbers of pertussis in 2013. Pertussis was the second most frequently reported disease with 1,307 cases reported. Utah has an incidence rate larger than that seen nationally. Nationally, the incidence rate was 9.0 per 100,000 persons while Utah's incidence rate was 45.1 per 100,000. The majority of reported cases are seen in children with 72% of reported cases for 2013 in those 18 years and younger. Incidence rates were highest in infants less than 1 year of age and children between the ages of 5 and 14 years. Pertussis has been on the rise in Utah since 2009 with notable increases in the number of cases reported in 2011 and 2012. There are several factors that may be contributing to the increase of pertussis rates in recent years, including: actual increases in disease occurrence, improved laboratory tests, increased recognition by clinicians, the cyclical nature of pertussis peaking every 3-5 years, waning immunity of adults who received the booster vaccine (Tdap), and the higher risk of infection with pertussis in individuals who are not vaccinated (unvaccinated individuals have an eightfold greater risk of contracting the illness if exposed).

**Table 1. Frequency\* and incidence rate† of reportable diseases, Utah and United States, 2013**

Disease/Condition	2013 Count	Previous 5-year Average	Utah - 2013 Incidence	U.S. - 2013 Incidence <sup>§</sup>
<i>Acinetobacter</i> species with resistance or intermediate resistance to carbapenems**	42	U	1.5	**
Adverse event resulting from smallpox vaccination**	—	—	—	**
Amebiasis**	2	9.6	0.1	**
Anthrax	—	—	—	—
Arbovirus infection (not including West Nile, Dengue, or Yellow Fever)	—	—	—	0.04
Babesiosis	—	0.2	—	0.6
Botulism, Total	2	5.8	0.1	0.1
foodborne	—	1.6	—	—
infant	2	4.2	0.1	0.04
other(wound/unspecified)	—	—	—	—
Brucellosis	—	1.2	—	0.03
Campylobacteriosis**	413	377.2	14.2	**
Chancroid	—	—	—	—
Chickenpox	237	471.8	8.2	3.6
Chlamydia	7,542	6,710.0	260.0	443.0
Cholera	—	—	—	—
Coccidioidomycosis	44	41.2	1.5	3.0
Colorado tick fever**	—	0.6	—	**
Creutzfeldt-Jakob disease and other transmissible human spongiform encephalopathies**	—	1.8	—	**
Cryptosporidiosis	87	84.4	3.0	2.9
Cyclosporiasis	—	—	—	0.3
Dengue	8	3.2	0.3	0.3
Diphtheria	—	—	—	—
Echinococcosis**	1	0.2	0.03	**
Ehrlichiosis/Anaplasmosis	1	0.6	0.03	1.4
Encephalitis**	2	7.0	0.1	**
<i>Escherichia coli</i> species with resistance or intermediate resistance to carbapenems**	3	U	0.1	**
Giardiasis	230	306.2	7.9	4.8
Gonorrhea	951	377.0	32.8	105.2
HIV infection	105	109.4	3.6	††
<i>Haemophilus influenzae</i> , all ages, invasive disease	42	36.6	1.5	1.2
nonserotype B, age <5 years	8	U	0.3	0.1
serotype b, age <5 years	3	U	0.1	0.01
unknown serotype, age <5 years	2	U	0.1	0.1
Hansen's disease (Leprosy)	—	1.2	—	0.03
Hantavirus pulmonary syndrome	—	0.8	—	0.01
Hemolytic uremic syndrome, post-diarrheal	3	6.6	0.1	0.1
Hepatitis A	12	8.8	0.4	0.6
Hepatitis B, acute	5	10.0	0.2	1.0
Hepatitis B, chronic	24	U	0.8	††
Hepatitis C, acute	11	11.2	0.4	0.7

See footnotes on page 8.

**Table 1 (cont'd). Frequency\* and incidence rate† of reportable diseases, Utah and United States, 2013**

Disease/Condition	2013 Count	Previous 5-year Average	Utah - 2013 Incidence	U.S. - 2013 Incidence§
Hepatitis C, chronic	962	U	33.2	††
Hepatitis, other viral**	1	1.4	0.03	**
Influenza-associated hospitalization**	1,077	669.2	37.1	**
Influenza-associated pediatric mortality	5	1.4	0.2	0.1
<i>Klebsiella</i> species with resistance or intermediate resistance to carbapenems**	2	U	0.1	**
Legionellosis	22	26.4	0.8	1.6
Listeriosis	3	2.8	0.1	0.2
Lyme disease	16	7.6	0.6	11.5
Malaria	7	6.4	0.2	0.1
Measles	—	2.8	—	0.1
Meningitis, aseptic**	38	69.6	1.3	**
Meningitis, bacterial, other**	25	17.8	0.9	**
Meningitis, viral**	25	45.6	0.9	**
Meningococcal disease ( <i>Neisseria meningitidis</i> )	9	5.6	0.3	0.2
Mumps	2	2.6	0.1	0.2
Norovirus infection**	98	38.0	3.4	**
Pertussis	1,307	600.6	45.1	9.0
Plague	—	0.2	—	—
Poliomyelitis, paralytic	—	—	—	—
Poliovirus infection, nonparalytic	—	—	—	—
Psittacosis	—	—	—	—
Q fever	3	—	0.1	0.1
Rabies, animal	12	11.8	0.4	1.3
Rabies, human	—	—	—	—
Relapsing fever**	—	0.8	—	**
Rubella	—	—	—	—
Rubella, congenital syndrome	—	—	—	—
Salmonellosis	322	328.0	11.1	16.0
Severe Acute Respiratory Syndrome (SARS)	—	—	—	—
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	83	115.2	2.9	2.1
Shigellosis	25	41	0.9	4.0
Smallpox	—	—	—	—
Spotted Fever Rickettsiosis (Rocky Mountain Spotted Fever)	7	5.4	0.2	1.1
Streptococcal disease, invasive, group A**	120	87.8	4.1	**
Streptococcal disease, invasive, group B**	129	97.8	4.5	**
Streptococcal disease, invasive, other**	295	290.0	10.2	**
<i>Streptococcus pneumoniae</i> , invasive disease	204	228.0	7.0	5.4
age <5 years	25	U	0.9	0.4
Syphilis, all stages	172	79.4	5.9	17.9
primary & secondary	74	35.4	2.6	5.5
early latent	47	10.8	1.6	††
late latent	51	33.0	1.8	††
congenital	—	0.2	—	0.1

See footnotes on page 8.

**Table 1 (cont'd). Frequency\* and incidence rate† of reportable diseases, Utah and United States, 2013**

Disease/Condition	2013 Count	Previous 5-year Average	Utah - 2013 Incidence	U.S. - 2013 Incidence§
<b>Tetanus</b>	1	0.2	0.03	0.01
<b>Toxic-shock syndrome (staphylococcal or streptococcal)</b>	12	17.6	0.4	0.1
<b>Trichinosis</b>	—	—	—	0.01
<b>Tuberculosis, active</b>	33	31.4	1.1	3.0
<b>Tularemia</b>	2	2.6	0.1	0.1
<b>Typhoid fever</b>	3	1.2	0.1	0.1
<b>Vancomycin-intermediate <i>Staphylococcus aureus</i> (VISA)</b>	—	0.4	—	0.1
<b>Vancomycin-resistant <i>Staphylococcus aureus</i> (VRSA)</b>	—	—	—	—
<b>Vibriosis</b>	2	0.8	0.1	0.4
<b>Viral hemorrhagic fevers</b>	—	—	—	—
<b>West Nile virus, total</b>	7	7.6	0.2	0.8
neuroinvasive disease	4	2.4	0.1	0.4
nonneuroinvasive disease	3	5.2	0.1	0.4
<b>Yellow fever</b>	—	—	—	—

\* 2013 frequency counts were determined using print criteria outlined in the Centers for Disease Control and Prevention (CDC) *Nationally Notifiable Diseases and Other Conditions of Public Health Importance*, 2013, and represent totals reported to the Utah Department of Health as of October 20, 2014.

† Per 100,000 population. Utah population estimates obtained from Utah's Indicator-Based Information System for Public Health on 10/09/2014. Available at: [ibis.health.utah.gov](http://ibis.health.utah.gov).

§ U.S. incidence based on case counts and population estimates found in the CDC *Final 2013 Reports of Nationally Notifiable Infectious Diseases*. MMWR Weekly, 63(32); 702-715. Available at: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6332a6.htm>.

\*\* Not a nationally notifiable disease/condition.

†† National incidence data for 2013 not currently available as of publication of this report.

U: Unavailable.

—: No reported cases



**Table 2. Frequency\* and incidence rate† of reportable diseases by local health district, Utah, 2013**

Disease/Condition	Bear River		Central		Davis Co		Salt Lake Co		Southeastern		Southwest		Summit Co	
	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)
<i>Acinetobacter</i> species with resistance or intermediate resistance to carbapenems	—	—	—	—	5	1.6	24	2.2	—	—	2	0.9	—	—
Amebiasis	—	—	—	—	1	0.3	1	0.1	—	—	—	—	—	—
Botulism, Total	—	—	—	—	—	—	2	0.2	—	—	—	—	—	—
infant	—	—	—	—	—	—	2	0.2	—	—	—	—	—	—
Campylobacteriosis	45	26.5	19	24.9	33	10.3	141	13.1	3	5.4	28	13.1	8	20.8
Chickenpox	2	1.2	11	14.4	40	12.4	78	7.2	3	5.4	6	2.8	3	7.8
Chlamydia	251	147.7	93	121.8	891	276.6	3,808	352.7	170	303.2	382	179.0	73	189.7
Coccidioidomycosis	—	—	1	1.3	1	0.3	9	0.8	—	—	25	11.7	—	—
Cryptosporidiosis	1	0.6	—	—	30	9.3	17	1.6	—	—	1	0.5	—	—
Dengue	—	—	—	—	1	0.3	—	—	—	—	—	—	1	2.6
Echinococcosis	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ehrlichiosis/Anaplasmosis	—	—	—	—	—	—	1	0.1	—	—	—	—	—	—
Encephalitis	—	—	1	1.3	—	—	1	0.1	—	—	—	—	—	—
<i>Escherichia coli</i> with resistance or intermediate resistance to carbapenems	—	—	—	—	2	0.6	1	0.1	—	—	—	—	—	—
Giardiasis	9	5.3	3	3.9	26	8.1	121	11.2	7	12.5	10	4.7	2	5.2
Gonorrhea	7	4.1	3	3.9	64	19.9	683	63.3	7	12.5	16	7.5	5	13.0
HIV infection	3	1.8	—	—	5	1.6	73	6.8	2	3.6	2	0.9	1	2.6
<i>Haemophilus influenzae</i> , all ages, invasive disease	3	1.8	1	1.3	3	0.9	15	1.4	1	1.8	3	1.4	1	2.6
nonserotype B, age <5 years	2	1.2	—	—	1	0.3	1	0.1	—	—	—	—	—	—
serotype b, age <5 years	—	—	—	—	—	—	1	0.1	—	—	—	—	—	—
unknown serotype, age <5 years	—	—	—	—	1	0.3	—	—	—	—	—	—	—	—
Hemolytic uremic syndrome, post-diarrheal	—	—	—	—	—	—	2	0.2	—	—	—	—	—	—
Hepatitis A	—	—	—	—	3	0.9	3	0.3	—	—	4	1.9	—	—
Hepatitis B, acute	—	—	—	—	—	—	4	0.4	—	—	—	—	—	—
Hepatitis B, chronic	—	—	—	—	2	0.6	18	1.6	—	—	1	0.5	—	—
Hepatitis C, acute	—	—	—	—	1	0.3	4	0.4	—	—	—	—	—	—
Hepatitis C, chronic	26	15.3	17	22.3	74	23.0	436	40.4	25	44.6	70	32.8	7	18.2
Hepatitis, other viral	—	—	—	—	—	—	1	0.1	—	—	—	—	—	—
Influenza-associated hospitalization	39	22.9	36	47.2	69	21.4	539	49.9	5	8.9	90	42.2	12	31.2
Influenza-associated pediatric mortality	—	—	—	—	—	—	—	—	1	1.8	—	—	—	—
<i>Klebsiella</i> species with resistance or intermediate resistance to carbapenems	—	—	—	—	1	0.3	—	—	—	—	—	—	—	—
Legionellosis	—	—	—	—	1	0.3	13	1.2	1	1.8	2	0.9	1	2.6
Listeriosis	—	—	—	—	2	0.6	1	0.1	—	—	—	—	—	—
Lyme disease	—	—	—	—	2	0.6	9	0.8	—	—	—	—	—	—
Malaria	1	0.6	—	—	—	—	4	0.4	—	—	—	—	—	—
Meningitis, aseptic	—	—	—	—	7	2.2	13	1.2	—	—	3	1.4	1	2.6
Meningitis, bacterial, other	2	1.2	1	1.3	2	0.6	13	1.2	—	—	—	—	—	—
Meningitis, viral	—	—	—	—	2	0.6	15	1.4	—	—	3	1.4	—	—

See footnotes on page 12.

**Table 2 (cont'd). Frequency\* and incidence rate† of reportable diseases by local health district, Utah, 2013**

Disease/Condition	Tooele Co		TriCounty		Utah Co		Wasatch Co		Weber-Morgan		Unknown	Total
	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)		
<i>Acinetobacter</i> species with resistance or intermediate resistance to carbapenems	1	1.7	—	—	3	0.5	—	—	6	2.4	1	42
Amebiasis	—	—	—	—	—	—	—	—	—	—	—	2
Botulism, Total	—	—	—	—	—	—	—	—	—	—	—	2
infant	—	—	—	—	—	—	—	—	—	—	—	2
Campylobacteriosis	7	11.5	8	14.0	59	10.7	8	30.3	54	21.7	—	413
Chickenpox	—	—	4	7.0	51	9.2	2	7.6	37	14.9	—	237
Chlamydia	141	232.1	113	198.3	780	141.3	39	147.5	801	322.1	—	7,542
Coccidioidomycosis	—	—	2	3.5	4	0.7	—	—	2	0.8	—	44
Cryptosporidiosis	2	3.3	8	14.0	15	2.7	—	—	13	5.2	—	87
Dengue	—	—	1	1.8	3	0.5	—	—	2	0.8	—	8
Echinococcosis	—	—	—	—	—	—	—	—	1	0.4	—	1
Ehrlichiosis/Anaplasmosis	—	—	—	—	—	—	—	—	—	—	—	1
Encephalitis	—	—	—	—	—	—	—	—	—	—	—	2
<i>Escherichia coli</i> with resistance or intermediate resistance to carbapenems	—	—	—	—	—	—	—	—	—	—	—	3
Giardiasis	1	1.7	1	1.8	30	5.4	2	7.6	18	7.2	—	230
Gonorrhea	7	11.5	6	10.5	67	12.1	1	3.8	85	34.1	—	951
HIV infection	1	1.7	3	5.3	7	1.3	—	—	8	3.2	—	105
<i>Haemophilus influenzae</i> , all ages, invasive disease	—	—	—	—	9	1.6	—	—	6	2.4	—	42
nonserotype B, age <5 years	—	—	—	—	2	0.4	—	—	2	0.8	—	8
serotype b, age <5 years	—	—	—	—	2	0.4	—	—	—	—	—	3
unknown serotype, age <5 years	—	—	—	—	1	0.2	—	—	—	—	—	2
Hemolytic uremic syndrome, post-diarrheal	—	—	—	—	1	0.2	—	—	—	—	—	3
Hepatitis A	—	—	—	—	2	0.4	—	—	—	—	—	12
Hepatitis B, acute	—	—	—	—	1	0.2	—	—	—	—	—	5
Hepatitis B, chronic	—	—	—	—	2	0.4	—	—	1	0.4	—	24
Hepatitis C, acute	—	—	—	—	2	0.4	—	—	4	1.6	—	11
Hepatitis C, chronic	21	34.6	36	54.4	105	18.8	11	37.8	133	53.5	—	962
Hepatitis, other viral	—	—	—	—	—	—	—	—	—	—	—	1
Influenza-associated hospitalization	8	13.2	13	22.8	152	27.5	4	15.1	110	44.2	—	1,077
Influenza-associated pediatric mortality	—	—	—	—	2	0.4	—	—	2	0.8	—	5
<i>Klebsiella</i> species with resistance or intermediate resistance to carbapenems	—	—	—	—	1	0.2	—	—	—	—	—	2
Legionellosis	1	1.7	—	—	2	0.4	1	3.8	—	—	—	22
Listeriosis	—	—	—	—	—	—	—	—	—	—	—	3
Lyme disease	—	—	—	—	4	0.7	—	—	1	0.4	—	16
Malaria	2	3.3	—	—	—	—	—	—	—	—	—	7
Meningitis, aseptic	—	—	1	1.8	1	0.2	1	3.8	11	4.4	—	38
Meningitis, bacterial, other	—	—	—	—	2	0.4	—	—	5	2.0	—	25
Meningitis, viral	—	—	2	3.5	1	0.2	—	—	2	0.8	—	25

See footnotes on page 12.

**Table 2. Frequency\* and incidence rate† of reportable diseases by local health district, Utah, 2013**

Disease/Condition	Bear River		Central		Davis Co		Salt Lake Co		Southeastern		Southwest		Summit Co	
	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)
<b>Meningococcal disease (<i>Neisseria meningitidis</i>)</b>	1	0.6	1	1.3	1	0.3	5	0.5	—	—	—	—	—	—
<b>Mumps</b>	—	—	—	—	—	—	2	0.2	—	—	—	—	—	—
<b>Norovirus infection</b>	4	2.4	5	6.6	20	6.2	45	4.2	2	3.6	6	2.8	—	—
<b>Pertussis</b>	29	17.1	16	21.0	106	32.9	593	54.9	2	3.6	204	95.6	23	59.8
<b>Q fever</b>	—	—	—	—	—	—	1	0.1	—	—	1	0.5	—	—
<b>Rabies, animal</b>	—	—	2	2.6	—	—	1	0.1	—	—	2	0.9	—	—
<b>Salmonellosis</b>	15	8.8	12	15.7	48	14.9	113	10.5	1	1.8	24	11.3	5	13.0
<b>Shiga toxin-producing <i>Escherichia coli</i> (STEC)</b>	11	6.5	4	5.2	11	3.4	17	1.6	1	1.8	3	1.4	2	5.2
<b>Shigellosis</b>	2	1.2	—	—	1	0.3	15	1.4	2	3.6	2	0.9	—	—
<b>Spotted Fever Rickettsiosis</b>	—	—	—	—	1	0.3	1	0.1	1	1.8	—	—	—	—
<b>Streptococcal disease, invasive, group A</b>	—	—	2	2.6	9	2.8	58	5.4	1	1.8	7	3.3	—	—
<b>Streptococcal disease, invasive, group B</b>	3	1.8	2	2.6	18	5.6	44	4.1	1	1.8	15	7.0	—	—
<b>Streptococcal disease, invasive, other</b>	4	2.4	7	9.2	27	8.4	122	11.3	1	1.8	9	4.2	4	10.4
<b><i>Streptococcus pneumoniae</i>, invasive disease</b>	6	3.5	8	10.5	19	5.9	88	8.2	2	3.6	9	4.2	2	5.2
age <5 years	3	1.8	1	1.3	3	0.9	6	0.6	—	—	1	0.5	—	—
<b>Syphilis, all stages</b>	4	2.4	1	1.3	20	6.2	134	12.4	—	—	1	0.5	—	—
primary and secondary	—	—	—	—	6	1.9	64	5.9	—	—	—	—	—	—
early latent	4	2.4	1	1.3	4	1.2	36	3.3	—	—	—	—	—	—
late latent	—	—	—	—	10	3.1	34	3.2	—	—	1	0.5	—	—
<b>Tetanus</b>	—	—	—	—	—	—	—	—	1	1.8	—	—	—	—
<b>Toxic shock syndrome (staphylococcal or streptococcal)</b>	—	—	—	—	—	—	7	0.7	—	—	—	—	—	—
<b>Tuberculosis, active</b>	1	0.6	—	—	1	0.3	23	2.1	—	—	—	—	—	—
<b>Tularemia</b>	—	—	1	1.3	—	—	—	—	—	—	—	—	—	—
<b>Typhoid Fever</b>	—	—	—	—	—	—	2	0.2	—	—	—	—	—	—
<b>Vibriosis</b>	—	—	—	—	—	—	—	—	—	—	—	—	2	5.2
<b>West Nile virus, total</b>	—	—	—	—	—	—	1	0.1	—	—	4	1.9	—	—
neuroinvasive disease	—	—	—	—	—	—	1	0.1	—	—	2	0.9	—	—
nonneuroinvasive disease	—	—	—	—	—	—	—	—	—	—	2	0.9	—	—

See footnotes on page 12.

**Table 2 (cont'd). Frequency\* and incidence rate† of reportable diseases by local health district, Utah, 2013**

Disease/Condition	Tooele Co		TriCounty		Utah Co		Wasatch Co		Weber-Morgan		Unknown	Total
	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)		
Meningococcal disease ( <i>Neisseria meningitidis</i> )	—	—	—	—	1	0.2	—	—	—	—	—	9
Mumps	—	—	—	—	—	—	—	—	—	—	—	2
Norovirus infection	1	1.7	—	—	9	1.6	—	—	6	2.4	—	98
Pertussis	19	31.3	5	8.8	247	44.8	6	22.7	57	22.9	—	1,307
Q fever	—	—	—	—	—	—	1	3.8	—	—	—	3
Rabies, animal	—	—	—	—	5	0.9	—	—	1	0.4	1	12
Salmonellosis	3	4.9	9	15.8	63	11.4	3	11.4	27	10.9	—	323
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	2	3.3	5	8.8	19	3.4	—	—	8	3.2	—	83
Shigellosis	—	—	—	—	3	0.5	—	—	—	—	—	25
Spotted Fever Rickettsiosis	—	—	—	—	3	0.5	1	3.8	—	—	—	7
Streptococcal disease, invasive, group A	4	6.6	1	1.8	29	5.3	—	—	8	3.2	1	120
Streptococcal disease, invasive, group B	1	1.7	—	—	22	4.0	1	3.8	22	8.9	—	129
Streptococcal disease, invasive, other	4	6.6	5	8.8	79	14.3	1	3.8	31	12.5	1	295
<i>Streptococcus pneumoniae</i> , invasive disease	3	4.9	4	7.0	43	7.8	1	3.8	17	6.8	2	204
age <5 years	—	—	—	—	5	0.91	—	—	4	1.61	2	25
Syphilis, all stages	2	3.3	—	—	5	0.9	—	—	5	2.0	—	172
primary and secondary	1	1.7	—	—	—	—	—	—	3	1.2	—	74
early latent	1	1.7	—	—	1	0.2	—	—	—	—	—	47
late latent	—	—	—	—	4	0.7	—	—	2	0.8	—	51
Tetanus	—	—	—	—	—	—	—	—	—	—	—	1
Toxic shock syndrome (staphylococcal or streptococcal)	—	—	—	—	3	0.5	—	—	2	0.8	—	12
Tuberculosis, active	—	—	2	3.5	1	0.2	—	—	5	2.0	—	33
Tularemia	—	—	—	—	1	0.2	—	—	—	—	—	2
Typhoid Fever	—	—	—	—	—	—	1	3.8	—	—	—	3
Vibriosis	—	—	—	—	—	—	—	—	—	—	—	2
West Nile virus, total	—	—	—	—	—	—	—	—	2	0.8	—	7
neuroinvasive disease	—	—	—	—	—	—	—	—	1	0.4	—	4
nonneuroinvasive disease	—	—	—	—	—	—	—	—	1	0.4	—	3

\* 2013 frequency counts were determined using print criteria outlined in the Centers for Disease Control and Prevention Nationally Notifiable Diseases and Other Conditions of Public Health Importance 2013, and represent totals reported to the Utah Department of Health as of October 20, 2014.

† Per 100,000 population. Utah population estimates obtained from Utah's Indicator-Based Information System for Public Health on 10/09/2014. Available at: [ibis.health.utah.gov](http://ibis.health.utah.gov).

—: No reported cases

**Table 3. Historical communicable disease totals, Utah, 2003 - 2012**

Disease/Condition	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Amebiasis	8	6	13	6	4	11	6	11	12	8
Babesiosis	—	—	—	—	—	—	—	—	1	—
Botulism, Total	8	2	4	3	2	6	1	1	12	9
foodborne	3	—	—	—	—	—	—	—	8	—
infant	5	2	4	3	2	6	1	1	4	9
Brucellosis	3	1	1	—	—	1	—	—	3	2
Campylobacteriosis	269	329	302	271	327	372	311	347	405	451
Chancroid	2	1	—	—	—	—	—	—	—	—
Chickenpox	611	497	573	1,015	827	750	549	334	408	318
Chlamydia	3,840	3,858	4,602	5,090	5,720	6,019	6,145	6,690	7,080	7,616
Coccidioidomycosis	9	26	25	58	69	13	38	36	62	57
Colorado Tick Fever	1	1	3	—	3	1	1	—	—	1
Creutzfeldt-Jakob disease and other transmissible human spongiform encephalopathies	1	—	2	1	1	4	2	2	1	—
Cryptosporidiosis	19	6	25	17	1,952	46	42	72	66	196
Dengue	1	5	3	6	17	6	2	—	3	5
Echinococcosis	—	—	2	1	—	—	—	—	1	—
Ehrlichiosis/Anaplasmosis	—	—	—	—	—	—	1	—	1	1
Encephalitis	10	6	12	7	5	8	11	8	2	6
Giardiasis	382	378	423	455	470	360	312	313	260	286
Gonorrhea	410	602	727	888	821	477	341	310	277	480
<i>Haemophilus influenzae</i> , all ages, invasive disease	15	20	13	19	43	41	34	33	42	33
nonsertotype B, age <5 years	U	U	U	U	U	U	U	1	5	6
serotype b, age <5 years	U	U	U	U	U	U	U	3	2	2
unknown serotype, age <5 years	U	U	U	U	U	U	U	1	4	3
Hansen's disease (Leprosy)	1	1	—	1	—	2	1	1	1	1
Hantavirus pulmonary syndrome	3	1	—	—	—	1	1	—	—	2
Hemolytic uremic syndrome, post-diarrheal	4	—	1	15	8	9	7	7	5	5
Hepatitis A	40	36	22	13	9	13	7	12	8	4
Hepatitis B, acute	51	50	38	26	15	13	5	8	10	14
Hepatitis B, chronic	U	U	U	U	U	U	U	70	18	10
Hepatitis C, acute	—	8	4	11	6	11	7	10	11	17
Hepatitis C, chronic	U	U	U	U	U	U	U	1,118	1,120	972
Hepatitis, other viral	—	—	—	—	1	1	—	1	3	2
HIV infection *	125	127	123	126	118	129	128	87	94	109
Influenza-associated hospitalization†	U	U	577	217	286	508	1,531	209	490	608
Influenza-associated pediatric mortality†	U	U	U	U	3	—	5	1	—	1
Legionellosis	27	22	17	27	20	31	29	27	18	27
Listeriosis	2	2	5	2	3	2	2	3	5	2
Lyme disease	4	7	4	5	17	7	13	3	10	5
Malaria	6	8	6	19	12	5	4	3	6	14
Measles	—	—	1	—	—	—	—	—	13	1
Meningitis, aseptic	6	45	191	153	145	132	106	46	12	52
Meningitis, bacterial, other	13	6	13	37	15	16	7	13	45	8
Meningitis, viral	206	117	83	84	136	57	63	51	35	22
Meningococcal disease ( <i>Neisseria meningitidis</i> )	7	8	16	7	15	8	4	1	11	4
Mumps	5	2	7	5	2	3	4	3	—	3
Norovirus infection	18	6	27	11	28	8	14	48	73	47
Pertussis	144	302	665	741	373	186	226	352	648	1,591
Plague	—	—	—	1	—	—	1	—	—	—
Psittacosis	—	1	—	—	—	—	—	—	—	—
Q fever	—	—	—	—	1	—	—	—	—	—
Rabies, animal	14	9	15	11	15	14	13	10	7	15
Relapsing Fever	—	—	—	—	—	—	2	1	—	1

See footnotes on next page.

**Table 3 (cont'd). Historical communicable disease totals, Utah, 2003-2012**

Disease/Condition	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Rubella, congenital syndrome	—	2	—	—	—	—	—	—	—	—
Salmonellosis	236	248	394	284	294	374	318	350	338	260
Severe Acute Respiratory Syndrome (SARS)	1	—	—	—	—	—	—	—	—	—
Shiga toxin-producing <i>Escherichia coli</i> (STEC)	104	71	72	154	129	88	111	94	176	107
Shigellosis	55	48	50	75	44	41	25	50	55	34
Spotted Fever Rickettsiosis (Rocky Mountain Spotted Fever)	2	9	12	20	4	7	1	3	9	7
Streptococcal disease, invasive, group A	42	44	69	66	92	59	87	122	77	94
Streptococcal disease, invasive, group B	10	5	35	96	80	88	96	87	88	130
Streptococcal disease, invasive, other	U	U	U	275	236	295	244	268	334	309
<i>Streptococcus pneumoniae</i> , invasive disease	32	25	67	202	229	250	267	232	208	183
age <5 years	U	U	U	U	U	U	U	34	28	23
Syphilis, all stages	U	U	U	68	45	40	55	133	67	102
primary and secondary	13	13	10	21	20	25	31	65	14	42
early latent	7	5	7	7	2	10	7	20	9	8
late latent	50	60	40	38	23	5	17	47	44	52
congenital	—	1	—	2	—	—	—	1	—	—
Tetanus	—	—	—	1	—	—	1	—	—	—
Toxic shock syndrome (staphylococcal or streptococcal)	9	4	13	11	10	13	12	26	17	20
Tuberculosis, Active	39	36	29	34	39	27	37	20	34	37
Tularemia	2	2	1	3	12	8	—	2	1	2
Typhoid fever	—	1	2	1	4	1	—	3	—	2
Vancomycin-intermediate <i>Staphylococcus aureus</i> (VISA)	U	U	U	—	—	1	—	—	1	—
Vibriosis	—	1	—	8	—	—	1	1	1	1
West Nile virus, total	4	11	53	174	69	26	2	2	3	5
neuroinvasive disease	U	U	U	56	28	6	1	1	1	3
nonneuroinvasive disease	U	U	U	102	42	20	1	1	2	2

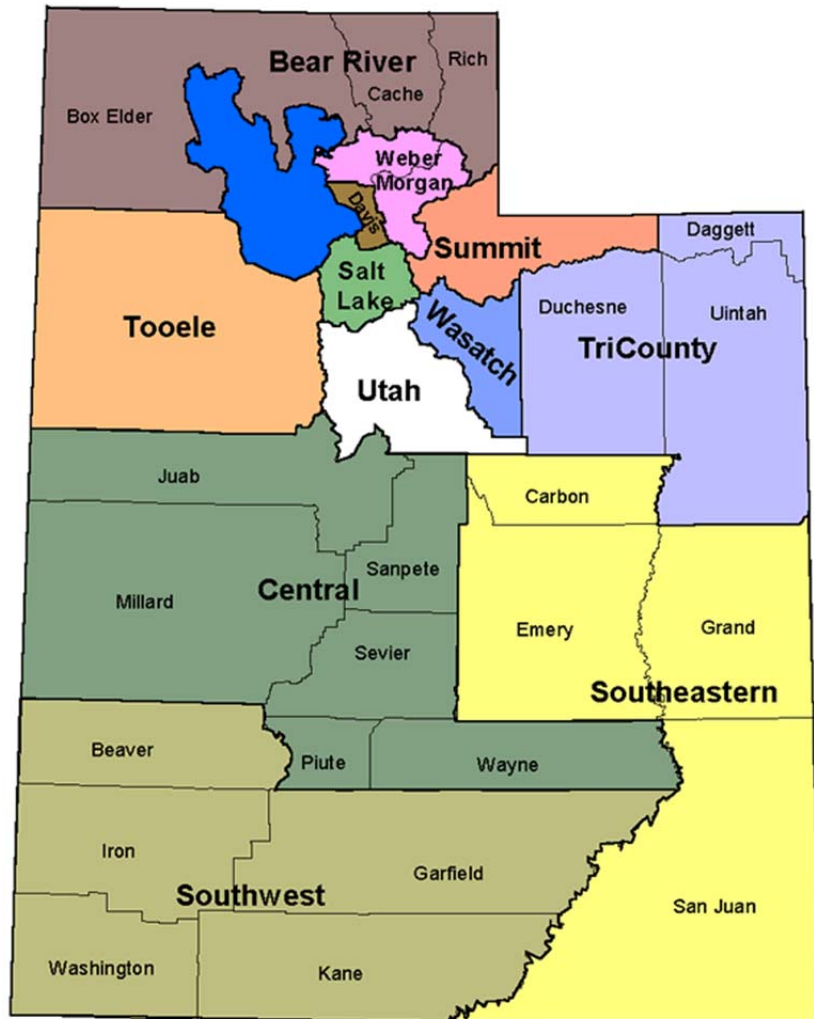
\* In 2008, the Centers for Disease Control and Prevention (CDC) published a revised HIV case definition. This combined separate surveillance case definitions for HIV infection and AIDS into a single case definition for HIV infection that includes AIDS (and incorporates the HIV infection classification system). Refer to the CDC revised surveillance case definitions for HIV infection among adults, adolescents, and children aged <18 months and for HIV infection and AIDS among children aged 18 months to <13 years—United States, 2008. MMWR 2008;57 (No.RR-10):1--12. Available at: [http://www.cdc.gov/mmwr/indrr\\_2008.html](http://www.cdc.gov/mmwr/indrr_2008.html).

† Influenza surveillance in Utah involves multiple components, and activity is best summarized on a season-wide, not annual, basis. Detailed information on these seasons can be found at <http://health.utah.gov/epi/diseases/influenza/>.

U: Unavailable

—: No reported cases

**Appendix A - Map of local health districts and counties, Utah**



There are 12 local health districts in the state of Utah, with 6 multi-county districts and 6 single-county districts.

<b>Local Health District</b>	<b>Counties in Service Area</b>
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 County Health Department	Salt Lake
Southeastern Utah District Health Department	Carbon, Emery, Grand, San Juan
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