# COMMUNICABLE DISEASE ANNUAL REPORT UTAH 2012



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UDOH's Communicable Disease Analysis and Reporting Program and the Communicable Disease Investigation and Response Program compiled this report. Reportable communicable disease data for Utah are published by the Utah Department of Health, Bureau of Epidemiology.

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http://health.utah.gov/epi/morbidity\_report/2013/monthly\_summary\_Nov.pdf.

### **Preface**

The Communicable Disease Annual Report – Utah, 2012 contains data for Utah's reportable diseases and conditions for 2012. 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 2012 for selected diseases and additional information to aid in the interpretation of surveillance data. Incidence data for reportable conditions occurring during 2012 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 local health district is presented in Table 1, and historical data is presented in Table 3. Cases are counted by the year the disease occurred as determined by the assigned Morbidity and Mortality Weekly Report (MMWR) week.<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 has in protecting the public's health has been expressed by the Centers for Disease Control and Prevention (CDC): "Notifiable disease reporting 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 to monitor the effect of reportable 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>

<sup>&</sup>lt;sup>1</sup>Centers for Disease Control and Prevention (2012). MMWR Weeks. Available at:

http://wwwn.cdc.gov/nndss/document/MMWR\_week\_overview.pdf

<sup>&</sup>lt;sup>2</sup>Utah Division of Administrative Rules (2012). Utah administrative code rule R386-702, communicable disease rule. Available at: http://www.rules.utah.gov/publicat/code/r386/r386-702.htm#T1

<sup>&</sup>lt;sup>3</sup>Centers for Disease and Prevention (2012). Summary of notifiable disease – United States, 2010. *Morbidity and Mortality Weekly Report (MMWR)*, 59(53). Available at: http://www.cdc.gov/mmwr/pdf/wk/mm5953.pdf

# Reportable Diseases, Emergency Illnesses, and Health Conditions in Utah, 2012

Lyme disease

Plague

Pelvic Inflammatory Disease (PID)

Poliovirus infection, nonparalytic

Pertussis (Whooping Cough)

Poliomyelitis, paralytic

Acquired Immunodeficiency Syndrome (AIDS) Adverse event resulting after smallpox vaccination

Malaria **Amebiasis** Measles Anthrax Meningitis

Arbovirus infection, including: Meningococcal disease

Saint Louis encephalitis Mumps West Nile virus Norovirus infection

**Babesiosis Botulism** Brucellosis Campylobacteriosis

Chancroid

Chlamydia trachomatis infection **Psittacosis** Cholera Q Fever

Coccidioidomycosis Rabies (human and animal)

Relapsing fever, tick-borne and louse-borne Colorado tick fever Creutzfeldt-Jacob disease

Rubella

Rubella (congenital syndrome) Other transmissible human spongiform

encephalopathies Salmonellosis

Cryptosporidiosis Sever Acute Respiratory Syndrome (SARS) Cyclosporidiosis Shiga toxin-producing Escherichia coli (STEC)

Dengue fever **Shigellosis** Diphtheria Smallpox

**Echinococcosis** Spotted fever rickettsioses **Ehrlichiosis** Staphylococcus aureus with:

Encephalitis Resistance to vancomycin (VRSA) or

Giardiasis Intermediate resistance to vancomycin (VISA)

Gonorrhea Streptococcal disease, invasive

Haemophilus influenzae, invasive disease Streptococcus pneumonia, invasive disease

Hansen's disease (Leprosy) **Syphilis** Hantavirus infection and pulmonary syndrome **Tetanus** 

Hemolytic uremic syndrome (post-diarrheal) Toxic-shock syndrome, staphylococcal or

Hepatitis: streptococcal Trichinellosis Hepatitis A Hepatitis B, acute and chronic **Tuberculosis** 

Hepatitis C, acute and chronic Tularemia

Hepatitis, other viral Typhoid, cases and carriers Varicella (Chickenpox) Human immunodeficiency virus (HIV) infection

Influenza-associated hospitalization Vibriosis

Influenza-associated pediatric mortality Viral hemorrhagic fevers

Legionellosis Yellow fever

Listeriosis

\*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 2012. 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 from it as its incidence declines.

# **Highlights for 2012**

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

# Chlamydia

Chlamydia trachomatis infections continue to be the most commonly reported communicable disease, both in Utah and nationally. This sexually transmitted disease represents the largest number of reported disease cases in 2012 and primarily affects younger populations. Utah's chlamydia rate increased 18% from 2008 to 2012 and about 67% of reported chlamydia cases are among persons 15-24 years of age. The majority of infected individuals experience no signs or symptoms leaving testing as the only way to know for sure if a person is infected. Untreated chlamydia can result in infertility.

# Pertussis ("Whooping Cough")

Utah saw record breaking numbers of pertussis cases in 2012. The 1,591 cases reported were more than double the cases reported in 2011. Nationally, the incidence rate was 15.5 per 100,000 persons yet Utah's incidence rate was 55.6 per 100,000 persons. The age group of <1 year experienced the highest amount of cases, followed by the 5-14 years age group.

### **Influenza-associated Hospitalizations**

Public health in Utah gathers data on persons hospitalized with influenza ("flu") to better understand subgroups that are most severely affected. In 2012, the majority of flu hospitalizations occurred in the month of December. Approximately 90% of all flu hospitalizations occurring in 2012 had a known risk factor for severe disease. Risk factors include children less than 5 years of age, adults 65 years of age and older, pregnant women, and persons with chronic medical conditions like asthma and diabetes.

### Gonorrhea

In 2012, gonorrhea was the fifth most frequently reported communicable disease in Utah and the second most reported disease in the United States. From 2006, Utah's gonorrhea rates decreased annually to its lowest reported rate in 2011; however, in 2012, the rate increased 74% compared to 2011. In Utah, gonorrhea rates among males are consistently higher than among females. Also, gonorrhea has grown resistant to most drugs used to treat it. Even after treatment a person can get reinfected, making gonorrhea a difficult disease to manage.

# Varicella ("Chickenpox")

Since introduction of the chickenpox vaccine, the number of cases and hospitalizations has dropped dramatically. Of the 311 cases of chickenpox reported in Utah in 2012, 60% reported having been vaccinated with at least one dose of the chickenpox vaccine; 35% reported no chickenpox vaccination; and for 5%, vaccination status was unknown. Only 4% of chickenpox cases in 2012 were reported to be part of a school outbreak. Of the cases linked to a school outbreak, 77% were not vaccinated.

### **Cryptosporidiosis**

"Crypto" cases tripled from 2011 to 2012. There were multiple exposures of cryptosporidiosis in water parks in Salt Lake and Utah Counties which resulted in closure and restoring sanitation in the parks. Most cases in 2012 reported recreational water (such as lakes and streams) as the suspected exposure for illness. This is different from previous years where facilities such as pools, water parks, and interactive water fountains (splash pads) were the suspected place of exposure.

Table 1. Frequency\* and incidence rate<sup>†</sup> of reportable diseases, Utah and United States, 2012

Disease/Condition	2012 Count	Previous 5- year Average	Utah - 2012 Incidence	U.S 2012 Incidence <sup>§</sup>
Disease/Condition Amebiasis**		, ,		**
Anthrax	8	8.8	0.28 0	0
Anthrax Arbovirus infection (not including West Nile, Dengue, or Yellow Fever)	0	0	0	0.03
Babesiosis	0	U	0	0.03
Botulism, Total	9	4.4	0.32	0.31
foodborne	0	1.6	0.52	0.03
infant	9	2.8	0.32	0.04
other(wound/unspecified)	0	0	0.52	0.04
Brucellosis	2	0.8	0.07	0.04
Campylobacteriosis**			15.80	V.U4 **
Chancroid	451 0	352.4 0	15.80	0
		-	266.73	456.68
Chlamydia trachomatis infection	7,616	6,330.8		
Cholera	0	0	0	0
Coccidioidomycosis	57	43.6	2.0	5.71 **
Colorado tick fever**	1	1	0.04	**
Creutzfeldt-Jakob Disease**	0	2	0	
Cryptosporidiosis	196	435.6	6.86	2.55
Cyclosporiasis	0	0	0	0.04
Dengue	5	5.6	0.18	0.17
Diphtheria	0	0	0	0
Echinococcosis**	0	0.2	0	
Ehrlichiosis/Anaplasmosis	1	0.4	0.04	1.20
Encephalitis**	6	6.8	0.21	**
Giardiasis	286	343	10.02	4.87
Gonorrhea	480	445.2	16.81	107.46
HIV/AIDS infection	109	109.4	3.87	11.35
Haemophilus influenzae, all ages, invasive disease	33	38.6	1.16	1.09
nonserotype B, age<5 years	6	U	0.21	0.07
serotype b, age<5 years	2	U	0.07	0
unknown serotype, age<5 years	3	U	0.11	0.07
Hansen's disease (Leprosy)	1	1	0.04	0.03
Hantavirus pulmonary syndrome	2	0.4	0.07	0.01
Hemolytic uremic syndrome, post-diarrheal	5	7.2	0.18	0.09
Hepatitis A	4	9.8	0.14	0.50
Hepatitis B, acute	14	10.2	0.46	0.93
Hepatitis B, chronic**	10	U	0.35	**
Hepatitis C, acute	17	9	0.60	0.57
Hepatitis C, chronic**	972	U	34.49	**
Hepatitis, other viral**	2	1.2	0.07	**
Influenza-associated hospitalization**	608	604.8	21.29	**
Influenza-associated pediatric mortality	1	1.8	0.04	0.02
Legionellosis	27	25	0.95	1.18
Listeriosis	2	3	0.07	0.23
Lyme disease	5	10	0.18	9.89
Malaria	14	6	0.49	0.48
Measles	1	2.6	0.04	0.02
Meningitis, aseptic**	52	88.2	1.82	**
Meningitis, bacterial, other**	8	19.2	0.28	**
Meningitis, viral**	22	68.4	0.77	**
Meningococcal disease (Neisseria meningitidis)	4	7.8	0.14	0.18
Mumps	3	2.4	0.11	0.07
Norovirus infection**	47	34.2	1.65	**
Pelvic Inflammatory Disease (PID)**	0	1.2	0	**
Pertussis	1,591	357	55.72	15.49
Plague	0	0.2	0	0

See footnotes on next page.

Table 1 (cont'd). Frequency\* and incidence rate<sup>†</sup> of reportable diseases, Utah and United States, 2012

Phase (Our date)	2012 Count	Previous 5- year Average	Utah - 2012 Incidence	U.S 2012 Incidence <sup>§</sup>
Disease/Condition				
Poliomyelitis, paralytic	0	0	0	0
Poliovirus infection, nonparalytic	0	0	0	0
Psittacosis	0	0	0	0
Q fever	0	0.2	0	0.04
Rabies, animal	15	11.8	0.53	1.44
Rabies, human	0	0	0	0
Relapsing fever**	1	0.6	0.04	
Rubella	0	U	0	0
Rubella, congenital syndrome	0	0	0	0
Salmonellosis	260	334.8	9.11	17.27
Severe Acute Respiratory Syndrome (SARS)	0	0	0	0
Shiga toxin-producing Escherichia coli (STEC)	107	119.6	3.72	2.07
Shigellosis	34	43	1.19	4.90
Smallpox	0	0	0	0
Spotted Fever Rickettsiosis (Rocky Mountain Spotted Fever)	7	4.8	0.25	1.43
Streptococcal disease, invasive, group A**	94	87.4	3.29	**
Streptococcal disease, invasive, group B**	130	87.8	4.55	**
Streptococcal disease, invasive, groups C and G**	39	U	1.37	**
Streptococcal disease, invasive, other**	268	U	9.39	**
Streptococcal toxic-shock syndrome	18	14.2	0.63	0.06
Streptococcus pneumoniae, invasive disease	183	237.2	6.41	5.02
age<5 years	23	U	0.82	0.41
Syphilis, total, all stages	102	68	2.38	16.02
congenital	0	0.2	0	0.10
early latent**	8	9.6	0.28	**
late & late latent**	52	27.2	1.82	**
primary & secondary	42	31	1.47	5.03
Tetanus	0	0.2	0	0.01
Toxic-shock syndrome (TSS)	2	1.4	0.07	0.02
Trichinellosis	0	0	0	0
Tuberculosis, active	38	31.6	1.33	3.19
Tularemia	2	4.6	0.07	0.05
Typhoid fever	2	1.6	0.07	0.11
Vancomycin-intermediate Staphylococcus aureus (VISA)	0	0.4	0	0.04
Vancomycin-resistant Staphylococcus aureus (VRSA)	0	0	0	0
Varicella (Chickenpox)	318	573.6	11.14	4.32
Vibriosis	1	0.6	0.04	0.36
Viral hemorrhagic fevers	0	0	0	0
West Nile virus, total	5	20.4	0.18	1.82
neuroinvasive disease	3	7.4	0.11	0.92
nonneuroinvasive disease	2	13.2	0.07	0.90
Yellow fever	0	U	0	0

<sup>\*2012</sup> frequency counts determined using print criteria outlined in the Centers for Disease Control and Prevention (CDC) Nationally Notifiable Diseases and Other Conditions of Public Health Importance, 2012; and represent totals reported to the Utah Department of Health as of May 15, 2013.

U:Unavailable.

<sup>&</sup>lt;sup>†</sup>Per 100,000 population. Utah population estimates obtained from Utah's Indicator-Based Information System for Public Health: Ibis.health.utah.gov

<sup>&</sup>lt;sup>§</sup> U.S. incidence based on case counts and population estimates found in the CDC *Final 2012 Reports of Nationally Notifiable Infectious Diseases*. MMWR Weekly, 62(33); 669-682. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6233a6.htm

<sup>\*\*</sup>Not a nationally notifiable disease/condition.

Table 2. Frequency\* and incidence rate† of reportable diseases by local health district, Utah, 2012

	Bear	River	Ce	ntral	Da	vis Co	Salt L	ake Co	Southe	astern	Sout	hwest	Sum	mit Co
Disease/Condition	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)
Amebiasis							8	0.75						
Botulism, Total	2	1.19			3	0.95	2	0.19						
infant	2	1.19			3	0.95	2	0.19						
Brucellosis					1	0.32	1	0.09						
Campylobacteriosis	62	36.91	25	32.96	36	11.40	151	14.19	5	8.85	33	15.69	13	34.21
Chlamydia trachomatis infection	296	176.23	76	100.18	865	273.90	3924	368.85	158	279.78	355	168.75	63	165.78
Coccidioidomycosis	3	1.79	2	2.64	8	2.53	12	1.13			28	13.31	1	2.63
Colorado Tick Fever					1	0.32								
Cryptosporidiosis	13	7.74	2	2.64	44	13.93	79	7.43					1	2.63
Dengue					1	0.32	3	0.28						
Ehrlichiosis/Anaplasmosis														
Encephalitis					1	0.32	4	0.38						
Giardiasis	8	4.76	4	5.27	36	11.40	141	13.25	1	1.77	16	7.61	8	21.05
Gonorrhea	8	4.76	3	3.95	41	12.98	340	31.96	5	8.85	14	6.65	3	7.89
HIV/AIDS infection	4	2.38	2	2.64	10	3.17	60	5.64	1	1.77	7	3.33		
Haemophilus influenzae, all ages, invasive														
disease	1	0.60	3	3.95	1	0.32	20	1.88			1	0.48	1	2.63
nonserotype B, age<5 years	1	0.60					3	0.28						
serotype b, age<5 years			1	1.32										
unknown serotype, age<5 years							3	0.28						
Hansen disease (Leprosy)											1	0.48		
Hantavirus pulmonary syndrome			1	1.32			1	0.09						
Hemolytic uremic syndrome, post-diarrheal							2	0.19						
Hepatitis A					1	0.32	2	0.19						
Hepatitis B, acute					1	0.32	8	0.75			1	0.48		
Hepatitis B, chronic	1	0.60			1	0.32	4	0.38			1	0.48		
Hepatitis C, acute					3	0.95	7	0.66					1	2.63
Hepatitis C, chronic	25	14.88	18	23.73	79	25.02	467	43.90	9	15.94	44	20.91	14	36.84
Hepatitis, other viral							2	0.19						
Influenza-associated hospitalization	35	20.84	21	27.68	47	14.88	315	29.61	3	5.31	56	26.62	10	26.31
Influenza-associated pediatric mortality							1	0.09						
Legionellosis	2	1.19			3	0.95	16	1.50			1	0.48	1	2.63
Listeriosis					1	0.32	1	0.09						
Lyme disease					3	0.95	1	0.09						
Malaria							11	1.03						
Measles							1	0.09						
Meningitis, aseptic	8	4.76			13	4.12	11	1.03			1	0.48		
Meningitis, bacterial, other					1	0.32	5	0.47						
Meningitis, viral			1	1.32	3	0.95	7	0.66			2	0.95		
Meningococcal disease (Neisseria meningitidis)							2	0.19			1	0.48		

See footnotes on page 11.

Table 2 (cont'd). Frequency\* and incidence rate† of reportable diseases by local health district, Utah, 2012

									We	ber-		
	Too	ele Co	TriC	ounty	Uta	ah Co	Wasa	tch Co	Mo	rgan	Unknown	Total
Disease/Condition	Cases	(Rate)										
Amebiasis												
Botulism, Total					2	0.37						
infant					2	0.37						
Brucellosis												
Campylobacteriosis	7	11.69	5	9.11	59	10.92	10	39.57	43	17.45	2	45
Chlamydia trachomatis infection	118	197.09	89	162.24	803	148.57	42	166.19	827	335.55		7,61
Coccidioidomycosis					2	0.37			1	0.41		5
Colorado Tick Fever												
Cryptosporidiosis	1	1.67	9	16.41	28	5.18	1	3.96	16	6.49	2	19
Dengue					1	0.19						
Ehrlichiosis/Anaplasmosis					1	0.19						
Encephalitis									6	2.43		
Giardiasis	7	11.69	3	5.47	37	6.85	4	15.83	21	8.52		28
Gonorrhea	3	5.01	4	7.29	17	3.15			42	17.04		48
HIV/AIDS infection	3	5.01	2	3.65	16	2.96			4	1.62		10
Haemophilus influenzae, all ages, invasive												
disease					1	0.19	1	3.96	4	1.62		3
nonserotype B, age<5 years					1	0.19			1	0.41		
serotype b, age<5 years							1	3.96				
unknown serotype, age<5 years												
Hansen disease (Leprosy)												
Hantavirus pulmonary syndrome												
Hemolytic uremic syndrome, post-diarrheal					2	0.37			1	0.41		
Hepatitis A					1	0.19						
Hepatitis B, acute					1	0.19			2	0.81		1
Hepatitis B, chronic					3	0.56						1
Hepatitis C, acute			1	1.82	2	0.37			3	1.22		1
Hepatitis C, chronic	27	45.10	20	36.46	122	22.57	8	31.65	136	55.18	3	97
Hepatitis, other viral												
Influenza-associated hospitalization	2	3.34	4	7.29	75	13.88	2	7.91	38	15.42		60
Influenza-associated pediatric mortality												
Legionellosis					2	0.37			2	0.81		2
Listeriosis												
Lyme disease					1	0.19						
Malaria					2	0.37			1	0.41		1
Measles					_	3.3.			-	J <u>-</u>		_
Meningitis, aseptic									19	7.71		5
Meningitis, bacterial, other					1	0.19	1	3.96	13	,., <u>±</u>		
Meningitis, viral					3	0.56	_	3.50	6	2.43		2
Meningococcal disease (Neisseria meningitidis)					3	0.50	1	3.96	0	2.73		

Table 2 (cont'd). Frequency\* and incidence rate† of reportable diseases by local health district, Utah, 2012

	Bear	River	Ce	ntral	Da	vis Co	Salt L	ake Co	Southe	astern	Sout	hwest	Sum	mit Co
Disease/Condition	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)
Mumps							2	0.19					1	2.63
Norovirus infection	4	2.38	1	1.32	9	2.85	16	1.50			5	2.38	1	2.63
Pertussis	67	39.89	39	51.41	139	44.01	678	63.73	4	7.08	45	21.39	12	31.58
Rabies, animal			1	1.32	1	0.32	2	0.19			4	1.90	1	2.63
Relapsing Fever											1	0.48		
Salmonellosis	18	10.72	16	21.09	21	6.65	92	8.65	1	1.77	14	6.65	6	15.79
Shiga toxin-producing Escherichia coli (STEC)	14	8.34	1	1.32	12	3.80	31	2.91			6	2.85	3	7.89
Shigellosis			1	1.32	1	0.32	20	1.88	1	1.77	3	1.43		
Spotted Fever Rickettsiosis							1	0.09	1	1.77	3	1.43	1	2.63
Streptococcal disease, invasive, group A			1	1.32	11	3.48	55	5.17	2	3.54	3	1.43	1	2.63
Streptococcal disease, invasive, group B	4	2.38	5	6.59	14	4.43	53	4.98			13	6.18	1	2.63
Streptococcal disease, invasive, groups C and G			1	1.32	10	3.17	12	1.13	1	1.77	1	0.48	1	2.63
Streptococcal disease, invasive, other	6	3.57	5	6.59	28	8.87	114	10.72			6	2.85	6	15.79
Streptococcus pneumoniae, invasive disease	8	4.76	3	3.95	17	5.38	83	7.80	1	1.77	12	5.70	4	10.53
age<5 years					4	1.27	13	1.22			1	0.48		
Streptococcal toxic-shock syndrome					2	0.63	14	1.32			1	0.48		
Syphilis, total, all stages	2	1.19			9	2.85	75	7.05			1	0.48		
primary and secondary	2	1.19			1	0.32	34	3.20	1	1.77				
early latent					1	0.32	7	0.66						
late and late latent					7	2.22	34	3.20						
Toxic-shock syndrome (TSS)			1	1.32			1	0.09						
Tuberculosis, active	2	1.19			1	0.32	23	2.16	3	5.31	2	0.95	1	2.63
Tularemia							2	0.19						
Typhoid Fever							2	0.19						
Varicella (Chickenpox)	20	11.91	38	50.09	36	11.40	75	7.05	7	12.40	21	9.98	1	2.63
Vibriosis														
West Nile virus, total	2	1.19									1	0.48	1	2.63
neuroinvasive disease	1	0.60									1	0.48		
nonneuroinvasive disease	1	0.60											1	2.63

See footnotes on page 11.

Table 2 (cont'd). Frequency\* and incidence rate† of reportable diseases by local health district, Utah, 2012

									We	ber-		
	Too	ele Co	TriC	ounty	Uta	ıh Co	Wasa	tch Co	Mo	rgan	Unknown	Total
Disease/Condition	Cases	(Rate)										
Mumps												3
Norovirus infection	1	1.67	2	3.65	4	0.74			4	1.62		47
Pertussis	5	8.35	5	9.11	422	78.08	39	154.31	134	54.37		1591
Rabies, animal			2	3.65	3	0.56			1	0.41		15
Relapsing Fever												1
Salmonellosis	11	18.37	6	10.94	50	9.25	5	19.78	18	7.30	2	260
Shiga toxin-producing Escherichia coli (STEC)			2	3.65	25	4.63	2	7.91	8	3.25	3	107
Shigellosis	1	1.67			3	0.56			4	1.62		34
Spotted Fever Rickettsiosis					1	0.19						7
Streptococcal disease, invasive, group A	1	1.67	2	3.65	15	2.78			3	1.22		94
Streptococcal disease, invasive, group B	1	1.67	2	3.65	27	5.00			10	4.06		130
Streptococcal disease, invasive, groups C and G					6	1.11			7	2.84		39
Streptococcal disease, invasive, other	2	3.34	1	1.82	59	10.92	2	7.91	38	15.42	1	268
Streptococcus pneumoniae, invasive disease			1	1.82	33	6.11	2	7.91	19	7.71		183
age<5 years					3	0.56			2	0.81		23
Streptococcal toxic-shock syndrome									1	0.41		18
Syphilis, total, all stages					12	2.22			3	1.22		102
primary and secondary					3	0.56			1	0.41		42
early latent												8
late and late latent					9	1.67			2	0.81		52
Toxic-shock syndrome (TSS)												2
Tuberculosis, active			1	1.82	3	0.56			2	0.81		38
Tularemia												2
Typhoid Fever												2
Varicella (Chickenpox)	1	1.67	2	3.65	85	15.73	6	23.74	24	9.74	2	318
Vibriosis	1	1.67										1
West Nile virus, total									1	0.41		5
neuroinvasive disease									1	0.41		3
nonneuroinvasive disease												2

<sup>\*2012</sup> frequency counts determined using print criteria outlined in the Centers for Disease Control and Prevention Nationally Notifiable Diseases and Other Conditions of Public Health Importance 2012; and represent totals reported to the Utah Department of Health as of May 15, 2013.

<sup>†</sup>Per 100,000 population. Utah population estimates obtained from Utah's Indicator-Based Information System for Public Health: Ibis.health.utah.gov.

Table 3. Historical communicable disease totals, Utah, 2002 - 2011

Disease/Condition	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Amebiasis	6	8	6	13	6	4	11	6	11	12
Babesiosis										1
Botulism, Total	3	8	2	4	3	2	6	1	1	12
foodborne		3								8
infant	3	5	2	4	3	2	6	1	1	4
Brucellosis	1	3	1	1			1			3
Campylobacteriosis	261	269	329	302	271	327	372	311	347	405
Chancroid		2	1							
Chlamydia trachomatis infection	3,566	3,840	3,858	4,602	5,090	5,720	6,019	6,145	6,690	7,080
Coccidioidomycosis	11	9	26	25	58	69	13	38	36	62
Colorado Tick Fever	1	1	1	3		3	1	1		
Creutzfeldt-Jakob Disease	4	1		2	1	1	4	2	2	1
Cryptosporidiosis	17	19	6	25	17	1,952	46	42	72	66
Dengue		1	5	3	6	17	6	2		3
Echinococcosis		_		2	1			_		1
Ehrlichiosis/Anaplasmosis				_	_			1		1
Encephalitis	2	10	6	12	7	5	8	11	8	2
Giardiasis	336	382	378	423	455	470	360	312	313	260
Gonorrhea	373	410	602	727	888	821	477	341	310	277
Haemophilus influenzae, all ages, invasive disease	20	15	20	13	19	43	41	34	33	42
nonserotype B, age<5 years	U	U	U	U	U	43 U	U	U	1	5
serotype b, age<5 years	U	U	U	U	U	U	U	U	3	2
	U	U	U	U		U	U	U		4
unknown serotype, age<5 years	2	1		U	U	U			1 1	
Hansen disease (Leprosy)			1		1		2	1	1	1
Hantavirus pulmonary syndrome	4	3	1	4	45	0	1	1	-	_
Hemolytic uremic syndrome, post-diarrheal	4	4	26	1	15	8	9	7	7	5
Hepatitis A	56	40	36	22	13	9	13	7	12	8
Hepatitis B, acute	53	51	50	38	26	15	13	5	8	10
Hepatitis B, chronic	U	U	U	U	U	U	U	U	70	18
Hepatitis C, acute	4		8	4	11	6	11	7	10	11
Hepatitis C, chronic	U	U	U	U	U	U	U	U	1,118	1,120
Hepatitis, other viral						1	1		1	3
HIV/AIDS infection*	84	125	127	123	126	118	129	128	87	94
Influenza-associated hospitalization†	U	U	U	577	217	286	508	1,531	209	490
Influenza-associated pediatric mortality†	U	U	U	U	U	3		5	1	
Legionellosis	18	27	22	17	27	20	31	29	27	18
Listeriosis	3	2	2	5	2	3	2	2	3	5
Lyme disease	7	4	7	4	5	17	7	13	3	10
Malaria	6	6	8	6	19	12	5	4	3	6
Measles	1			1						13
Meningitis, bacterial, other	20	13	6	13	37	15	16	7	13	45
Meningitis, aseptic		6	45	191	153	145	132	106	46	12
Meningitis, viral	141	206	117	83	84	136	57	63	51	35
Meningococcal disease (Neisseria meningitidis)	7	7	8	16	7	15	8	4	1	11
Mumps	7	5	2	7	5	2	3	4	3	
Norovirus infection	1	18	6	27	11	28	8	14	48	73
Pelvic Inflammatory Disease (PID)	2	4	8	14	8	2			1	3
Pertussis	115	144	302	665	741	373	186	226	352	648
Plague	-				1	-		1	-	
Psittacosis	1		1		_			_		
Q fever	-		-			1				
Rabies, animal	13	14	9	15	11	15	14	13	10	7
Relapsing Fever	13	14	9	13	11	13	14	2	10	,
Spotted Fever Rickettsiosis (Rocky Mountain Spotted Fever)	1	2	9	12	20	4	7	1	3	9
Rubella, congenital syndrome	1	4	2	12	20	4	,	1	э	9
			,							

See footnotes on next page.

Table 3 (cont'd). Historical communicable disease totals, Utah, 2002-2011

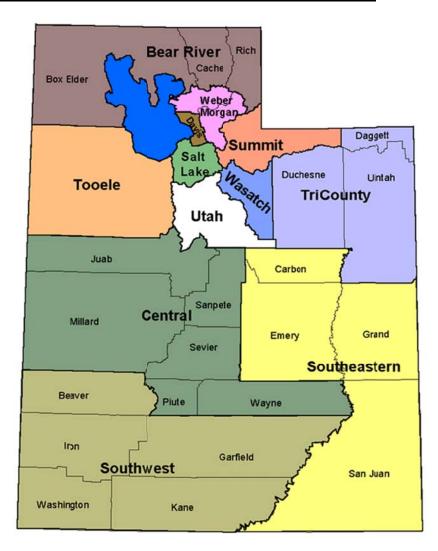
Disease/Condition	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Severe Acute Respiratory Syndrome (SARS)		1								
Shiga toxin-producing Escherichia coli (STEC)	102	104	71	72	154	129	88	111	94	176
Shigellosis	35	55	48	50	75	44	41	25	50	55
Streptococcal disease, invasive, group A	33	42	44	69	66	92	59	87	122	77
Streptococcal disease, invasive, group B	1	10	5	35	96	80	88	96	87	88
Streptococcal toxic-shock syndrome	3	5	3	8	7	6	13	12	24	16
Streptococcus pneumoniae, invasive disease	5	32	25	67	202	229	250	267	232	208
age<5 years	U	U	U	U	U	U	U	U	34	28
Syphilis, total, all stages	U	U	U	U	68	45	40	55	133	67
congenital	U	U	U	U	2				1	
early latent	U	U	U	U	7	2	10	7	20	9
late and late latent	U	U	U	U	38	23	5	17	47	44
primary and secondary	10	13	13	10	21	20	25	31	65	14
Tetanus					1			1		
Toxic-shock syndrome (TSS)	4	4	1	5	4	4			2	1
Tuberculosis, Active	31	39	36	29	34	39	27	37	20	35
Tularemia	1	2	2	1	3	12	8		2	1
Typhoid fever	2		1	2	1	4	1		3	
Vancomycin-intermediate Staphylococcus aureus (VISA)	U	U	U	U			1			1
Varicella (Chickenpox)	147	611	497	573	1,015	827	750	549	334	408
Vibriosis			1		8			1	1	1
West Nile virus, total		4	11	53	174	69	26	2	2	3
neuroinvasive disease	U	U	U	U	56	28	6	1	1	1
nonneuroinvasive disease	U	U	U	U	102	42	20	1	1	2

<sup>\*</sup>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.

<sup>†</sup>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/flu/.

U:Unavailable

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



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

Local Hoolth District	Counties in Comies Aves
Local Health District	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 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