COMMUNICABLE DISEASE ANNUAL REPORT

UTAH

2011

Contents

Preface 1

Background 1

Reportable Diseases, Emergency Illnesses, and Health Conditions in Utah, 2011* 2

Communicable Disease Highlights for 2011 3

Table 1. Frequency and incidence rate of reportable diseases, Utah & United States, 2011 4

Table 2. Frequency and incidence rate of reportable diseases by local health district, Utah, 2011..... 6

Table 3. Historical communicable disease totals, Utah, 2001-2010 10

Appendix A. Map of local health districts and counties, Utah A-1

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Preface

The *Communicable Disease Annual Report – Utah, 2011* contains data for Utah's reportable diseases and conditions for 2011. The data reported are collected and compiled from reports from Utah's local health departments (LHDs), laboratories, healthcare providers, hospitals, and other healthcare facilities. The Utah Department of Health (UDOH) tracks more than 70 communicable diseases (see Page 2) 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 2011 for selected diseases and additional information to aid in the interpretation of surveillance data. Incidence data for reportable conditions occurring during 2011 are presented (Table 1). The number of cases reported, incidence rates, comparisons to national data and historical 5-year averages in Utah are provided. In addition, a summary of cases of reportable disease by local health district (Table 2) and historical data (Table 3) are provided. Cases are counted by the year the disease occurred as determined by the assigned MMWR week.[1]

Background

A multidisciplinary approach to communicable disease control–prompt reporting, data analysis, data interpretation, case investigation, identification of common risk factors, treatment, and implementation of disease prevention interventions–has been established in Utah. 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. Continual 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 maintain and improve the health of Utah's citizens.[2]

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." [3]

[1] For more information regarding assignment of MMWR week please refer to the MMWR week fact sheet provided by the Centers for Disease Control and Prevention available at: http://wwwn.cdc.gov/nndss/document/MMWR_Week_overview.pdf

[2] 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

[3] Centers for Disease and Prevention (2012). Summary of notifiable disease – United States, 2010. *Morbidity and Mortality Weekly Report (MMWR)*, 59(53), 2.

Reportable Diseases, Emergency Illnesses, and Health Conditions in Utah, 2011*

Acquired Immunodeficiency Syndrome (AIDS)
Adverse event resulting after smallpox vaccination
Amebiasis
Anthrax
Arbovirus infection, including:
- Saint Louis encephalitis
- West Nile virus

Botulism
Brucellosis
Campylobacteriosis
Chancroid
Chickenpox (Varicella)
Chlamydia trachomatis infection
Cholera
Coccidioidomycosis
Colorado tick fever
Creutzfeldt-Jacob disease
- Other transmissible human spongiform encephalopathies

Cryptosporidiosis
Cyclospora infection
Dengue fever
Diphtheria
Echinococcosis
Ehrlichiosis (including unspecified):
- Human granulocytic
- Human monocytic

Encephalitis
Giardiasis
Gonorrhea
Haemophilus influenzae, invasive disease
Hansen's disease (Leprosy)
Hantavirus infection and pulmonary syndrome
Hemolytic uremic syndrome (post-diarrheal)
Hepatitis:
- Hepatitis A
- Hepatitis B, cases and carriers
- Hepatitis C, acute and chronic infection
- Hepatitis, other viral

Human immunodeficiency virus (HIV) infection
Influenza-associated hospitalization
Influenza-associated death in a person less than 18 years of age
Legionellosis
Listeriosis
Lyme disease
Malaria
Measles
Meningitis
Meningococcal disease
Mumps
Norovirus infection
Pelvic Inflammatory disease
Pertussis
Plague
Poliomyelitis, paralytic
Poliovirus infection, nonparalytic
Psittacosis
Q Fever
Rabies (human and animal)
Relapsing fever, tick-borne and louse-borne
Rubella
Rubella (congenital syndrome)
Salmonellosis
Sever Acute Respiratory Syndrome (SARS)
Shiga toxin-producing *Escherichia coli* (STEC) infection
Shigellosis
Smallpox
Spotted fever rickettsioses
Staphylococcus aureus with:
- Resistance to vancomycin (VRSA) or
- Intermediate resistance to vancomycin (VISA)

Streptococcal disease, invasive
Syphilis
Tetanus
Toxic-shock syndrome, staphylococcal or streptococcal
Trichinosis
Tuberculosis
Tularemia
Typhoid, cases and carriers
Vibriosis
Viral hemorrhagic fevers
Yellow fever

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* 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 2011. 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 2011

The following summaries for selected reportable communicable diseases are intended to highlight diseases that had a notable incidence, outbreaks, or other factors which deviated from normal disease activity.

Chickenpox (Varicella)

The number of chickenpox cases has been declining since 2006 in Utah. Chickenpox was very common in the United States before a vaccine became available in 1995. The numbers of chickenpox-related illness, hospitalizations, and deaths have decreased dramatically in the United States since that time. Both non- and under-vaccinated children in Utah's schools continue to be the largest source of outbreaks in the state.

Chlamydia

Chlamydial infections continue to be the most common communicable disease reported annually, both in Utah and nationally. Utah's chlamydia rates have increased over each of the past five years, with a 24% increase from 2007 to 2011.

Gonorrhea

Utah's gonorrhea incidence rates have declined over each of the past five years, with a 66% decrease in gonorrhea rates from 2007 to 2011. In 2011, the Utah gonorrhea rate was one-tenth of the national rate.

HIV/AIDS

While new HIV infection rates have decreased over recent years, the rate of people living in Utah with the chronic infection continues to grow. In 2002, Utah's rate was 69.8 infections per 100,000 population. That rate increased to 92.5 infections per 100,000 population 10 years later. In 2011, there were 2,606 Utah residents known to have HIV. Of those individuals, 53.9% had been diagnosed with AIDS. From 2010 to 2011, people living in Utah with an AIDS diagnosis decreased by 2%.

Measles

In April 2011, the first case of measles since 2005 was identified in Utah. By the end of July, a total of 13 confirmed cases had been identified. A family with unvaccinated children traveled to Poland where measles was known to be circulating. Upon returning to Utah, the children, one of whom was infectious, returned to school. Consequently, several other students were infected. Seven cases in Salt Lake County were identified as confirmed measles cases, three of which were members of the family that traveled to Poland. A second wave of measles occurred in Cache County several weeks later. There has been no evidence to link these two outbreaks; however, it is presumed that there were cases not reported that would have linked the two outbreaks. In Cache County, the first case of measles was in an unvaccinated child who spread the disease to other family members. Six cases were reported during the second outbreak.

Pertussis (Whooping Cough)

The 645 reported cases of pertussis in 2011 were nearly double the number of cases (352) reported in 2010. Pertussis is cyclical in nature and typically peaks in activity every 3-5 years. Numerous outbreaks of this vaccine-preventable disease were reported in 2011. The year 2006 was the last one that Utah saw high levels of pertussis circulating.

Salmonellosis

In 2011 there were several clusters of salmonellosis that contributed to the increase in reported cases. Notably, Utah was part of a national outbreak involving exposure to live baby poultry in the spring and early summer months. Annually, Utah typically has 1-2 clusters of salmonellosis associated with baby poultry exposure. Additionally, there was an outbreak of 46 cases of Salmonella Newport related to a two-year investigation. Illness related to this outbreak was associated with raw milk or queso fresco consumption. Queso fresco is a traditional Mexican cheese typically made with raw milk. Clusters of salmonellosis occur regularly with new sources of illness identified. Investigation of clusters is a priority to prevent further illness.

Table 1. Frequency* and incidence rate† of reportable diseases, Utah and United States, 2011

Disease/Condition	2011 Count	Previous 5-year Average	Utah - 2011 Incidence	U.S. - 2011 Incidence§
Amebiasis**	12	7.6	0.43	
Anthrax	0	0	0	0
Arbovirus infection (not including West Nile, Dengue, or Yellow Fever)	0	0	0	0.05
Babesiosis	1	U	0.04	0.36
Botulism, Total	12	2.6	0.43	0.05
foodborne	8	0	0.28	0.01
infant	4	2.6	0.14	0.03
other(wound/unspecified)	0	0	0	0.01
Brucellosis	3	0.2	0.11	0.03
Campylobacteriosis**	405	325.2	14.38	
Chancroid	0	0	0	0
***Chlamydia trachomatis* infection**	7,080	5,932.8	251.31	457.14
Cholera	0	0	0	0.01
Coccidioidomycosis	62	42.8	2.2	7.32
Colorado tick fever**	0	1	0	
Creutzfeldt-Jakob Disease**	1	1.8	0.04	
Cryptosporidiosis	66	425.8	2.34	2.99
Cyclosporiasis	0	0	0	0.05
Dengue	3	6.2	0.11	0.08
Diptheria	0	0	0	0
Echinococcosis**	1	0.2	0.04	
Ehrlichiosis/Anaplasmosis	1	0.2	0.04	1.16
Encephalitis**	2	7.8	0.07	
Giardiasis	260	382	9.23	5.42
Gonorrhea	277	567.4	9.83	104.14
HIV/AIDS infection	94	117.6	3.34	U
Haemophilus influenzae, all ages, invasive disease	42	34	1.49	1.15
nonserotype B, age<5 years	5	U	0.18	0.05
serotype b, age<5 years	2	U	0.07	0
unknown serotype, age<5 years	4	U	0.14	0.07
Hansen's disease (Leprosy)	1	1	0.04	0.03
Hantavirus pulmonary syndrome	0	0.4	0	0.01
Hemolytic uremic syndrome, post-diarrheal	5	9.2	0.18	0.09
Hepatitis A	8	10.8	0.28	0.45
Hepatitis B, acute	10	13.4	0.35	0.94
Hepatitis B, chronic	18	U	0.64	U
Hepatitis C, acute	11	9	0.39	0.4
Hepatitis C, chronic	1,120	U	39.76	U
Hepatitis, other viral**	3	0.6	0.11	
Influenza-associated hospitalization**	490	550.2	17.39	
Influenza-associated pediatric mortality	0	U	0	0.04
Legionellosis	18	26.8	0.64	1.36
Listeriosis	5	2.4	0.18	0.28
Lyme disease	10	9	0.35	10.71
Malaria	6	8.6	0.21	0.56
Measles	13	0	0.46	0.07
Meningitis, aseptic**	45	116.4	1.6	
Meningitis, bacterial, other**	12	17.6	0.43	
Meningitis, viral**	35	78.2	1.24	
Meningococcal disease (*Neisseria meningitidis*)	11	7	0.39	0.25
Mumps	0	3.4	0	0.13
Norovirus infection**	73	21.8	2.59	
Pelvic Inflammatory Disease (PID)**	3	2.2	0.11	
Pertussis	648	375.6	23	6.06
Plague	0	0.4	0	0

See footnotes on next page.

Table 1 (cont'd). Frequency* and incidence rate† of reportable diseases, Utah and United States, 2011

Disease/Condition	2011 Count	Previous 5-year Average	Utah - 2011 Incidence	U.S. - 2011 Incidence§
Poliomyelitis, paralytic	0	0	0	0
Poliovirus infection, nonparalytic	0	U	0	0
Psittacosis	0	0	0	0
Q fever	0	0.2	0	0.04
Rabies, animal	7	12.6	0.25	1.41
Rabies, human	0	0	0	0
Relapsing fever**	0	0.6	0	
Rubella	0	U	0	0
Rubella, congenital syndrome	0	0	0	0
Salmonellosis	338	324	12	16.79
Severe Acute Respiratory Syndrome (SARS)	0	0	0	0
Shiga toxin-producing *Escherichia coli* (STEC)	176	115.2	6.25	1.96
Shigellosis	55	47	1.95	4.32
Smallpox	0	0	0	0
Spotted Fever Rickettsiosis (Rocky Mountain Spotted Fever)	9	7	0.32	0.91
Streptococcal disease, invasive, group A**	77	85.2	2.73	
Streptococcal disease, invasive, group B**	88	89.4	3.12	
Streptococcal disease, invasive, groups C and G**	33	U	1.17	
Streptococcal disease, invasive, other**	292	U	10.36	
Streptococcal toxic-shock syndrome	16	12.4	0.57	0.05
Streptococcus pneumoniae, invasive disease	208	236	7.38	5.55
age<5 years	28	U	0.99	0.47
Syphilis, total, all stages	67	68.2	2.38	14.9
congenital	0	0.6	0	0.12
early latent	9	9.2	0.32	4.3
late & late latent	44	26	1.56	6
primary & secondary	14	32	0.5	4.52
Tetanus	0	0.4	0	0.01
Toxic-shock syndrome (TSS)	1	2	0.04	0.03
Trichinellosis	0	0	0	0
Tuberculosis, active	35	31.4	1.24	3.41
Tularemia	1	5	0.04	0.05
Typhoid fever	0	1.8	0	0.13
Vancomycin-intermediate *Staphylococcus aureus* (VISA)	1	0.2	0.04	0.03
Vancomycin-resistant *Staphylococcus aureus* (VRSA)	0	0	0	0
Varicella (Chickenpox)	408	695	14.48	4.7
Vibriosis	1	2	0.04	0.27
Viral hemorrhagic fevers	0	0	0	0
West Nile virus, total	3	54.6	0.11	0.23
neuroinvasive disease	1	18.4	0.04	0.16
nonneuroinvasive disease	2	33.2	0.07	0.07
Yellow fever	0	0	0	0

* 2011 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,*2011; and represent totals reported to the Utah Department of Health as of December 14, 2012.

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

§ U.S. incidence based on case counts and population estimates found in the CDC *Final 2011 Reports of Nationally Notifiable Infectious Diseases*. MMWR Weekly, 61(32); 624-637. Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6132a8.htm?s_cid=mm6132a8_w.

¶ Influenza surveillance in Utah involves multiple components, and activity is best summarized on a seasonal, not annual, basis. Additional Utah influenza surveillance data are available at: http://health.utah.gov/flu.

** Not a nationally notifiable disease/condition.

U: Unavailable.

Table 2. Frequency* and incidence rate† of reportable diseases by local health district, Utah, 2011

Disease/Condition	Bear River		Central Utah		Davis County		Salt Lake Valley		Southeastern Utah		Southwest Utah		Summit County	
	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)
Amebiasis					1	(0.32)	7	(0.67)					1	(2.66)
Babesiosis											1	(0.48)		
Botulism, Total					1	(0.32)	10	(0.95)					1	(2.66)
foodborne							8	(0.76)						
infant					1	(0.32)	2	(0.19)					1	(2.66)
Brucellosis					1	(0.32)	1	(0.10)						
Campylobacteriosis	57	(34.07)	23	(30.19)	26	(8.34)	143	(13.63)	3	(5.32)	16	(7.71)	7	(18.62)
***Chlamydia trachomatis* infection**	277	(165.58)	74	(97.15)	748	(239.89)	3634	(346.43)	127	(225.13)	346	(166.83)	54	(143.64)
Coccidioidomycosis					1	(0.32)	12	(1.14)			38	(18.32)		
Creutzfeldt-Jakob Disease														
Cryptosporidiosis	3	(1.79)			23	(7.38)	11	(1.05)			5	(2.41)		
Dengue							1	(0.10)						
Echinococcosis	1	(0.60)												
Ehrlichiosis/Anaplasmosis							1	(0.10)						
Encephalitis							2	(0.19)						
Giardiasis	8	(4.78)	6	(7.88)	24	(7.70)	121	(11.53)	4	(7.09)	17	(8.20)	5	(13.30)
Gonorrhea	3	(1.79)	1	(1.31)	18	(5.77)	196	(18.68)	7	(12.41)	10	(4.82)	2	(5.32)
HIV/AIDS infection	2	(1.20)	1	(1.31)	1	(0.32)	73	(6.96)			4	(1.93)	2	(5.32)
***Haemophilus influenzae*,** all ages, invasive disease	3	(1.79)	1	(1.31)	3	(0.96)	16	(1.53)			4	(1.93)		
nonserotype B, age<5 years							2	(0.19)			1	(0.48)		
serotype b, age<5 years			1	(1.31)			1	(0.10)						
unknown serotype, age<5 years							2	(0.19)			1	(0.48)		
Hansen disease (Leprosy)							1	(0.10)						
Hemolytic uremic syndrome, post-diarrheal					1	(0.32)	3	(0.29)						
Hepatitis A	1	(0.60)			2	(0.64)	2	(0.19)			1	(0.48)		
Hepatitis B, acute					2	(0.64)	4	(0.38)			3	(1.45)		
Hepatitis B, chronic	2	(1.20)					4	(0.38)	3	(5.32)	1	(0.48)		
Hepatitis C, acute					1	(0.32)	5	(0.48)			2	(0.96)		
Hepatitis C, chronic	11	(6.58)	18	(23.63)	61	(19.56)	623	(59.39)	33	(58.50)	66	(31.82)	11	(29.26)
Hepatitis, other viral							1	(0.10)						
Influenza-associated hospitalization	25	(14.94)	21	(27.57)	32	(10.26)	238	(22.69)	5	(8.86)	32	(15.43)	7	(18.62)
Legionellosis					3	(0.96)	8	(0.76)			2	(0.96)	1	(2.66)
Listeriosis							2	(0.19)						
Lyme disease					1	(0.32)	2	(0.19)			1	(0.48)	2	(5.32)
Malaria							3	(0.29)						
Measles	5	(2.99)	1	(1.31)			7	(0.67)						
Meningitis, aseptic	5	(2.99)			3	(0.96)	25	(2.38)						
Meningitis, bacterial, other	1	(0.60)			2	(0.64)	5	(0.48)						
Meningitis, viral	2	(1.20)			6	(1.92)	22	(2.10)			3	(1.45)		
Meningococcal disease *(Neisseria meningitidis)*	1	(0.60)	1	(1.31)	1	(0.32)	4	(0.38)						

See footnotes on page 9

Table 2 (cont'd). Frequency* and incidence rate† of reportable diseases by local health district, Utah, 2011

Disease/Condition	Tooele County		Tricounty		Utah County		Wasatch County		Weber-Morgan		Unknown	Total
	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)		
Amebiasis	1	(1.69)			2	(0.38)						12
Babesiosis												1
Botulism, Total												12
foodborne												8
infant												4
Brucellosis					1	(0.19)						3
Campylobacteriosis	3	(5.06)	11	(20.67)	68	(12.82)	11	(45.05)	25	(10.24)	12	405
***Chlamydia trachomatis* infection**	132	(222.50)	88	(165.39)	791	(149.10)	34	(139.25)	775	(317.49)		7,080
Coccidioidomycosis	2	(3.37)			5	(0.94)	1	(4.10)	3	(1.23)		62
Creutzfeldt-Jakob Disease					1	(0.19)						1
Cryptosporidiosis			10	(18.79)	8	(1.51)			3	(1.23)	3	66
Dengue					1	(0.19)			1	(0.41)		3
Echinococcosis												1
Ehrlichiosis/Anaplasmosis												1
Encephalitis												2
Giardiasis	2	(3.37)	5	(9.40)	51	(9.61)	3	(12.29)	12	(4.92)	2	260
Gonorrhea	1	(1.69)	2	(3.76)	20	(3.77)			17	(6.96)		277
HIV/AIDS infection	3	(5.06)	1	(1.88)	3	(0.57)			4	(1.64)		94
***Haemophilus influenzae*, all ages, invasive disease**			1	(1.88)	12	(2.26)			2	(0.82)		42
nonserotype B, age<5 years					2	(0.38)						5
serotype b, age<5 years												2
unknown serotype, age<5 years					1	(0.19)						4
Hansen disease (Leprosy)												1
Hemolytic uremic syndrome, post-diarrheal					1	(0.19)						5
Hepatitis A	1	(1.69)							1	(0.41)		8
Hepatitis B, acute					1	(0.19)						10
Hepatitis B, chronic					6	(1.13)			2	(0.82)		18
Hepatitis C, acute			1	(1.88)					2	(0.82)		11
Hepatitis C, chronic	10	(16.86)	25	(46.99)	121	(22.81)	2	(8.19)	131	(53.67)	8	1,120
Hepatitis, other viral					2	(0.38)						3
Influenza-associated hospitalization	3	(5.06)	3	(5.64)	57	(10.74)	1	(4.10)	66	(27.04)		490
Legionellosis					3	(0.57)			1	(0.41)		18
Listeriosis					1	(0.19)			2	(0.82)		5
Lyme disease					2	(0.38)	1	(4.10)	1	(0.41)		10
Malaria					2	(0.38)						5
Measles												13
Meningitis, aseptic			4	(7.52)	2	(0.38)			6	(2.46)		45
Meningitis, bacterial, other			3	(5.64)			1	(4.10)				12
Meningitis, viral					2	(0.38)						35
Meningococcal disease *(Neisseria meningitidis)*					2	(0.38)			2	(0.82)		11

See footnotes on page 9

Table 2 (cont'd). Frequency* and incidence rate† of reportable diseases by local health district, Utah, 2011

Disease/Condition	Bear River		Central Utah		Davis County		Salt Lake Valley		Southeastern Utah		Southwest Utah		Summit County	
	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)	Cases	(Rate)
Norovirus infection	1	(0.60)			21	(6.73)	24	(2.29)			1	(0.48)	4	(10.64)
Pertussis	30	(17.93)	4	(5.25)	21	(6.73)	335	(31.94)	3	(5.32)	14	(6.75)	9	(23.94)
Rabies, animal							3	(0.29)			1	(0.48)	1	(2.66)
Salmonellosis	27	(16.14)	11	(14.44)	39	(12.51)	138	(13.16)	8	(14.18)	19	(9.16)	6	(15.96)
Shiga toxin-producing *Escherichia coli* (STEC)	46	(27.50)	2	(2.63)	12	(3.85)	33	(3.15)	1	(1.77)	1	(0.48)	2	(5.32)
Shigellosis	1	(0.60)	5	(6.56)	1	(0.32)	35	(3.34)			3	(1.45)		
Spotted Fever Rickettsiosis							1	(0.10)			6	(2.89)		
Streptococcal disease, invasive, group A	1	(0.60)	2	(2.63)	6	(1.92)	40	(3.81)			4	(1.93)		
Streptococcal disease, invasive, group B	3	(1.79)	1	(1.31)	7	(2.24)	39	(3.72)			8	(3.86)		
Streptococcal disease, invasive, groups C and G					2	(0.64)	19	(1.81)			2	(0.96)		
Streptococcal disease, invasive, other	2	(1.20)	11	(14.44)	27	(8.66)	131	(12.49)	6	(10.64)	11	(5.30)	3	(7.98)
Streptococcus pneumoniae, invasive disease	13	(7.77)			12	(3.85)	98	(9.34)	1	(1.77)	19	(9.16)	4	(10.64)
age<5 years	2	(1.20)			2	(0.64)	12	(1.14)			4	(1.93)	1	(2.66)
Streptococcal toxic-shock syndrome					1	(0.32)	13	(1.24)			1	(0.48)		
Syphilis, total, all stages	1	(0.60)			4	(1.28)	50	(4.77)			1	(0.48)		
primary and secondary					1	(0.32)	9	(0.86)			1	(0.48)		
early latent	1	(0.60)					7	(0.67)						
late and late latent					3	(0.96)	34	(3.24)						
Toxic-shock syndrome (TSS)							1	(0.10)						
Tuberculosis, active	4	(2.39)					16	(1.53)	2	(3.55)	3	(1.45)		
Tularemia									1	(1.77)				
Vancomycin-intermediate *Staphylococcus aureus* (VISA)					1	(0.32)								
Varicella (Chickenpox)	16	(9.56)	14	(18.38)	43	(13.79)	110	(10.49)	25	(44.32)	74	(35.68)	2	(5.32)
Vibriosis							1	(0.10)						
West Nile virus, total	1	(0.60)					1	(0.10)						
neuroinvasive disease														
nonneuroinvasive disease	1	(0.60)					1	(0.10)						

See footnotes on page 9

Table 2 (cont'd). Frequency* and incidence rate† of reportable diseases by local health district, Utah, 2011

Disease/Condition	Tooele County Cases	Tooele County (Rate)	Tricounty Cases	Tricounty (Rate)	Utah County Cases	Utah County (Rate)	Wasatch County Cases	Wasatch County (Rate)	Weber-Morgan Cases	Weber-Morgan (Rate)	Unknown	Total
Norovirus infection	1	(1.69)	6	(11.28)	5	(0.94)	1	(4.10)	8	(3.28)	1	73
Pertussis	7	(11.80)	19	(35.71)	146	(27.52)	4	(16.38)	55	(22.53)	1	648
Rabies, animal					1	(0.19)			1	(0.41)		7
Salmonellosis	11	(18.54)	5	(9.40)	52	(9.80)	3	(12.29)	17	(6.96)	2	338
Shiga toxin-producing *Escherichia coli* (STEC)			7	(13.16)	14	(2.64)			54	(22.12)	4	176
Shigellosis					6	(1.13)			2	(0.82)	2	55
Spotted Fever Rickettsiosis					2	(0.38)						9
Streptococcal disease, invasive, group A					13	(2.45)			11	(4.51)		77
Streptococcal disease, invasive, group B	2	(3.37)			17	(3.20)	1	(4.10)	10	(4.10)		88
Streptococcal disease, invasive, groups C and G			1	(1.88)	6	(1.13)			3	(1.23)		33
Streptococcal disease, invasive, other	2	(3.37)			69	(13.01)			30	(12.29)		292
Streptococcus pneumoniae, invasive disease	1	(1.69)	2	(3.76)	27	(5.09)	4	(16.38)	25	(10.24)	2	208
age<5 years					4	(0.75)	1	(4.10)	1	(0.41)	1	28
Streptococcal toxic-shock syndrome									1	(0.41)		16
Syphilis, total, all stages			1	(1.88)	4	(0.75)			6	(2.46)		67
primary and secondary									3	(1.23)		14
early latent									1	(0.41)		9
late and late latent			1	(1.88)	4	(0.75)			2	(0.82)		44
Toxic-shock syndrome (TSS)												1
Tuberculosis, active					4	(0.75)			4	(1.64)	2	35
Tularemia												1
Vancomycin-intermediate *Staphylococcus aureus* (VISA)												1
Varicella (Chickenpox)	1	(1.69)	5	(9.40)	70	(13.20)	3	(12.29)	43	(17.62)	2	408
Vibriosis												1
West Nile virus, total	1	(1.69)										3
neuroinvasive disease	1	(1.69)										1
nonneuroinvasive disease												2

* 2011 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 2011; and represent totals reported to the Utah Department of Health as of September 30, 2012.

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

A map indicating counties served by each health department can be found in Appendix A.

Table 3. Historical communicable disease totals, Utah, 2001-2010

Disease/Condition	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Amebiasis	5	6	8	6	13	6	4	11	6	11
Botulism, Total	4	3	8	2	4	3	2	6	1	1
foodborne			3							
infant	4	3	5	2	4	3	2	6	1	1
Brucellosis	1	1	3	1	1			1		
Campylobacteriosis	238	261	269	329	302	271	327	372	311	347
Chancroid			2	1						
***Chlamydia trachomatis* infection**	2,804	3,566	3,840	3,858	4,602	5,090	5,720	6,019	6,145	6,690
Coccidioidomycosis	11	11	9	26	25	58	69	13	38	36
Colorado Tick Fever		1	1	1	3		3	1	1	
Creutzfeldt-Jakob Disease	U	4	1		2	1	1	4	2	2
Cryptosporidiosis	84	17	19	6	25	17	1,952	46	42	72
Dengue	4		1	5	3	6	17	6	2	
Echinococcosis					2	1				
Ehrlichiosis/Anaplasmosis									1	
Encephalitis		2	10	6	12	7	5	8	11	8
Giardiasis	286	336	382	378	423	455	470	360	312	313
Gonorrhea	201	373	410	602	727	888	821	477	341	310
***Haemophilus influenzae*, all ages, invasive disease**	10	20	15	20	13	19	43	41	34	33
nonserotype B, age<5 years	U	U	U	U	U	U	U	U	U	1
serotype b, age<5 years	U	U	U	U	U	U	U	U	U	3
unknown serotype, age<5 years	U	U	U	U	U	U	U	U	U	1
Hansen disease (Leprosy)	1	2	1	1		1		2	1	1
Hantavirus pulmonary syndrome	1	4	3	1				1	1	
Hemolytic uremic syndrome, post-diarrheal	13	4	4		1	15	8	9	7	7
Hepatitis A	66	56	40	36	22	13	9	13	7	12
Hepatitis B, acute	29	53	51	50	38	26	15	13	5	8
Hepatitis B, chronic	U	U	U	U	U	U	U	U	U	70
Hepatitis C, acute	3	4		8	4	11	6	11	7	10
Hepatitis C, chronic	U	U	U	U	U	U	U	U	U	1,118
Hepatitis, other viral							1	1		1
HIV/AIDS infection*	72	84	125	127	123	126	118	129	128	87
Influenza-associated hospitalization†	U	U	U	U	577	217	286	508	1,531	209
Influenza-associated pediatric mortality†	U	U	U	U	U	U	3		5	1
Legionellosis	10	18	27	22	17	27	20	31	29	27
Listeriosis	2	3	2	2	5	2	3	2	2	3
Lyme disease	2	7	4	7	4	5	17	7	13	3
Malaria	4	6	6	8	6	19	12	5	4	3
Measles		1			1					
Meningitis, bacterial, other	40	20	13	6	13	37	15	16	7	13
Meningitis, aseptic			6	45	191	153	145	132	106	46
Meningitis, viral	88	141	206	117	83	84	136	57	63	51
Meningococcal disease *(Neisseria meningitidis)*	10	7	7	8	16	7	15	8	4	1
Mumps	1	7	5	2	7	5	2	3	4	3
Norovirus infection	U	1	18	6	27	11	28	8	14	48
Pelvic Inflammatory Disease (PID)		2	4	8	14	8	2			1
Pertussis	78	115	144	302	665	741	373	186	226	352
Plague	1					1			1	
Psittacosis		1		1						
Q fever							1			
Rabies, animal	15	13	14	9	15	11	15	14	13	10
Relapsing Fever									2	1
Spotted Fever Rickettsiosis (Rocky Mountain Spotted Fever)	5	1	2	9	12	20	4	7	1	3
Rubella, congenital syndrome				2						
Salmonellosis	230	187	236	248	394	284	294	374	318	350
Severe Acute Respiratory Syndrome (SARS)			1							

See footnotes on next page

Table 3 (cont'd). Historical communicable disease totals, Utah, 2001-2010

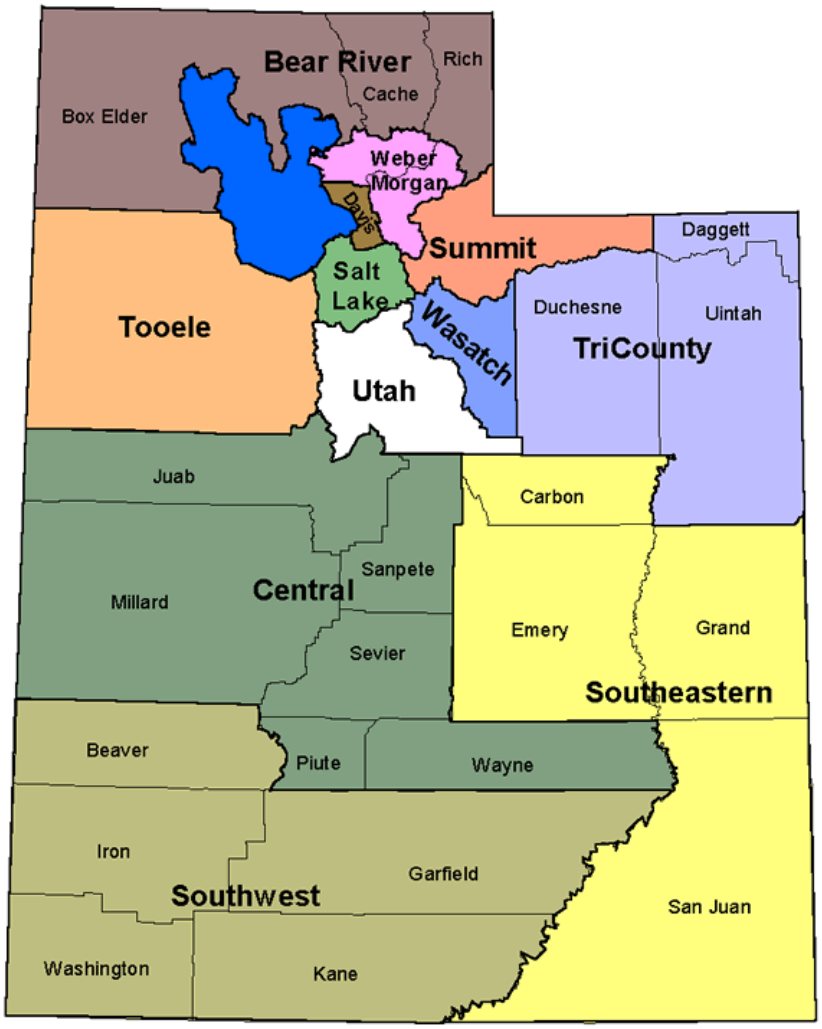
Disease/Condition	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Shiga toxin-producing *Escherichia coli* (STEC)	64	102	104	71	72	154	129	88	111	94
Shigellosis	64	35	55	48	50	75	44	41	25	50
Streptococcal disease, invasive, group A	3	33	42	44	69	66	92	59	87	122
Streptococcal disease, invasive, group B		1	10	5	35	96	80	88	96	87
Streptococcal toxic-shock syndrome	2	3	5	3	8	7	6	13	12	24
***Streptococcus pneumoniae*, invasive disease**		5	32	25	67	202	229	250	267	232
age<5 years	U	U	U	U	U	U	U	U	U	34
Syphilis, total, all stages	U	U	U	U	U	68	45	40	55	133
congenital	U	U	U	U	U	2				1
early latent	U	U	U	U	U	7	2	10	7	20
late and late latent	U	U	U	U	U	38	23	5	17	47
primary and secondary	7	10	13	13	10	21	20	25	31	65
Tetanus						1			1	
Toxic-shock syndrome (TSS)	2	4	4	1	5	4	4			2
Tuberculosis, Active	35	31	39	36	29	34	39	27	37	20
Tularemia	1	1	2	2	1	3	12	8		2
Typhoid fever	2	2		1	2	1	4	1		3
Vancomycin-intermediate *Staphylococcus aureus* (VISA)	U	U	U	U	U			1		
Varicella (Chickenpox)	92	147	611	497	573	1,015	827	750	549	334
Vibriosis	1			1		8			1	1
West Nile virus, total	U		4	11	53	174	69	26	2	2
neuroinvasive disease	U	U	U	U	U	56	28	6	1	1
nonneuroinvasive disease	U	U	U	U	U	102	42	20	1	1

*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). The revised HIV case definition provides a more complete presentation of the HIV epidemic on a population level. Please see 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.

†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 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 Valley 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