Utah Department of Health & Human Services

Utah communicable disease report, 2020

Contents

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1 Introduction

The **Utah communicable disease report 2020** is a web-based report; this is the PDF version and lacks some features of the web-based report, but all critical information is retained. You can navigate through the different chapters by using the table of contents at the top of the document.

1.1 Acknowledgements

The Utah Department of Health and Human Services (DHHS) recognizes the efforts of local health department (LHD) personnel throughout the state who play a critical role in data collection and case investigation; their work allows for accurate and timely reporting of communicable disease data.

The DHHS also recognizes the efforts of other reporting partners, including laboratories, healthcare facilities, healthcare providers, and the public, in the provision of communicable disease data that have contributed to this report.

Reportable communicable disease data for Utah are published by the Utah Department of Health and Human Services Office of Communicable Diseases.

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1.2 Preface

The *Communicable disease annual report for Utah, 2020* contains data related to Utah's reportable diseases and conditions reported in Utah for 2020. 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 and Human Services(DHSS) tracks more than 75 communicable diseases in Utah annually. Each case of disease is investigated in collaboration with the LHDs.

The Highlights section presents noteworthy epidemiologic information from 2020 for selected diseases and additional information to aid in the interpretation of surveillance data. Incidence data (new cases of reportable conditions in 2020), historical 5-year averages, and the incidence rates are presented in [State Disease Activity] table. In addition, a summary of cases of reportable disease by

LHD is presented in the [Jurisdiction Disease Activity] section, and historical case counts and rates are presented in Yearly Disease Comparison section. 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).

1.3 Important note about influenza

Throughout this report, influenza data are presented in the year the influenza season **ended**, and represent data for the CDC defined influenza season. Influenza season typically begins in October and surveillance extends through May of the following year. For example, data presented for the year 2020 is indicative of data collected from the 2019–2020 influenza season. This type of presentation provides accurate measures for annual influenza activity. Sporadic cases of influenza that occur outside of the traditional influenza season are assigned to the previous season (i.e., an influenza case reported in August of 2020 would be assigned to the 2018–2019 influenza season). This report reflects activity for the 2019–2020 influenza season. More information on influenza activity in Utah can be found here.

1.4 Background

A multidisciplinary 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 20th 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 healthcare 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. [1]

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

[1] Utah Division of Administrative Rules. Utah Administrative Code Rule R386-702, Communicable Disease Rule. Available at: https://rules.utah.gov/publicat/code/r386/r386-702.htm

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 may occur. 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." [2]

Reportable communicable diseases in Utah, 2020 [3]

Acinetobacter species with resistance to carbapenems

Acute flaccid myelitis

Acquired immunodeficiency syndrome (AIDS)

Adverse event resulting from smallpox vaccination

Anaplasmosis

Anthrax

Arbovirus infection, including Saint Louis encephalitis and West Nile virus

Babesiosis

Botulism

Botulism, infant

Brucellosis

Campylobacteriosis

Chancroid

Chickenpox

[2]Centers for Disease and Prevention (2014). Summary of Notifi able Diseases–United States, 2012. Morbidity and Mortality Weekly Report (MMWR), 61(53). Available at: http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6153a1.htm

[3]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 2020. The list of reportable diseases and conditions in Utah is revised periodically. A disease may be added to the list as a new public health threat emerges, or a disease may be removed as its incidence declines.

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Chlamydia trachomatis infection

Cholera

Coccidioidomycosis

Colorado tick fever

COVID-19

Creutzfeldt-Jacob disease and other transmissible human spongiform encephalopathies

Cryptosporidiosis

Cyclosporiasis

Dengue fever

Diphtheria

Ehrlichiosis, human granulocytic, human monocytic, or unspecified

Encephalitis

Enterobacter species with resistance or intermediate resistance to carbapenems

Escherichia coli with resistance or intermediate resistance to carbapenems

Giardiasis

Gonorrhea

Haemophilus influenzae, invasive disease

Hansen's disease (Leprosy)

Hantavirus pulmonary syndrome

Hemolytic uremic syndrome, post-diarrheal

Hepatitis A

Hepatitis B, cases and carriers

Hepatitis C, acute and chronic

Hepatitis, other viral

Human immunodeficiency virus (HIV) infection

Influenza-associated hospitalization

Influenza-associated pediatric death

Klebsiella species with resistance or intermediate resistance to carbapenems

Legionellosis

Listeriosis

Lyme disease

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Malaria

Measles

Meningitis (aseptic, bacterial, fungal, parasitic, protozoan, and viral)

Meningococcal disease

Mumps

Mycobacteria other than tuberculosis

Norovirus

Pertussis (whooping cough)

Plague

Poliomyelitis, paralytic

Poliovirus infection, nonparalytic

Pregnancy associated with hepatitis B, hepatitis C, HIV, Listeria, rubella, syphilis, or Zika virus infection

Psittacosis

Q fever

Rabies, human and animal

Relapsing fever, tick-borne and louse-borne

Rubella

Rubella, congenital syndrome

Salmonellosis

Severe acute respiratory syndrome (SARS)

Shiga toxin-producing Escherichia coli (STEC) infection

Shigellosis

Smallpox

Spotted fever rickettsioses, including Rocky Mountain spotted fever

Staphylococcus aureus with resistance (VRSA)

Streptococcal disease, invasive, including: Streptococcus pneumoniae and groups A, B, C, and G
streptococci isolated from a normally sterile site

Syphilis, all stages and congenital

Tetanus

Toxic-shock syndrome, staphylococcal or streptococcal

Trichinellosis

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Tuberculosis

Tularemia

Typhoid, cases and carriers

Vibriosis

Viral hemorrhagic fevers, including Ebola, Lassa, Marburg, and Nipah virus-related illnesses

Yellow fever

Zika virus

2 Highlights

The following are summaries for selected communicable diseases highlighting conditions that had notable incidence, outbreaks, or other factors.

2.1 COVID-19

COVID-19 is an acute respiratory disease which emerged globally in late 2019, early 2020. The virus is transmitted person-to-person by both symptomatic and asymptomatic persons who exhale droplets and particles that contain the SARS-COV-2 virus. COVID-19 was declared a global pandemic on March 11, 2020. Utah saw its first cases in March of 2020. As of December 31, 2020 there were 300,332 cases and 1,365 deaths in Utah. Due to under-reporting, early scarcity in testing availability, and asymptomatic people who were not tested, the true burden of COVID-19 cases and deaths is likely above these reported numbers. COVID-19 precautions like social distancing, isolation, quarantine, and changes in healthcare-seeking behaviors during the pandemic likely impacted the reporting of other communicable diseases in Utah. While this report provides a high-level summary of reported cases, more in-depth COVID-19 data from 2020 and beyond can be found on the Utah COVID-19 dashboard.

2.2 Salmonella

Between June and September 2020, the Utah Department of Health and Human Services investigated a large outbreak of Salmonella Newport related to onions. There were 115 cases in Utah more than 1,000 cases nationally. Of the 115 Utah cases, 29 were hospitalized and there were no deaths. Recalls were issued for multiple types of onions and other products containing the contaminated onions. This was one of the largest outbreaks of Salmonella in Utah.

2.3 Influenza

Influenza surveillance for the 2020–2021 influenza season began on October 4, 2020. This report contains information from October 4th, 2020 through September 9th, 2021 (MMWR Week 36). Every flu season, influenza results in the hospitalization of hundreds to thousands of Utahns . The 2020–2021 influenza season was unique due to the COVID-19 precautions implemented during this same time. As a result, Utah and the rest of the country experienced unprecedented low levels of influenza activity. The 5-year average Influenza-Associated Hospitalization (IAH) rate before the 2020–2021 season was 51.77 admissions per 100,000 people (1,606 admissions) through week 36. In

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2020-2021, Utah recorded a rate of 0.62 admissions per 100,000, a total of 20 total cumulative hospitalizations for the year. The past five seasons typically peaked in influenza-like-illness (ILI) between December and March, with 3.17–7.24% outpatient visits due to ILI. The 2020–2021 season was highly irregular in that ILI decreased between these months, and increased between May and September with a maximum of 2.69% during week 36. It is worth noting that syndromic surveillance systems may have also been signaling increases in other respiratory illnesses with overlapping symptoms such as COVID-19 and RSV. Of the 85 influenza labs reported in Utah (the fewest number of labs recorded since 2005), 50.6% were influenza A. A total of 3 influenza A labs were subtyped; 2 were H1N1, and 1 was H3N2. Influenza A and B were uniformly distributed throughout the season, with a slight peak in labs overall during the week of September 29th.

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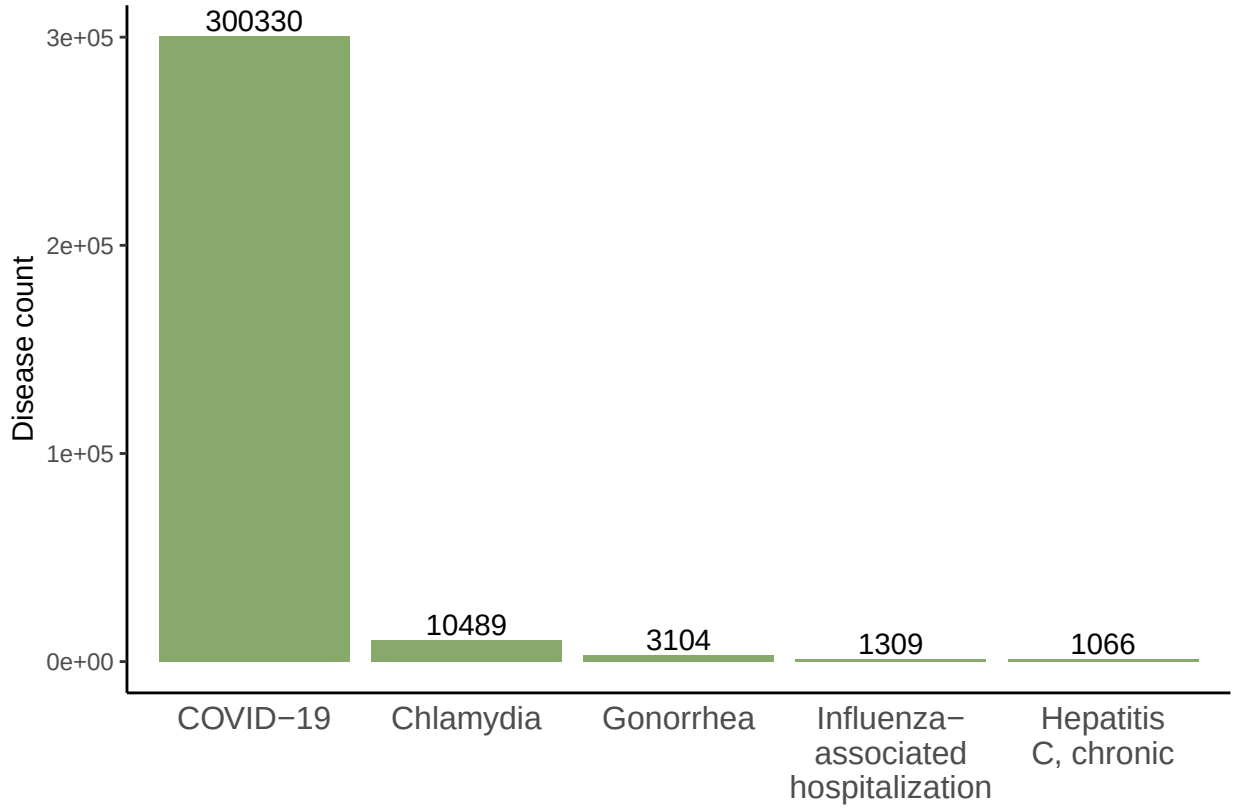
3 Overall state disease activity

3.1 Top diseases of 2020

The top five highest disease counts in the state of Utah were:

1. **COVID-19** with **300,330** cases.
2. **Chlamydia** with **10,489** cases.
3. **Gonorrhea** with **3,104** cases.
4. **Influenza-associated hospitalization** with **1,309** cases.
5. **Hepatitis C, chronic** with **1,066** cases.



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3.2 2020 State disease table

The State disease table includes the 2020 Count[4], Previous 5-Year Count Average[5], Utah 2020 Rate[6], and the Disease Trend[7].

Disease	2020 count	Previous 5 year count average	Utah 2020 rate	Trend
Acinetobacter species resistant to carbapenems	20	13.6	0.6	Consistent
Acute flaccid myelitis	0	1.6	0	Consistent
Adverse event resulting from smallpox vaccination	0	0.2	0	Consistent
Anthrax	0	0	0	Not enough information
Arbovirus infection (not including West Nile, Dengue, or Yellow fever)	0	1	0	Consistent
Babesiosis	0	0.4	0	Consistent
Botulism, total	3	4.6	*0.1*	Consistent
Botulism, foodborne	0	0.8	0	Consistent
Botulism, infant	3	3.6	*0.1*	Consistent
Botulism, other (wound/unspecified)	0	0.2	0	Consistent
Brucellosis	1	1	0	Consistent
Campylobacteriosis	412	536.6	*12.5*	Decreasing
Chagas disease	2	0.6	0.1	Consiistent
Chancroid	0	0	0	Consistent
Chickenpox	89	212	*2.7*	Decreasing
Chlamydia	10,489	9,966.8	319.3	Consistent
Cholera	0	0	0	Not enough information
Coccidioidomycosis	47	56.6	1.4	Consistent
Colorado tick fever	0	0.6	0	Consistent

[4]Count is the total disease count in 2020. For influenza, count is the total disease count in the 2019–2020 influenza season

[5]The average disease counts for the 5 years prior to 2020

[6]The rate indicates infections per 100,000 population. Caution should be used when interpreting rates in italics; the estimate has a relative standard error greater than 30% and does not meet DHSS standards for reliability.

[7]Changes in trend are based on statistical significance (using a p-value of 0.10), i.e., higher or lower than the five-year average.

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(continued)

Disease	2020 Count	Previous 5 Year Count Average	Utah 2020 Rate	Trend
COVID-19	300,332	1.8	9,143.1	Increasing
Creutzfeldt-Jakob disease and other transmissible human spongiform encephalopathies	6	5.2	*0.2*	Consistent
Cryptosporidiosis	125	173.2	*3.8*	Consistent
Cyclosporiasis	12	13.4	0.4	Consistent
Dengue	3	6.2	*0.1*	Consistent
Diphtheria	1	0	0	Not enough information
Ehrlichiosis/anaplasmosis	0	1	0	Consistent
Encephalitis	1	7	0	Decreasing
Enterobacter species resistant to carbapenems	1	1	0	Consistent
Escherichia coli resistant to carbapenems	3	2.6	*0.1*	Consistent
Giardiasis	153	201.6	*4.7*	Consistent
Gonorrhea	3,104	2,393.6	94.5	Consistent
HIV infection	135	126.2	*4.1*	Consistent
Haemophilus influenzae, all ages, invasive disease	36	53.2	1.1	Decreasing
nonserotype B, age <5 years	5	10	*0.2*	Consistent
serotype B, age <5 years	1	0.2	0	Consistent
unknown serotype, age <5 years	1	0.6	0	Consistent
Hansen's disease (Leprosy)	0	0.8	*0*	Consistent
Hantavirus infection	1	1.8	0	Consistent
Hemolytic uremic syndrome, post-diarrheal	6	8.4	0.2	Consistent
Hepatitis A	12	67	*0.4*	Consistent
Hepatitis B, acute	11	20.4	0.3	consistent
Hepatitis B, chronic	191	201.6	*5.8*	Decreasing
Hepatitis C, acute	148	106.8	*4.5*	Consistent
Hepatitis C, chronic	1,072	1,543.2	32.6	Decreasing
Hepatitis, other viral	1	1	*0*	Consistent

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(continued)

Disease	2020 Count	Previous 5 Year Count Average	Utah 2020 Rate	Trend
Influenza-associated hospitalization	1,309	1,669.8	39.9	Consistent
Influenza-associated pediatric mortality	0	0	0	Not enough information
Klebsiella species resistant to carbapenems	6	6	*0.2*	Consistent
Legionellosis	32	32.8	1	Consistent
Leptospirosis	3	1.4	*0.1*	Consistent
Listeriosis	7	2.8	*0.2*	Consistent
Lyme disease	14	21	0.4	Consistent
Malaria	4	8.6	*0.1*	Consistent
Measles	0	0.8	0	Consistent
Meningitis, aseptic	0	62.4	0	Consistent
Meningitis, bacterial, other	20	29.8	0.6	Consistent
Meningitis, viral	8	77.6	*0.2*	Decreasing
Meningococcal disease (Neisseria meningitidis)	1	2.6	0	Consistent
Mumps	3	16.2	0.1	Consistent
Pertussis	156	412.6	*4.7*	Consistent
Plague	0	0.2	0	Consistent
Poliomyelitis, paralytic and nonparalytic	0	0	0	Not enough information
Psittacosis	0	0.2	0	Consistent
Q fever	5	2.4	*0.2*	Consistent
Rabies, animal	9	17.6	*0.3*	Consistent
Rabies, human	0	0.2	0	Consistent
Relapsing fever, tick-borne and louse-borne	0	0.8	0	Consistent
Rubella	0	0	0	Consistent
Rubella, congenital syndrome	0	0	0	Not enough information
Salmonellosis	351	373.8	*10.7*	Consistent
Severe acute respiratory syndrome (SARS)	0	0	0	Not enough information
Shiga toxin-producing Escherichia coli (STEC) infection	192	139.4	*5.8*	Consistent

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Disease	2020 Count	Previous 5 Year Count Average	Utah 2020 Rate	Trend
Shigellosis	50	57.8	1.5	Consistent
Smallpox	0	0	0	Not enough information
Spotted fever rickettsiosis (including Rocky Mountain spotted fever)	1	7.8	0	Decreasing
Streptococcal disease, invasive, group A	196	217.6	6	Consistent
Streptococcal disease, invasive, group B	263	217	8	Consistent
Streptococcal disease, invasive, other	426	384.8	13	Consistent
Streptococcus pneumoniae, invasive disease	162	234.6	4.9	Decreasing
age <5 years	13	18.6	0.4	Consistent
Syphilis, congenital	1	1	0	Consistent
Syphilis, early (infection < 12 months)	133	116.4	4	Consistent
primary and secondary	133	116.4	4	Increasing
early latent	0	0	0	Not enough information
Syphilis, latent (infection > 12 months)	0	87.8	0	Consistent
Tetanus	0	0	0	Not enough information
Toxic shock syndrome (staphylococcal or streptococcal)	29	29.8	0.9	Consistent
Trichinellosis	0	0.2	0	Consistent
Tuberculosis, active	29	26.2	0.9	Consistent
Tularemia	0	3.4	0	Consistent
Typhoid fever	0	2.2	0	Consistent
Vancomycin-resistant staphylococcus aureus (VRSA)	0	0	0	Not enough information
Vibriosis	8	14.6	0.2	Consistent
Viral hemorrhagic fevers	0	0	0	Not enough information

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(continued)

Disease	2020 Count	Previous 5 Year Count Average	Utah 2020 Rate	Trend
West Nile virus, total	2	23	*0.1*	Consistent
Yellow fever	0	0	0	Not enough information
Zika virus, congenital infection	0	0	0	Not enough information
Zika virus disease	2	11.8	*0.1*	Consistent

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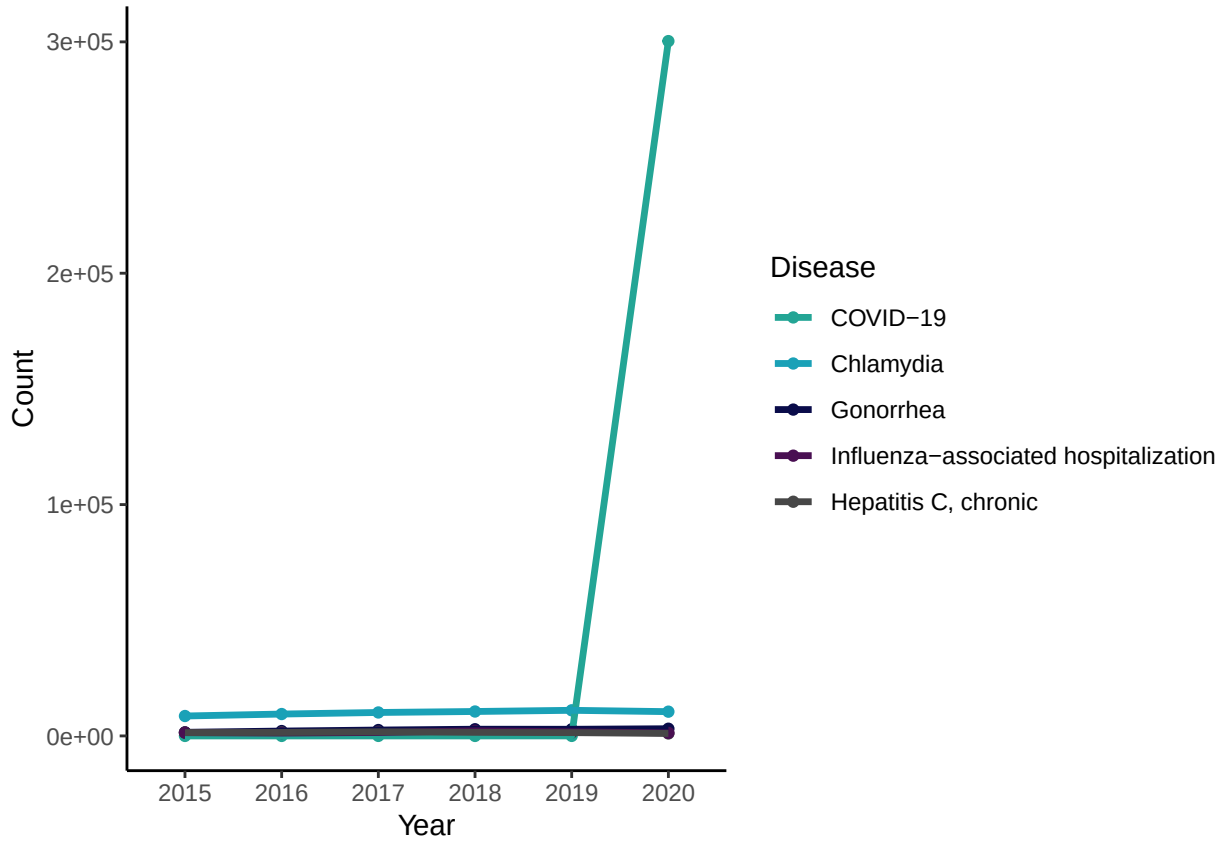
4 Yearly disease comparison

4.1 Top 5 disease trends by count



4.2 Yearly disease counts [8]

Disease	2015	2016	2017	2018	2019	2020
Acinetobacter species resistant to carbapenems	4	4	2	26	32	20
Acute flaccid myelitis	1	3	2	1	1	0
Adverse event resulting from smallpox vaccination	0	0	1	0	0	0
Anthrax	0	0	0	0	0	0
Arbovirus infection (not including West Nile, Dengue, or Yellow fever)	4	0	0	0	1	0

[8]Note about hepatitis B and hepatitis C: From 2014–2016, only confirmed cases were reported; in 2018–2020 confirmed and probable cases were reported.

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(continued)

Disease	2015	2016	2017	2018	2019	2020
Babesiosis	0	0	1	1	0	0
Botulism, total	8	6	1	3	5	3
Botulism, foodborne	2	0	0	1	1	0
Botulism, infant	6	5	1	2	4	3
Botulism, other (wound/unspecified)	0	1	0	0	0	0
Brucellosis	3	0	0	0	2	1
Campylobacteriosis	438	504	597	562	582	412
Chagas disease	1	0	0	0	2	2
Chancroid	0	0	0	0	0	0
Chickenpox	217	229	253	196	165	89
Chlamydia	8,611	9,459	10,135	10,558	11,071	10,489
Cholera	0	0	0	0	0	0
Coccidioidomycosis	56	42	80	54	51	47
Colorado tick fever	0	1	0	1	1	0
COVID-19	0	0	2	0	7	300,332
Creutzfeldt-Jakob disease and other transmissible human spongiform encephalopathies	9	2	7	5	3	6
Cryptosporidiosis	176	170	125	197	198	125
Cyclosporiasis	8	2	14	21	22	12
Dengue	2	7	6	6	10	3
Diphtheria	0	0	0	0	0	1
Ehrlichiosis/anaplasmosis	2	0	2	1	0	0
Encephalitis	4	8	8	6	9	1
Enterobacter species resistant to carbapenems	2	2	0	1	0	1
Escherichia coli resistant to carbapenems	0	0	1	6	6	3
Giardiasis	205	161	214	233	195	153
Gonorrhea	1,560	2,100	2,541	2,895	2,872	3,104
HIV infection	123	138	117	119	134	135
Haemophilus influenzae, all ages, invasive disease	51	40	64	56	55	36
nonserotype B, age <5 years	9	8	10	8	15	5
serotype B, age <5 years	0	1	0	0	0	1
unknown serotype, age <5 years	0	0	1	1	1	1
Hansen's disease (Leprosy)	0	0	1	2	1	0

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Disease	2015	2016	2017	2018	2019	2020
Hantavirus infection	2	3	2	1	1	1
Hemolytic uremic syndrome, post-diarrheal	4	6	12	12	8	6
Hepatitis A	8	12	160	135	20	12
Hepatitis B, acute	11	5	19	36	31	11
Hepatitis B, chronic	63	74	299	304	268	191
Hepatitis C, acute	32	81	101	155	165	148
Hepatitis C, chronic	1,434	1,508	1,793	1,554	1,427	1,072
Hepatitis, other viral	1	0	1	3	0	1
Influenza-associated hospitalization	1,407	1,237	1,490	2,205	1804	1,310
Influenza-associated pediatric mortality	2	1	0	1	6	0
Klebsiella species resistant to carbapenems	8	5	7	4	6	6
Legionellosis	30	30	31	34	39	32
Leptospirosis	0	1	1	2	3	3
Listeriosis	0	4	6	2	2	7
Lyme disease	12	19	26	28	20	14
Malaria	6	8	9	10	10	4
Measles	1	0	3	0	0	0
Meningitis, aseptic	29	49	96	90	48	0
Meningitis, bacterial, other	15	12	39	43	40	20
Meningitis, viral	62	77	95	78	78	8
Meningococcal disease (Neisseria meningitidis)	2	3	2	3	3	1
Mumps	0	2	40	13	26	3
Pertussis	507	268	448	435	405	156
Plague	1	0	0	0	0	0
Poliomyelitis, paralytic and nonparalytic	0	0	0	0	0	0
Psittacosis	0	0	1	0	0	0
Q fever	0	2	2	5	3	5
Rabies, animal	21	18	23	14	12	9
Rabies, human	0	0	3	0	1	0
Relapsing fever, tick-borne and louse-borne	0	0	3	0	1	0
Rubella	0	0	0	0	0	0
Rubella, congenital syndrome	0	0	0	0	0	0
Salmonellosis	460	332	388	364	325	351

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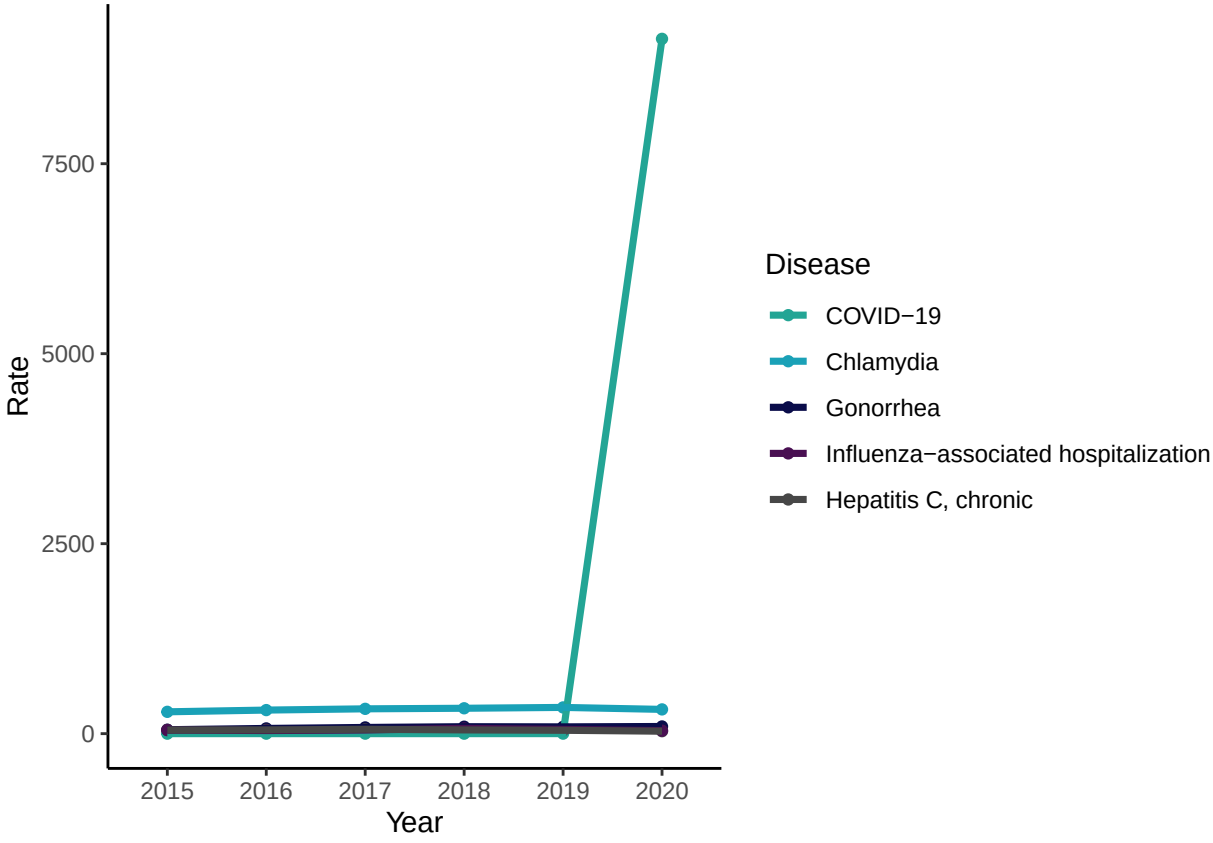
Disease	2015	2016	2017	2018	2019	2020
Severe acute respiratory syndrome (SARS)	0	0	0	0	0	0
Shiga toxin-producing Escherichia coli (STEC) infection	97	78	140	197	185	192
Shigellosis	36	79	44	64	66	50
Smallpox	0	0	0	0	0	0
Spotted fever rickettsiosis (including Rocky Mountain spotted fever)	5	5	10	9	10	1
Streptococcal disease, invasive, group A	169	217	222	244	236	196
Streptococcal disease, invasive, group B	156	200	224	257	248	263
Streptococcal disease, invasive, other	368	421	432	319	384	426
Streptococcus pneumoniae, invasive disease	191	246	268	247	221	162
age <5 years	14	24	17	22	16	13
Syphilis, congenital	0	0	0	1	4	1
Syphilis, early (infection < 12 months)	66	93	117	168	138	133
primary & secondary	66	93	117	168	138	133
early latent	0	0	0	0	0	0
Syphilis, latent (infection > 12 months)	90	106	97	146	0	0
Tetanus	0	0	0	0	0	0
Toxic shock syndrome (staphylococcal or streptococcal)	24	34	31	34	26	29
Trichinellosis	1	0	0	0	0	0
Tuberculosis, active	37	20	29	18	27	29
Tularemia	5	5	7	0	0	0
Typhoid fever	1	1	0	2	7	0
Vancomycin-resistant Staphylococcus aureus (VRSA)	0	0	0	0	0	0
Vibriosis	9	11	16	16	21	8
Viral hemorrhagic fevers	0	0	0	0	0	0
West Nile virus, total	8	13	62	11	21	2
Yellow fever	0	0	0	0	0	0
Zika virus, congenital infection	0	0	0	0	0	0
Zika virus disease	1	29	9	11	9	2

4.3 Top 5 disease trends by rate per 100,000 people



4.4 Yearly disease rates per 100,000 people

Rates are defined as infections per 100,000 population. Caution should be used when interpreting rates listed in *italics*. The estimate has a relative standard error greater than 30% and does not meet the DHHS standards for reliability.

Note about hepatitis B and hepatitis C: From 2014–2016, only confirmed cases were reported; in 2018–2020 confirmed and probable cases were reported.

Disease	2015	2016	2017	2018	2019	2020
Acinetobacter species resistant to carbapenems	*0.1*	*0.1*	*0.1*	0.8	1	0.6
Acute flaccid myelitis	0	*0.1*	*0.1*	0	0	0
Adverse event resulting from smallpox vaccination	0	0	0	0	0	0
Anthrax	0	0	0	0	0	0

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(continued)

Disease	2015	2016	2017	2018	2019	2020
Arbovirus infection (not including West Nile, Dengue, or Yellow fever)	*0.1*	0	0	0	0	0
Babesiosis	0	0	0	0	0	0
Botulism, total	*0.3*	*0.2*	0	*0.1*	*0.2*	*0.1*
Botulism, foodborne	*0.1*	0	0	0	0	0
Botulism, infant	*0.2*	*0.2*	0	*0.1*	*0.1*	*0.1*
Botulism, other (wound/unspecified)	0	0	0	0	0	0
Brucellosis	*0.1*	0	0	0	*0.1*	0
Campylobacteriosis	14.6	16.5	19.2	17.8	18.2	12.5
Chagas disease	0	0	0	0	*0.1*	*0.1*
Chancroid	0	0	0	0	0	0
Chickenpox	7.2	7.5	8.2	6.2	5.1	2.7
Chlamydia	287.4	310.2	326.7	334	345.3	319.3
Cholera	0	0	0	0	0	0
Coccidioidomycosis	1.9	1.4	2.6	1.7	1.6	1.4
Colorado tick fever	0	0	0	0	0	0
COVID-19	0	0	*0.1*	0	*0.2*	9,143.1
Creutzfeldt-Jakob disease and other transmissible human spongiform encephalopathies	*0.3*	*0.1*	*0.2*	*0.2*	*0.1*	*0.2*
Cryptosporidiosis	5.9	5.6	4	6.2	6.2	3.8
Cyclosporiasis	*0.3*	*0.1*	*0.5*	*0.7*	0.7	0.4
Dengue	*0.1*	*0.2*	*0.2*	*0.2*	*0.3*	*0.1*
Diphtheria	0	0	0	0	0	0
Ehrlichiosis/anaplasmosis	*0.1*	0	*0.1*	0	0	0
Encephalitis	*0.1*	*0.3*	*0.3*	*0.2*	*0.3*	0
Enterobacter species resistant to carbapenems	*0.1*	*0.1*	0	0	0	*0.1*
Escherichia coli resistant to carbapenems	0	0	0	*0.2*	*0.2*	*0.1*
Giardiasis	6.8	5.3	6.9	7.4	6.1	4.7
Gonorrhea	52.1	68.9	81.9	91.6	89.6	94.5
HIV infection	4.1	4.5	3.8	3.8	4.2	4.1
Haemophilus influenzae, all ages, invasive disease	1.7	1.3	2.1	1.8	1.7	1.1
nonserotype B, age <5 years	*0.3*	*0.3*	*0.3*	*0.3*	*0.5*	*0.2*
serotype B, age <5 years	0	0	0	0	0	0
unknown serotype, age <5 years	0	0	0	0	0	0
Hansen's disease (Leprosy)	0	0	0	*0.1*	0	0
Hantavirus infection	*0.1*	*0.1*	*0.1*	0	0	0

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(continued)

Disease	2015	2016	2017	2018	2019	2020
Hemolytic uremic syndrome, post-diarrheal	*0.1*	*0.2*	*0.4*	*0.4*	*0.2*	*0.2*
Hepatitis A	*0.3*	0.4	5.2	4.3	0.6	0.4
Hepatitis B, acute	0.4	*0.2*	0.6	1.1	1	*0.3*
Hepatitis B, chronic	2.1	2.4	9.6	9.6	8.4	5.8
Hepatitis C, acute	1.1	2.7	3.3	4.9	5.1	4.5
Hepatitis C, chronic	47.8	49.4	57.8	49.2	44.5	32.6
Hepatitis, other viral	0	0	0	*0.1*	0	0
Influenza-associated hospitalization	47	40.6	48	69.8	56.3	39.9
Influenza-associated pediatric mortality	*0.1*	*0.1*	0	0	0	0
Klebsiella species resistant to carbapenems	*0.3*	*0.2*	*0.2*	*0.1*	*0.2*	*0.2*
Legionellosis	1	1	1	1.1	1.2	1
Leptospirosis	0	0	0	*0.1*	*0.1*	*0.1*
Listeriosis	0	*0.1*	*0.2*	*0.1*	*0.1*	*0.2*
Lyme disease	0.4	0.6	0.8	0.9	0.6	0.4
Malaria	*0.2*	*0.3*	*0.3*	*0.3*	*0.3*	*0.1*
Measles	0	0	*0.1*	0	0	0
Meningitis, aseptic	1	1.6	3.1	2.8	1.5	0
Meningitis, bacterial, other	0.5	0.4	1.3	1.4	1.2	*0.6*
Meningitis, viral	2.1	2.5	3.1	2.5	2.4	*0.2*
Meningococcal disease (Neisseria meningitidis)	*0.1*	*0.1*	*0.1*	*0.1*	*0.1*	0
Mumps	0	*0.1*	1.3	0.4	0.8	0.1
Pertussis	16.9	8.8	14.4	13.8	12.6	4.7
Plague	0	0	0	0	0	0
Poliomyelitis, paralytic and nonparalytic	0	0	0	0	0	0
Psittacosis	0	0	0	0	0	0
Q fever	0	*0.1*	*0.1*	*0.2*	*0.1*	*0.2*
Rabies, animal	0.7	0.6	0.7	0.4	0.4	0.3
Rabies, human	0	0	0	0	0	0
Relapsing fever, tick-borne and louse-borne	0	0	*0.1*	0	0	0
Rubella	0	0	0	0	0	0
Rubella, congenital syndrome	0	0	0	0	0	0
Salmonellosis	15.4	10.9	12.5	11.5	10.1	10.7
Severe acute respiratory syndrome (SARS)	0	0	0	0	0	0

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(continued)

Disease	2015	2016	2017	2018	2019	2020
Shiga toxin-producing Escherichia coli (STEC) infection	3.2	2.6	4.5	6.2	5.8	5.8
Shigellosis	1.2	2.6	1.4	2	2.1	1.5
Smallpox	0	0	0	0	0	0
Spotted fever rickettsiosis (including Rocky Mountain spotted fever)	*0.2*	*0.2*	*0.3*	*0.3*	*0.3*	0
Streptococcal disease, invasive, group A	5.6	7.1	7.2	7.7	7.4	6
Streptococcal disease, invasive, group B	5.2	6.6	7.2	8.1	7.7	8
Streptococcal disease, invasive, other	12.3	13.8	13.9	10.1	12	13
Streptococcus pneumoniae, invasive disease	6.4	8.1	8.6	7.8	6.9	4.9
age <5 years	0.5	0.8	0.5	0.7	0.5	0.4
Syphilis, congenital	0	0	0	0	*0.1*	0
Syphilis, early (infection < 12 months)	2.2	3	3.8	5.3	4.3	4
primary & secondary	2.2	3	3.8	5.3	4.3	4
early latent	0	0	0	0	0	0
Syphilis, latent (infection > 12 months)	3	3.5	3.1	4.6	0	0
Tetanus	0	0	0	0	0	0
Toxic shock syndrome (staphylococcal or streptococcal)	0.8	1.1	1	1.1	0.8	0.9
Trichinellosis	0	0	0	0	0	0
Tuberculosis, active	1.2	0.7	0.9	0.6	0.8	0.9
Tularemia	*0.2*	*0.2*	*0.2*	0	0	0
Typhoid fever	0	0	0	*0.1*	*0.2*	0
Vancomycin-resistant Staphylococcus aureus (VRSA)	0	0	0	0	0	0
Vibriosis	*0.3*	0.4	0.5	0.5	0.7	*0.2*
Viral hemorrhagic fevers	0	0	0	0	0	0
West Nile virus, total	*0.3*	0.4	2	*0.3*	0.7	*0.1*
Yellow fever	0	0	0	0	0	0
Zika virus, congenital infection	0	0	0	0	0	0
Zika virus disease	0	1	*0.3*	*0.3*	*0.3*	*0.1*

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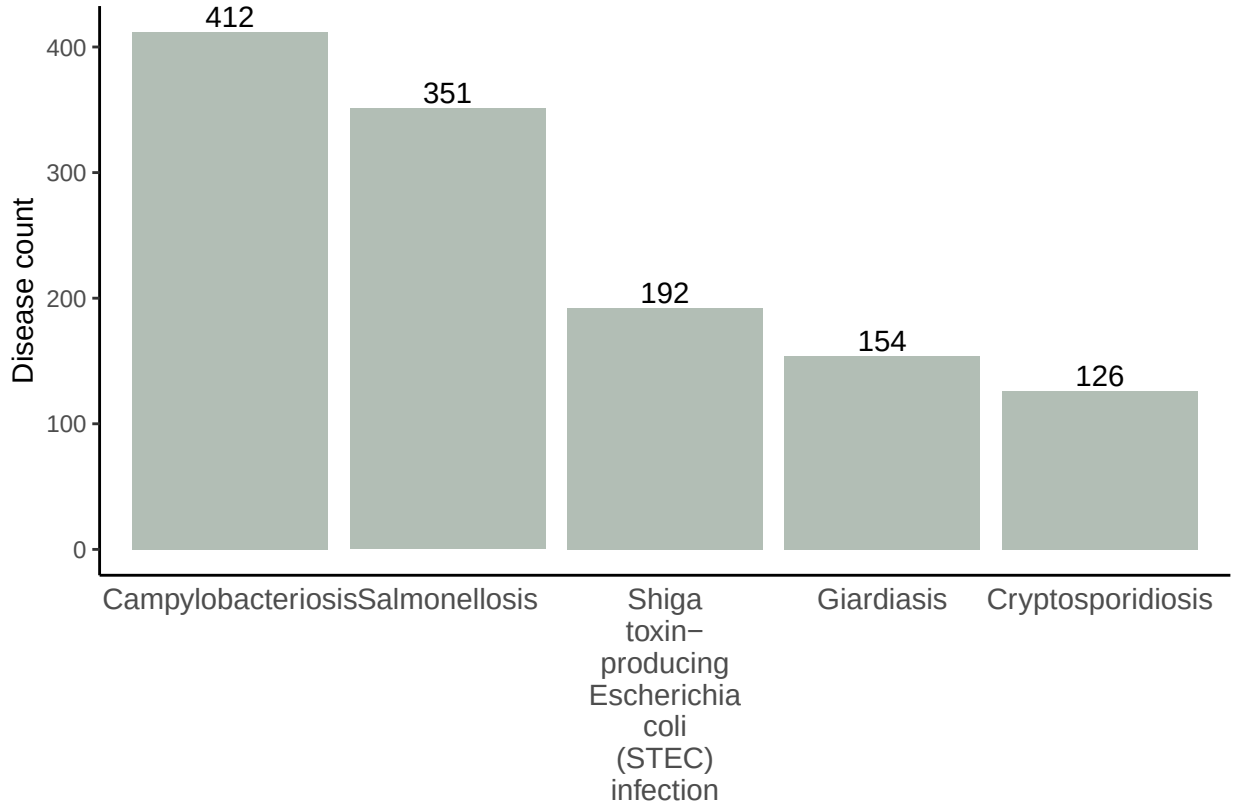
5 Diseases by type

5.1 Enteric (intestinal) diseases

Enteric diseases are infections commonly caused by micro-organisms that enter the body through the mouth through contaminated food or water, contact with animals or their environments, or contact with the feces of another infected human. For more information about enteric diseases, see the CDC website.

5.1.1 The top 5 enteric diseases, 2020

Diseases highlighted in green indicate those diseases that were also in the top 5 confirmed cases across all reportable communicable diseases in Utah.



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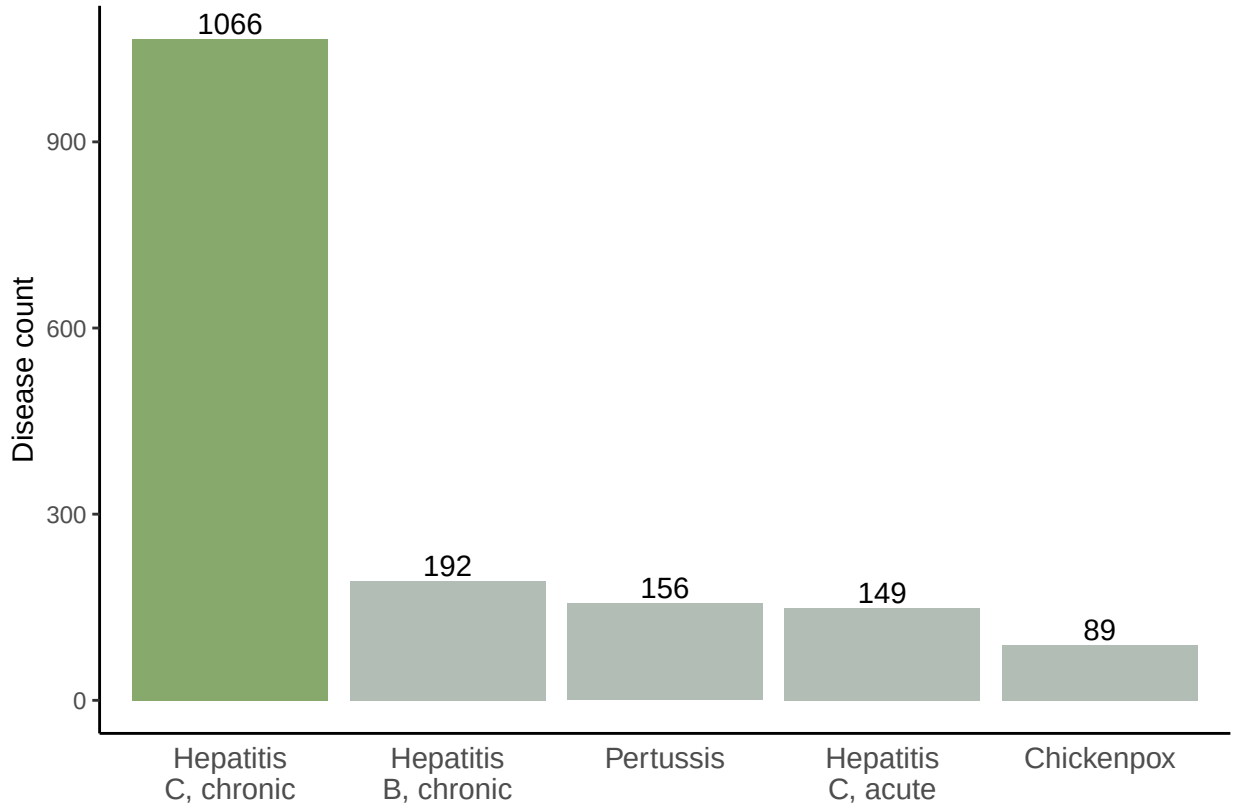
5.2 Vaccine-preventable diseases & viral hepatitis

Vaccine-preventable diseases (VPD) are infectious diseases that can be prevented by vaccines. For more information on VPDs, see the CDC webpage. Hepatitis is inflammation of the liver and is often caused by a virus. For more information, see the CDC webpage for viral hepatitis.

5.2.1 The top 5 VPDs/hepatitis infections, 2020

Diseases highlighted in green indicate those diseases that were also in the top 5 confirmed cases across all reportable communicable diseases in Utah.



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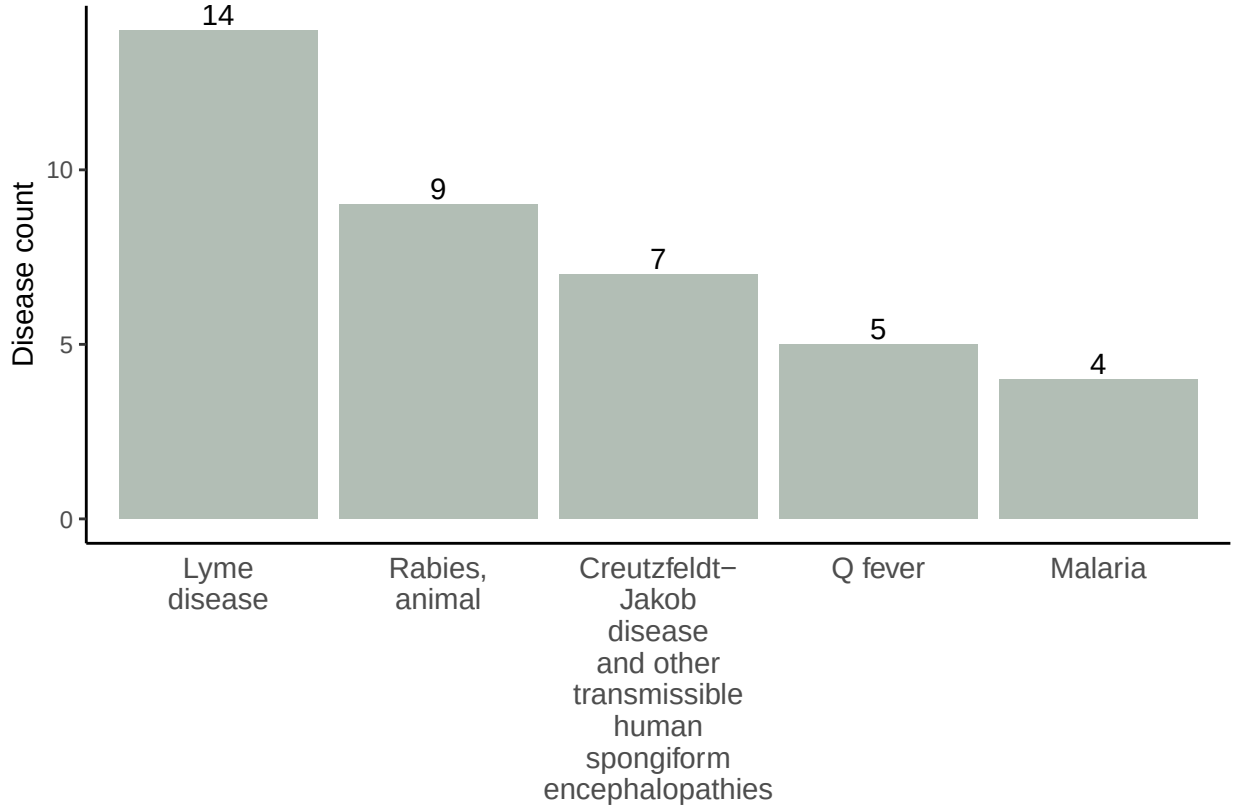
5.3 Zoonotic diseases

Zoonotic diseases are caused by infectious organisms (bacteria, viruses, parasites) spread to humans from animals, often through vectors such as ticks and mosquitoes. More information can be found on the CDC zoonotic webpage.

5.3.1 The top 5 zoonotic diseases, 2020

Diseases highlighted in green indicate those diseases that were also in the top 5 confirmed cases across all reportable communicable diseases in Utah.



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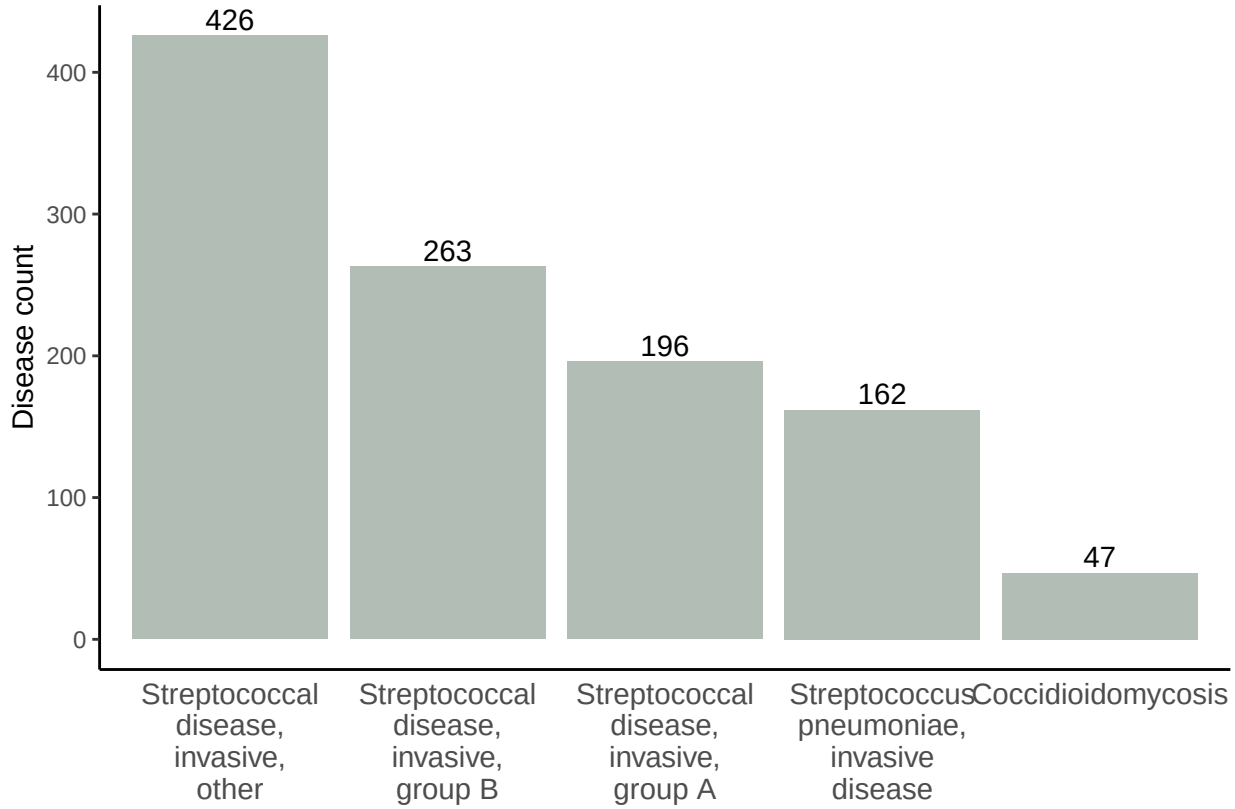
5.4 Invasive diseases and general reportable diseases

Invasive diseases are those in which the infectious agents (eg. bacteria) infect parts of the body normally free from germs, such as the bloodstream or cerebrospinal fluid. For more information, see the CDC webpage

5.4.1 The top 5 invasive and other diseases, 2020

Diseases highlighted in green indicate those diseases that were also in the top 5 confirmed cases across all reportable communicable diseases in Utah.



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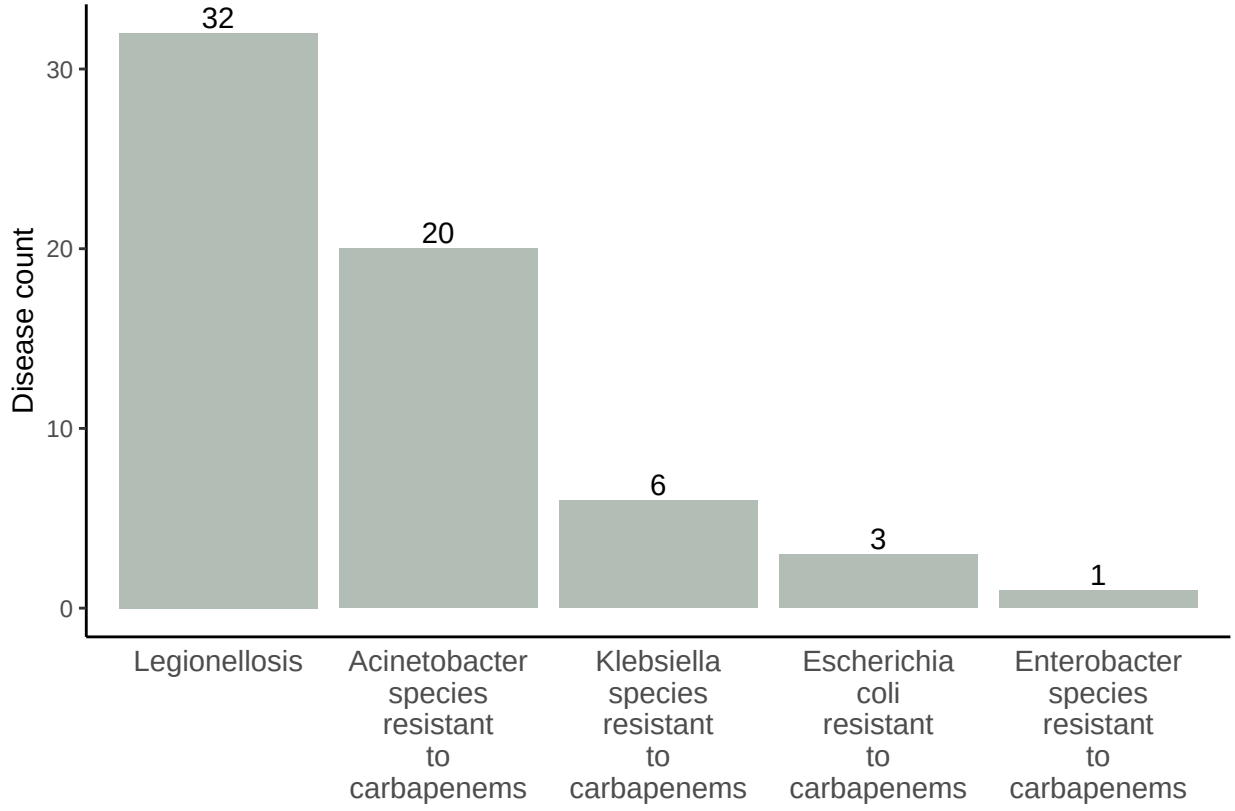
5.5 Healthcare-associated infections

Healthcare-associated infections (HAIs) include illnesses such as central line-associated bloodstream infections, catheter-associated urinary tract infections, and ventilator-associated pneumonia. Infections may also occur at surgical sites. The DHHS works with healthcare facilities to monitor and prevent these infections and improve patient safety.

5.5.1 The top 5 healthcare-associated infections, 2020

Diseases highlighted in green indicate those diseases that were also in the top 5 confirmed cases across all reportable communicable diseases in Utah[9].



[9]Includes community-acquired and healthcare-associated cases of legionellosis.

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5.6 Sexually transmitted diseases

Sexually transmitted diseases (STDs) are very common and are passed from one person to another through sexual activity including vaginal, oral, and anal sex.

5.6.1 The top 5 sexually transmitted diseases of 2020

Diseases highlighted in green indicate those diseases that were also in the top 5 reported cases across all reportable communicable diseases in Utah.