

2016 Communicable Disease Summary

Columbia/Boone County Department
of Public Health and Human Services

Boone County, Missouri

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Boone County

Communicable Disease Summary

2016

The Missouri Department of Health and Senior Services (DHSS), under reporting rule 19 CSR 20-20.020, designates what diseases, disabilities, conditions and findings that must be reported to the local health authority or the DHSS. In compliance with this rule, data used for this report was collected from multiple sources, including medical providers, laboratories, and hospitals. Both timely reporting and rapid investigations are important for identifying possible outbreaks, assuring appropriate preventive treatment and education, and guiding the planning and evaluation of disease prevention and control programs.

In 2016, approximately 1,600 disease case reports were received at the Columbia/Boone County Public Health and Human Services Department (PHHS), of which 1,053 met the DHSS guidelines to be considered a case. This number excluded influenza cases (857) and sexually transmitted disease (STD) cases (1368) reported during 2016. Influenza and STD's are addressed in separate reports available on the PHHS website:

<https://www.gocolumbiamo.com/Health/PublicHealthandHumanServicesPublications.php>.

Adding the disease case reports received, flu cases and STD's, PHHS received approximately 3800 reports during 2016. While not all are reflected in the annual case count, they reflect staff time spent on investigations to determine the status of the report. It is also important to remember that the number of reported cases of communicable diseases may not represent the true total number of cases that occur in a county. Diseases with milder symptoms, such as gastrointestinal, may go undiagnosed and unreported either because the ill person may not see a doctor, or the doctor may treat without a lab confirmation. Diseases which cause severe symptoms, such as botulism, are more likely to be diagnosed and reported. Furthermore, some conditions, such as animal bites, do not require lab confirmation and often the person bitten does not seek medical care. When a disease becomes a newsworthy event, nationally and/or locally, the attention may lead to an increase in total cases reported in a year. Once attention is drawn to the symptoms, there is increased awareness by patients to seek medical care, and increased awareness by physicians to test, find and report cases. A recent example of this would be the mumps outbreak of 2016.

Table 1 lists the 2016 confirmed case counts for Boone County, and Table 2 shows the confirmed communicable diseases reported in Boone County from 2012-2016 along with the five year trend.

A list of all the diseases and conditions reportable in Missouri can be found on the Missouri Department of Health and Senior Services web site:

<http://health.mo.gov/living/healthcondiseases/communicable/communicabledisease/pdf/reportablediseaselist2.pdf>.

19 CSR 20-20 can be found at the following site:

<http://s1.sos.mo.gov/cmsimages/adrules/csr/current/19csr/19c20-20.pdf>.

Table 1:

2016 Boone County, Missouri Communicable Disease Summary

Reported Cases of Communicable Diseases*

Boone County, Missouri 2016

DISEASE/CONDITION	Reported Cases Counts**
ANIMAL BITES	258
BRUCELOSIS	1
CAMPYLOBACTERIOSIS	47
COCCIDIOIDOMYCOSIS	1
CRYPTOSPORIDIOSIS	22
CYCLOSPORIASIS	2
E COLI SHIGA TOXIN POSITIVE	10
E. COLI O157 H7	11
EHRlichIA CHAFFEENSIS	4
GIARDIASIS	19
HAEMOPHILUS INFLUENZAE, INVASIVE	4
HEMOLYTIC UREMIC SYNDROME	3
HEPATITIS B (PREGANCY) PRENATAL	2
HEPATITIS B ACUTE	1
HEPATITIS B CHRONIC INFECTION	14
HEPATITIC C ACUTE	2
HEPATITIS C CHRONIC INFECTION	101
MENINGOCOCCAL DISEASE	1
MOTT (MYCOBACTERIUM OTHER THAN TUBERCULOSIS)	28
MUMPS	288
PERTUSSIS	3
RABIES ANIMAL	3
RABIES POST EXPOSURE PROPHYLAXIS	19
ROCKY MOUNTAIN SPOTTED FEVER	14
SALMONELLOSIS	25
SHIGELLOSIS	9
STAPH AUREUS VISA	1
STREP DISEASE, GROUP A INVASIVE	3
STREP DISEASE, INVASIVE	4
STREP PNEUMONIAE, <5 YEARS, INVASIVE	1
STREP PNEUMONIAE, DRUG-RESISTANT	1
TUBERCULOSIS DISEASE	4
TUBERCULOSIS INFECTION	139
TULAREMIA	2
VARICELLA (CHICKEN POX)	5
ZIKA	1
TOTAL	1053

*Excludes reported STDs (gonorrhea, chlamydia, syphilis and HIV) and influenza cases.

**Reported case counts are confirmed and probable cases

Table 2:

2012-2016 Reported Diseases/Conditions Boone County With 5 Year Mean

DISEASE/CONDITION	2012	2013	2014	2015	2016	5 YR Mean
ANAPLASMA PHAGOCYTOPHILUM	3	0	1	1	0	1.0
ANIMAL BITES	305	292	267	297	258	284
BRUCELLOSIS	0	1	0	0	1	0.4
CAMPYLOBACTERIOSIS	26	30	23	25	47	30.4
CHIKUNGUNYA	0	0	1	1	0	0.2
COCCIDIOIDOMYCOSIS	1	1	0	2	1	1.0
CREUTZFELDT-JAKOB DISEASE (CJD)	0	1	0	0	0	0.2
CRYPTOSPORIDIOSIS	9	3	8	13	22	11.2
CYCLOSPORIASIS	0	0	0	0	2	0.4
DENGUE FEVER	0	1	0	0	0	0.2
E COLI SHIGA TOXIN POSITIVE	7	2	3	9	10	6.2
E. COLI O157 H7	13	6	1	3	11	6.8
EHRlichIA CHAFFEENSIS	1	13	10	3	4	6.2
EHRlichIA EWINGII	0	1	0	0	0	0.2
EHRlichIOSIS ANAPLASMOSIS UNDETERMINED	0	3	2	1	0	1.2
GIARDIASIS	13	6	11	19	19	14.0
HAEMOPHILUS INFLUENZAE, INVASIVE	3	3	3	4	4	3.4
HEMOLYTIC UREMIC SYNDROME	3	0	0	1	3	1.4
HEPATITIS B (PREGNANCY) PRENATAL	7	7	6	10	2	6.4
HEPATITIS B ACUTE	1	3	0	1	1	1.2
HEPATITIS B CHRONIC INFECTION	20	12	12	22	14	15.8
HEPATITIS C ACUTE	0	0	1	0	2	0.6
HEPATITIS C CHRONIC INFECTION	162	130	148	107	101	129.6
LEGIONELLOSIS	2	4	2	2	0	2.0
LEPTOSPIROSIS	0	1	0	0	0	0.2
LISTERIOSIS	0	0	0	1	0	0.2
LYME	0	0	3	0	0	0.6
MALARIA	0	0	0	1	0	0.2
MENINGOCOCCAL DISEASE	0	1	0	1	1	0.6
MOTT	32	31	40	25	28	31.2
MUMPS	0	0	0	25	288	62.6
NEUROINVASIVE WEST NILE	0	0	0	1	0	0.2
PERTUSSIS	16	5	7	6	3	7.4
Q FEVER ACUTE	1	1	0	0	0	0.4
RABIES ANIMAL	2	2	0	6	3	2.6
RABIES POST EXPOSURE PROPHYLAXIS	15	15	31	22	19	20.8
ROCKY MOUNTAIN SPOTTED FEVER	4	7	3	11	14	7.8
SALMONELLOSIS	40	18	11	19	25	22.6
SHIGELLOSIS	1	2	6	47	9	13.2
STAPH AUREUS VISA	0	0	0	0	1	0.2
STREP DISEASE, GROUP A INVASIVE	2	3	1	2	3	2.2
STREP DISEASE, INVASIVE	0	0	0	0	4	0.8
STREP PNEUMONIAE, <5 YEARS, INVASIVE	0	0	0	2	1	0.6
STREP PNEUMONIAE, DRUG-RESISTANT	1	3	2	1	1	1.6
TB DISEASE	4	8	0	2	4	3.6
TB INFECTION	145	431	202	132	139	209.8
TULAREMIA	2	0	0	1	2	1.0
TYPHOID FEVER	0	0	1	0	0	0.2
VARICELLA (CHICKENPOX)	5	21	19	6	5	11.2
VIBRIOSIS	0	0	1	0	0	0.2
YERSINIOSIS	1	0	0	0	0	0.2
ZIKA	0	0	0	0	1	0.2

Outbreaks

An outbreak is defined as the occurrence of more cases of a disease than expected in a specific setting or community. The trigger for an outbreak can vary. While one disease may have an outbreak trigger of ten cases, another may be considered an outbreak with a single case. As with reportable diseases, the total number of outbreaks reported is not a true representation of the actual number of outbreaks occurring, since many who become ill do not seek medical care and do not report illness. PHHS investigated five outbreaks during 2016. A summary of the outbreaks reported and investigated can be found in Table 3 along with a brief description.

All outbreaks require additional resources from the day-to-day activities associated with communicable diseases. Health department staff works closely with community partners including healthcare and long-term care facilities, daycares, restaurants, businesses and schools to identify cases and prevent further cases.

Table 3:

Summary of Disease Outbreaks Investigated In Boone County 2016			
Onset	Setting	Agent/Condition	Summary
February	Healthcare Facility/Long-Term Care	Norovirus-Like Illness	12 staff and residents became ill with norovirus-like illness.
August	Childcare	E. coli O157:H7	E. coli identified in 8 children attending 3 separate daycares. The genetic pattern of the E. coli matched in each of the 8 cases, along with a case in another Missouri county and 2 cases in other states.
October	Catered Event	Acute Gastrointestinal Illness	22 attendees of a catered event onset with an acute gastrointestinal illness.
November	School/University	Mumps	Reported mumps with onsets in August and September became an outbreak in November when cases multiplied rapidly. The outbreak continued until the summer of 2017, with 445 cases identified.
December	Childcare	Acute Gastrointestinal Illness	A daycare experienced an outbreak of acute gastrointestinal illness with 34 students and staff identified with symptoms.

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