

2017

Boone County, Missouri
Communicable
Disease
Summary

**Columbia/Boone County Department of
Public Health and Human Services**



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Boone County

Communicable Disease Summary

2017

The Missouri Department of Health and Senior Services (DHSS), under reporting rule 19 CSR 20-20.020, designates which 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 2017, approximately 8,900 disease case reports were reported to Columbia/Boone County Public Health and Human Services Department (PHHS). Of this number, 5,171 were influenza reports and 1,654 were sexually transmitted disease (STD) reports. Both influenza and STDs are addressed in separate reports available on the PHHS website:

<https://www.gocolumbiamo.com/Health/PublicHealthandHumanServicesPublications.php>. Of the remaining disease case reports, after investigation, 919 were determined to meet case definition for other reportable communicable diseases, which are addressed in this report. The remaining cases either did not meet case definition or were determined to belong to a jurisdiction other than Boone County.

Over 1200 disease case reports received in 2017 were determined to belong to other jurisdictions outside of Boone County. While not reflected in the final annual case counts, these 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.

Table 1 lists the 2017 confirmed case counts for Boone County, and Table 2 shows the confirmed communicable diseases reported in Boone County from 2013-2017 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:

2017 Boone County, Missouri Communicable Disease Summary

Reported Cases of Communicable Diseases*

Boone County, Missouri 2017

| DISEASE/CONDITION | Reported Cases Counts* |
|----------------------------------------------|------------------------|
| ANIMAL BITES | 247 |
| BRUCELLOSIS | 1 |
| CAMPYLOBACTERIOSIS | 48 |
| COCCIDIOIDOMYCOSIS | 1 |
| CRYPTOSPORIDIOSIS | 23 |
| CYCLOSPORIASIS | 5 |
| E COLI SHIGA TOXIN POSITIVE | 12 |
| E. COLI O157 H7 | 10 |
| EHRlichIA ANAPLASMOSIS UNDETERMINED | 5 |
| EHRlichIA CHAFFEENSIS | 5 |
| GIARDIASIS | 18 |
| HAEMOPHILUS INFLUENZAE, INVASIVE | 2 |
| HEPATITIS B (PREGANCY) PRENATAL | 11 |
| HEPATITIS B ACUTE | 1 |
| HEPATITIS B CHRONIC INFECTION | 18 |
| HEPATITIS C CHRONIC INFECTION | 101 |
| LEGIONELLOSIS | 2 |
| LISTERIOSIS | 2 |
| MALARIA | 4 |
| MOTT (MYCOBACTERIUM OTHER THAN TUBERCULOSIS) | 53 |
| MUMPS | 137 |
| PERTUSSIS | 2 |
| RABIES ANIMAL | 2 |
| RABIES POST EXPOSURE PROPHYLAXIS | 13 |
| ROCKY MOUNTAIN SPOTTED FEVER | 16 |
| SALMONELLOSIS | 35 |
| SHIGELLOSIS | 5 |
| STAPH AUREUS VISA | 1 |
| STREP PNEUMONIAE INVASIVE | 13 |
| TUBERCULOSIS DISEASE | 2 |
| TUBERCULOSIS INFECTION | 115 |
| TULAREMIA | 2 |
| VARICELLA (CHICKEN POX) | 4 |
| VIBRIOSIS | 2 |
| ZIKA | 1 |
| TOTAL | 919 |

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

Table 2:

2012-2017 Reported Diseases/Conditions Boone County With 5 Year Mean

| DISEASE/CONDITION | 2013 | 2014 | 2015 | 2016 | 2017 | 5 YR Mean |
|----------------------------------------|------|------|------|------|------|-----------|
| ANAPLASMA PHAGOCYTOPHILUM | 0 | 1 | 1 | 0 | 0 | 0.4 |
| ANIMAL BITES | 292 | 267 | 297 | 258 | 247 | 272.2 |
| BRUCELLOSIS | 1 | 0 | 0 | 1 | 1 | 0.6 |
| CAMPYLOBACTERIOSIS | 30 | 23 | 25 | 47 | 48 | 34.6 |
| CHIKUNGUNYA | 0 | 1 | 1 | 0 | 0 | 0.4 |
| COCCIDIOIDOMYCOSIS | 1 | 0 | 2 | 1 | 1 | 1 |
| CREUTZFELDT-JAKOB DISEASE (CJD) | 1 | 0 | 0 | 0 | 0 | 0.2 |
| CRYPTOSPORIDIOSIS | 3 | 8 | 13 | 22 | 23 | 13.8 |
| CYCLOSPORIASIS | 0 | 0 | 0 | 2 | 5 | 1.4 |
| DENGUE FEVER | 1 | 0 | 0 | 0 | 0 | 0.2 |
| E COLI SHIGA TOXIN POSITIVE | 2 | 3 | 9 | 10 | 12 | 7.2 |
| E. COLI O157 H7 | 6 | 1 | 3 | 11 | 10 | 6.2 |
| EHRlichIA CHAFFEENSIS | 13 | 10 | 3 | 4 | 5 | 7 |
| EHRlichIA EWINGII | 1 | 0 | 0 | 0 | 0 | 0.2 |
| EHRlichIOSIS ANAPLASMOSIS UNDETERMINED | 3 | 2 | 1 | 0 | 5 | 2.2 |
| GIARDIASIS | 6 | 11 | 19 | 19 | 18 | 14.6 |
| HAEMOPHILUS INFLUENZAE, INVASIVE | 3 | 3 | 4 | 4 | 2 | 3.2 |
| HEMOLYTIC UREMIC SYNDROME | 0 | 0 | 1 | 3 | 0 | 0.8 |
| HEPATITIS B (PREGNANCY) PRENATAL | 7 | 6 | 10 | 2 | 11 | 7.2 |
| HEPATITIS B ACUTE | 3 | 0 | 1 | 1 | 1 | 1.2 |
| HEPATITIS B CHRONIC INFECTION | 12 | 12 | 22 | 14 | 18 | 15.6 |
| HEPATITIS C ACUTE | 0 | 1 | 0 | 2 | 0 | 0.6 |
| HEPATITIS C CHRONIC INFECTION | 130 | 148 | 107 | 101 | 101 | 117.4 |
| LEGIONELLOSIS | 4 | 2 | 2 | 0 | 2 | 2 |
| LEPTOSPIROSIS | 1 | 0 | 0 | 0 | 0 | 0.2 |
| LISTERIOSIS | 0 | 0 | 1 | 0 | 2 | 0.6 |
| LYME | 0 | 3 | 0 | 0 | 0 | 0.6 |
| MALARIA | 0 | 0 | 1 | 0 | 4 | 1 |
| MENINGOCOCCAL DISEASE | 1 | 0 | 1 | 1 | 0 | 0.6 |
| MOTT | 31 | 40 | 25 | 28 | 53 | 35.4 |
| MUMPS | 0 | 0 | 25 | 288 | 137 | 90 |
| NEUROINVASIVE WEST NILE | 0 | 0 | 1 | 0 | 0 | 0.2 |
| PERTUSSIS | 5 | 7 | 6 | 3 | 2 | 4.6 |
| Q FEVER ACUTE | 1 | 0 | 0 | 0 | 0 | 0.2 |
| RABIES ANIMAL | 2 | 0 | 6 | 3 | 2 | 2.6 |
| RABIES POST EXPOSURE PROPHYLAXIS | 15 | 31 | 22 | 19 | 13 | 20 |
| ROCKY MOUNTAIN SPOTTED FEVER | 7 | 3 | 11 | 14 | 16 | 10.2 |
| SALMONELLOSIS | 18 | 11 | 19 | 25 | 35 | 21.6 |
| SHIGELLOSIS | 2 | 6 | 47 | 9 | 5 | 13.8 |
| STAPH AUREUS VISA | 0 | 0 | 0 | 1 | 1 | 0.4 |
| STREP DISEASE, GROUP A INVASIVE | 3 | 1 | 2 | 3 | 0 | 1.8 |
| STREP PNEUMONIAE, INVASIVE | 0 | 0 | 0 | 4 | 13 | 3.4 |
| STREP PNEUMONIAE, <5 YEARS, INVASIVE | 0 | 0 | 2 | 1 | 0 | 0.6 |
| STREP PNEUMONIAE, DRUG-RESISTANT | 3 | 2 | 1 | 1 | 0 | 1.4 |
| TB DISEASE | 8 | 0 | 2 | 4 | 2 | 3.2 |
| TB INFECTION | 431 | 202 | 132 | 139 | 115 | 203.8 |
| TULAREMIA | 0 | 0 | 1 | 2 | 2 | 1 |
| TYPHOID FEVER | 0 | 1 | 0 | 0 | 0 | 0.2 |
| VARICELLA (CHICKENPOX) | 21 | 19 | 6 | 5 | 4 | 11 |
| VIBRIOSIS | 0 | 1 | 0 | 0 | 2 | 0.6 |
| YERSINIOSIS | 0 | 0 | 0 | 0 | 0 | 0 |
| ZIKA | 0 | 0 | 0 | 1 | 1 | 0.4 |

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 three new outbreaks during 2017. A fourth outbreak from 2016, the mumps outbreak, extended into 2017 as well. 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 2017 | | | |
|---------------------------------------------------------------------------|-------------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Onset | Setting | Agent/Condition | Summary |
| November 2016- August 2017 | 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. |
| June 2017 | Private Gathering | Acute Gastrointestinal Infection | 59 attendees of a private gathering became ill within a few days following a shared meal. |
| October 2017 | Restaurant | Acute Gastrointestinal Infection | 10 attendees of a private gathering became ill the day after an event |
| December 2017 | Long Term Care Facility | Influenza | 4 residents of a long term care facility identified with influenza |

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