

epiConnections

A BIMONTHLY NEWSLETTER OF THE COMMUNICABLE DISEASE AND
EMERGENCY MANAGEMENT DIVISION OF BOULDER COUNTY PUBLIC HEALTH

Increase in Gastrointestinal Disease, Influenza, Mumps, and Rabid Pets in 2017

In 2017, there were 687 cases of confirmed and probable diseases or conditions reported in Boulder County. Among these reportable diseases, 43% (292 cases) were due to gastrointestinal diseases. Among them, the highest number of cases were from campylobacteriosis (115 cases), salmonellosis (50 cases), giardiasis (49 cases), and shiga-toxin producing *E.coli* (21). Other infections reported included cryptosporidiosis (16), shigellosis (13), vibriosis (8), cyclosporiasis (8), yersiniosis (7), hepatitis A (4), and listeriosis (1). Statewide, the number of reported enteric pathogens continues to increase each year.

Outbreaks: The number of outbreak investigations in Boulder County increased in 2017. There were 23 outbreaks, consisting mostly of influenza and gastroenteritis (norovirus) in long-term care facilities. Three restaurant outbreaks occurred from confirmed *Campylobacter coli* found in chicken liver mousse and norovirus infections among food handlers.

Vaccine-preventable Illness: Vaccine-preventable diseases accounted for 45% (312 cases) of case reports in 2017. Pertussis continued to decrease since the last epidemic in 2012-2013 but remains prevalent among school-aged children. There were 42 cases reported in 2017 among 22 schools and child care facilities in Boulder County, and 5 of the settings reported multiple pertussis cases. There were only 13 cases of varicella reported in school-aged children; however, this illness is often under-reported since many people do not seek health care.

There were 230 influenza hospitalizations reported in the county for the year; 137 were considered part of the 2016-2017 influenza season. The 2017-2018 influenza season started early and intensely with 86 reports of hospitalizations reported between October and December 2017. Outbreaks of influenza in group settings were on the rise by November in Boulder County, indicating that the current flu season would likely be more severe.

In 2017, there was an increase in mumps cases statewide with 78 cases reported in Colorado. This is compared to an average of 7-8 cases reported per year from 2012 through 2016. Part of the increase was due to a large outbreak of the disease in the Denver Metro area (47 cases reported) that affected a community with low vaccination coverage and was likely related to the increase in mumps outbreaks reported nationwide. One case of mumps was reported in Boulder County last year.

Zoonosis: Fifteen mosquito pools collected from various sites around the county tested positive for West Nile virus (WNV) during the 2017 season. Both total mosquito and *Culex* species counts were above average for the season, although fewer pools tested positive for WNV. Fortunately, human infections did not increase as expected; there were 9 human cases of WNV in Boulder County

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Remind Clients to Vaccinate Pets and Horses Against Rabies

With the warmer weather there has been a rise in concerns about rabies from community members whose pets have come in contact with wildlife. Rabies is an infectious viral disease usually passed on through the bite of an infected animal. The disease affects the nervous system in people and many mammals; it is fatal unless it is treated before any symptoms appear. Last year in Colorado, two pets (dogs) tested positive for rabies, requiring everyone who came in contact with them to receive the rabies post-exposure vaccination series. Cats have also tested positive for rabies in Colorado in recent years. Last year in Colorado, 93 skunks, 63 bats, and 7 other wildlife species tested positive for the disease.

Vaccinating dogs, cats, horses, and livestock against rabies is the most important and effective way to protect both animals and humans from contracting rabies. Kittens and puppies too young to receive their first rabies vaccinations should be monitored closely and kept away from wildlife until 30 days after their first rabies vaccination. Below are other guidelines to share with your patients:

- DO NOT handle unfamiliar animals, wild or domestic, even if they appear friendly. Contact Animal Control to collect stray dogs.
- Thoroughly wash any wound caused by an animal with soap and water, and seek medical attention immediately.
- Keep vaccinations current for all dogs, cats, ferrets, and horses.
- Maintain control of pets by keeping cats and ferrets indoors and keeping dogs under direct supervision.
- Teach children to leave wildlife alone.
- Do not leave pet food or livestock feed in areas that are accessible to wildlife.

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with a clinical diagnosis of uncomplicated fever (5 cases) or neuroinvasive (4 cases). Across the state, 68 cases were reported, including 4 deaths, 1 of which was in Boulder County. The majority of cases were uncomplicated fever (57%), with the others being meningitis (18%) or encephalitis (25%).

In 2017, seven animals found in Boulder County tested positive for rabies - six bats and one skunk. This was a decrease compared to previous years and compared to other counties along the Front Range. Post-exposure prophylaxis was recommended for 41 Boulder County residents who had exposure to animals that may have been infected with rabies. Also, one domestic cat tested positive for plague in Longmont.

Two dogs tested positive for rabies in the state, one in Weld County and one in Yuma County. These were the first cases of rabies among dogs in Colorado since 2003 when a dog from Texas tested positive. The last time a dog was exposed and developed rabies in Colorado was 1974. Fortunately, everyone who came in contact with the two dogs sought appropriate care to prevent rabies, and the animals did not create a risk to the public. There were an additional 163 animals in Colorado that tested positive for rabies in 2017. Of those, 115 were known or strongly suspected of exposing 237 domestic pets, 199 livestock animals, and 63 people.

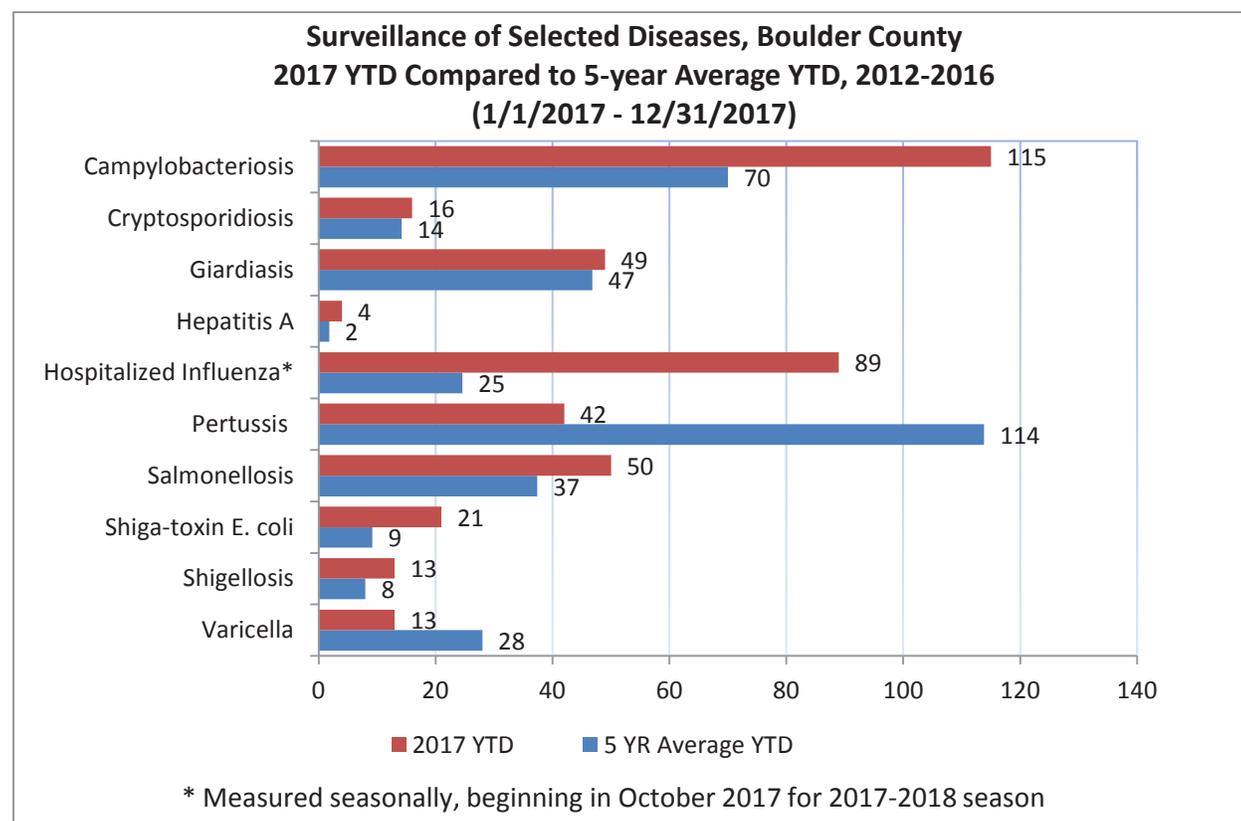
Rabies is regularly found in Colorado wildlife, especially skunks. While it is typical to see an increase in the number of cases as the weather warms up and animals become more active, there were more rabid skunks identified in Colorado last year (93 total) than in 2016 (25 total). This skunk variant of rabies was first identified in Colorado in 2007 in the eastern border counties. Since then, it has spread throughout eastern Colorado, including the Front Range and Metro Denver areas. As rabies spreads among wildlife along the densely populated Front Range, both humans and pets are at greater risk for this deadly disease. Providers can help by reminding patients to check their pets' vaccination status, stay away from stray and wild animals, and take other precautions to avoid rabies (see rabies article in this issue).

Submitted by Kylie Chilton
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- Contact Boulder County Public Health at 303.441.1564 during business hours or 303.370.9395 after hours to report exposure between wildlife and people or pets. Call Animal Control to report bites from dogs or cats to people.
- Learn more about zoonotic disease, and view the Boulder County rabies and West Nile virus activity maps during summer months at BoulderCountyVector.org
- For additional data and guidance about rabies, visit <https://www.colorado.gov/pacific/cdphe/rabies>

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Boulder County Aims for Tuberculosis (TB) Elimination

Latent TB infection is not a reportable condition in Colorado. Hence, there is no good estimate of the number of individuals who are infected but do not have active disease. It is estimated, however, that 10% of those with untreated latent infection will develop active TB disease at some point in their lives.

In the fall of 2016, the Boulder County Public Health TB and Immunization programs conducted a small pilot project to identify TB risk among adults who brought children in to the Public Health immunization clinic for vaccines. The project lasted for 3 months (August 7-November 1, 2017) when adult guardians were asked to complete a short TB risk assessment while waiting for their immunization appointment. A total of 287 assessments were returned. After reviewing each form, TB program staff referred 44 people (15%) to their primary care providers (PCP) or the providers of their choice (61% Salud Clinic, 39% other providers) for screening with a TB skin test or an IGRA (TB blood test) because they had identified risk factors for TB. The greatest risk for TB among this group was time spent living in a country where TB is endemic. Eight people were tested by their PCP, and all tested negative for TB infection.

Of the providers who followed up with the TB Program after receiving a referral, many said they were unable to contact the individuals, the individuals refused to come in only for TB testing, patients were worried about cost, or the individuals did not feel the risk was great enough to be tested. Health care providers are the frontline of defense and are critical to identifying and preventing the spread of TB. In March 2016, the U.S. Preventive Services Task Force published recommendations for Latent TB screening ([USPHSTF Recommendations for LTBI Screening and Treatment](#)), suggesting that all primary care providers should regularly be asking questions about TB risk, testing those at high risk, and treating those who are positive. The [CO TB Risk Assessment Form](#) and the [CO Adult TB Risk Assessment User Guide](#) can help. Contact Carolyn Bargman, TB Control Program, at 303 413-7516 or 303-602-7240 for more information.

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