

# Central Oregon Public Health Quarterly

Communicable Disease Update for Crook, Deschutes, and Jefferson Counties  
2019: Quarter 1

24/7 Communicable Disease reporting lines: : Crook County: 541-447-5165 : Deschutes County: 541-322-7418 : Jefferson County: 541-475-4456

## 2018 Communicable Diseases Year-in-Review

The table below summarizes 2018 case counts and estimated rates for select reportable communicable diseases with Central Oregon regional case counts of 5 or higher. Diseases are listed in order of prevalence in Central Oregon in 2018. Five-year rates and average annual case counts for 2013-2017 are also provided for comparison.

Reportable Disease or Condition	2018				2013-2017			
	Oregon		Central Oregon		Oregon		Central Oregon	
	Case count	Rate per 100,000 population	Case count	Rate per 100,000 population	Average annual case count	5-year rate per 100,000 population	Average annual case count	5-year rate per 100,000 population
Chlamydia	19,067	454.5	855	363.0	16,397.4	406.8	754	342.3
Hepatitis C (chronic)	5,490	130.9	277	117.6	5,538.6	137.4	295	133.9
Campylobacteriosis	969	23.1	118	50.1	942.8	23.4	70	31.7
Gonorrhea	5,899	140.6	95	40.3	3,334.0	82.7	78	35.3
E.Coli (STEC)	316	7.5	44	18.7	202.2	5.0	17	7.8
Salmonellosis (non-typhoidal)	580	13.8	38	16.1	447.8	11.1	24	10.9
E.Coli (ETEC)	46	1.1	24	10.2	Newly reportable in 2018			
Giardiasis	321	7.7	23	9.8	348.0	8.6	25	11.5
Cryptosporidiosis	289	6.9	22	9.3	245.8	6.1	6	2.8
Shigellosis	288	6.9	17	7.2	89.2	2.2	3	1.2
Pertussis	497	11.8	16	6.8	385.0	9.6	25	11.2
Cryptococcus	75	1.8	15	6.4	61.6	1.5	6	2.5
Syphilis	996	23.7	14	5.9	738.0	18.3	9	4.2
CRE	149	3.6	13	5.5	110.6	2.7	9	4.3
Elevated Blood Lead Level	397	9.5	8	3.4	384.4	9.5	6	2.8
Hepatitis B (chronic)	403	9.6	6	2.5	477.4	11.8	9	4.0
Colorado Tick Fever	5	0.1	5	2.1	0.4	0.0	0.4	0.2
Vibriosis	68	1.6	5	2.1	27.2	0.7	4	1.7

Case counts include both confirmed and presumptive cases. Case counts are preliminary as of February 1, 2019. 2018 rates calculated using 2018 mid-year population estimates from the Population Research Center at Portland State University. 2013-2017 rates calculated using American Community Survey population estimates.

## Central Oregon Year-in-Review Highlights

- In 2018, all statewide cases of Colorado Tick Fever (CTF) occurred in Central Oregon. *(Please refer to the back of this page for more information on CTF).*
- Chlamydia, gonorrhea and syphilis rates in Central Oregon rose 6%, 14% and 40% respectively compared to the 2013-2017 5-year rates. Despite this increase, Central Oregon rates are still below Oregon rates for all three diseases.
- Campylobacteriosis was the third most common reportable disease in Central Oregon. The rate (50.1 cases per 100,000) in Central Oregon was more than double the Oregon rate (23.1 cases per 100,000) and has increased from the Central Oregon 5-year rate (31.7 cases per 100,000).
- E. coli (ETEC) became reportable in 2018. Central Oregon had 24 cases, which represents 52% of all cases reported across Oregon. The Central Oregon rate of E.Coli (ETEC) (10 cases per 100,000) was around 10 times the Oregon rate (1.1 per 100,000).
- The Central Oregon E.Coli (STEC) rate in 2018 (18.7 cases per 100,000) is more than double the Central Oregon 5-year rate (7.8 cases per 100,000).

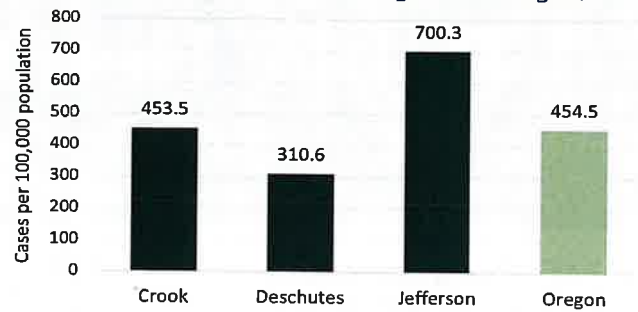
# Notable Disease Differences by County - 2018

Chlamydia and gonorrhea rates are higher in Jefferson County than in Deschutes and Crook Counties (*see graphs to the right*). Jefferson County's gonorrhea rate is lower than Oregon but its chlamydia rate is ~50% higher than Oregon. Gonorrhea rates in all three counties decreased between 2017 and 2018. Chlamydia rates increased in both Crook and Jefferson Counties between 2017 and 2018, but Deschutes County's rate decreased.

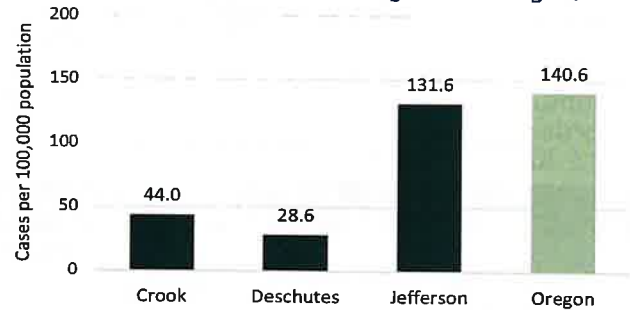
Other notable differences between the three Central Oregon counties this year were seen for Salmonellosis and Cryptosporidiosis. The rate of Salmonellosis in Jefferson County (38.2 cases per 100,000) is more than double the rate in Deschutes County (14.3 cases per 100,000). Crook County had too few cases to estimate a reliable rate in 2018.

The rate of Cryptosporidiosis in Crook County (26.4 cases per 100,000) is more than 3 times the rate in Deschutes County (7.4 cases per 100,000). Jefferson County had too few cases to estimate a reliable rate in 2018.

Chlamydia rates in Central Oregon and Oregon, 2018



Gonorrhea rates in Central Oregon and Oregon, 2018



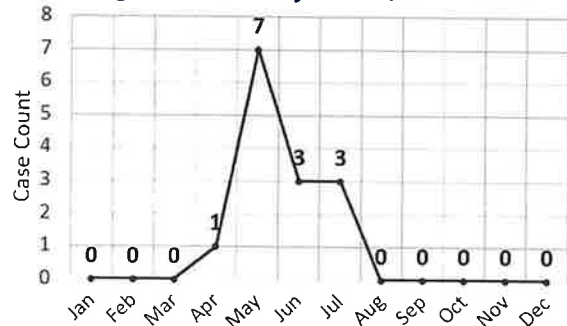
## Disease Spotlight: Colorado Tick Fever

Colorado Tick Fever (CTF) is characterized by a biphasic illness pattern, leukopenia, and reported tick exposure. The national burden of CTF is unknown because it is not a nationally notifiable disease. It is reportable in six western U.S. states, including Oregon.

Between 2003-2018, there were a total of 14 CTF cases reported in Oregon, 10 of whom were Central Oregon residents.

In 2018, there were 5 cases in Oregon, all of whom were Central Oregon residents. All five cases reported regular work or recreation in wooded or brushy areas in Central Oregon.

Oregon CTF cases by month, 2003-2018



CTF cases follow a seasonal pattern in Oregon, with all recent cases reported between April and July. Half of all recent Oregon cases were reported in May.

Approximate geographic distribution of *Dermacentor andersoni* ticks and counties of residence for confirmed and probable CTF virus cases, U.S., 2002-2012

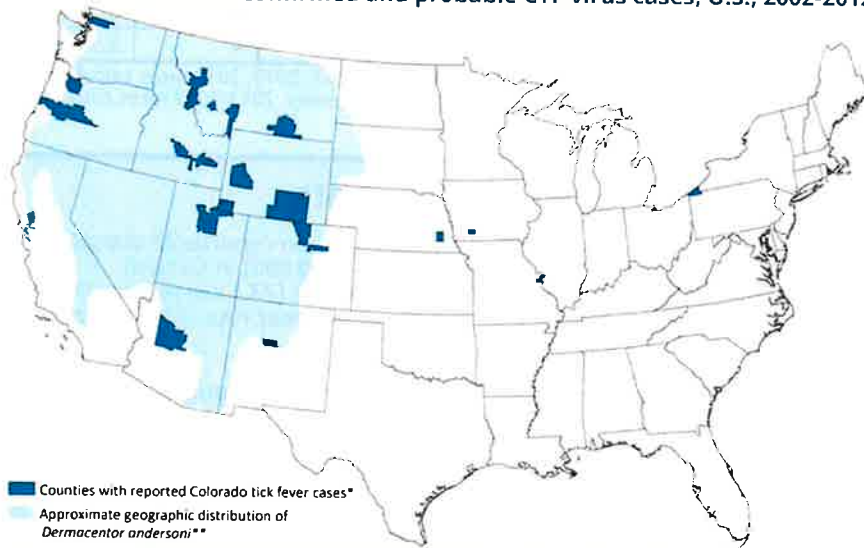


Figure from: <https://www.cdc.gov/coloradotickfever/statistics.html>

Colorado Tick Fever is transmitted by infected Rocky Mountain wood ticks (*Dermacentor andersoni*).

The map to the left shows the approximate distribution of *Dermacentor andersoni* ticks.

*Dermacentor andersoni* ticks are found in the western U.S., typically between 4,000 and 10,000 feet elevation. They are typically found in grassy areas near sagebrush.

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2019: Quarter 2

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Crook County:  
541-447-5165

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Jefferson County:  
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## Overview of 2018-2019 Central Oregon Flu Season

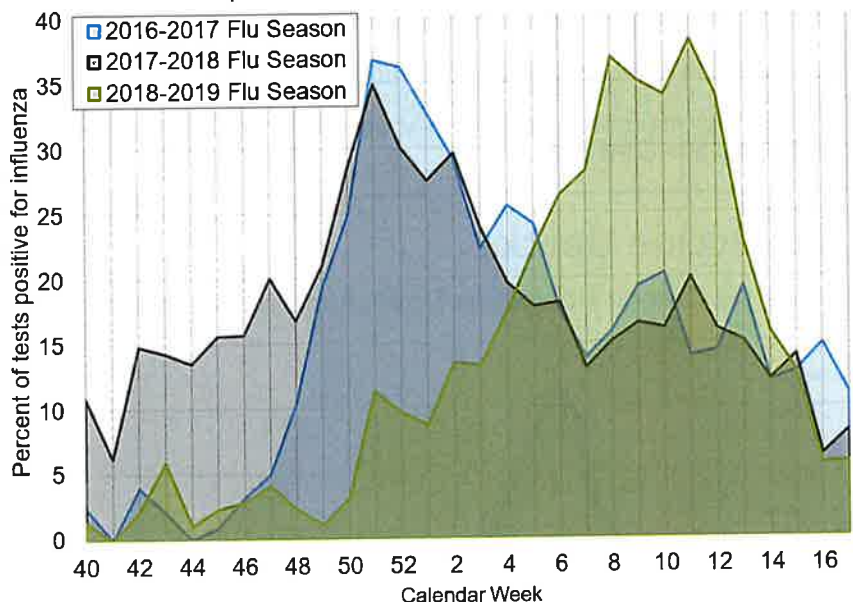
### Flu in Central Oregon peaked late this season.

According to data collected from local Central Oregon labs, 2018-2019 flu season activity (shown in green) peaked during calendar week 11 (March 10 through March 16), followed by a rapid decline in flu activity.

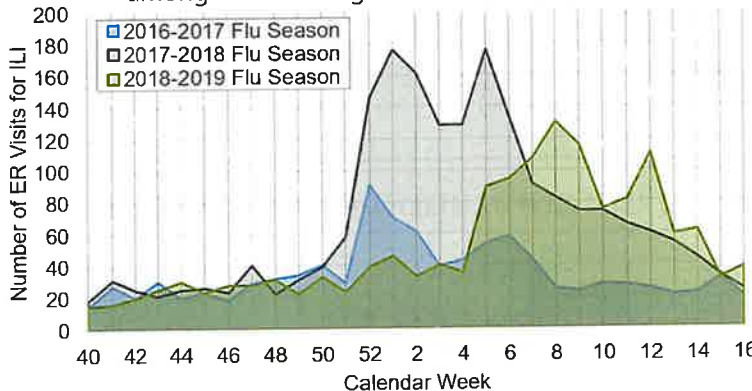
Flu season peaked around 12 weeks later than the 2016-2017 and 2017-2018 seasons. The previous two seasons both peaked during calendar week 51 in late December.

This variability across flu seasons highlights the importance of regular local surveillance to identify when flu activity is increasing in our area.

Percent of reported flu tests positive by week, 2016-2019



Weekly Number of ER visits for influenza-like illness among Central Oregon residents, 2016-2019



Data Source: ESSENCE syndromic surveillance system. Includes visits by Crook, Deschutes, and Jefferson County residents to any ER across Oregon.

### This flu season appears to have been less severe than last season.

According to CDC, the 2018-2019 flu season was of "moderate" severity nationwide\*, compared to "high" severity last season.\*\*

Among Central Oregon residents, there were around 1,500 total emergency room (ER) visits for influenza-like illness (ILI) this season, compared to around 2,000 total visits for ILI last season. The number of weekly ILI visits peaked at 130 during calendar week 8 (February 17 through February 23). Last season's peak occurred during calendar week 1 (176 visits), and the 2016-2017 season's peak occurred during week 52 (90 visits).

\*Blanton, et al. (2019). Update: influenza activity—United States, September 30, 2018–February 2, 2019. *Morbidity and Mortality Weekly Report* 68(6), 125.

\*\*Garten, et al. (2018). Update: influenza activity in the United States during the 2017–18 season and composition of the 2018–19 influenza vaccine. *Morbidity and Mortality Weekly Report* 67(22), 634.

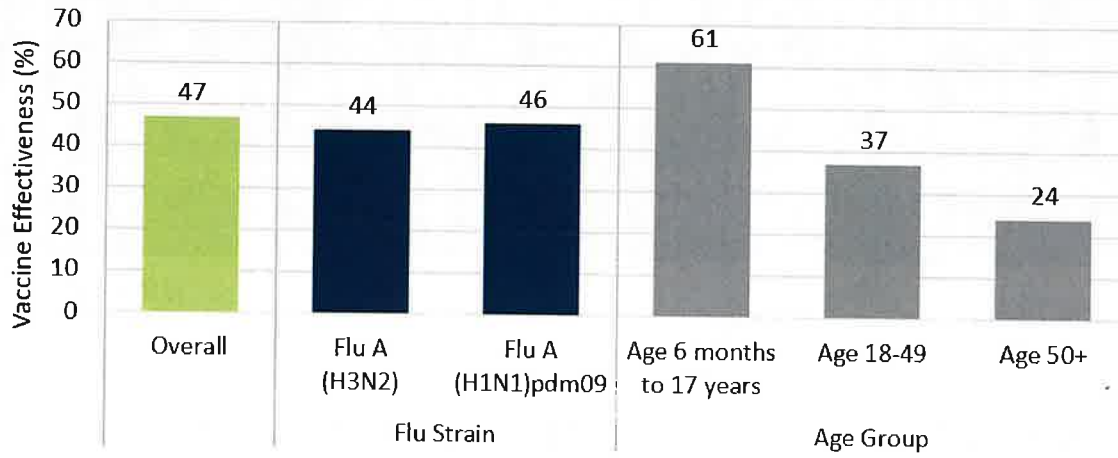
### There were five reported flu outbreaks this season in Central Oregon.

Four out of the five flu outbreaks occurred in long term care facilities, and one was in a school. The number of flu outbreaks reported this season is lower than the number reported last season (7). Statewide, there were 156 flu outbreaks this season as of May 1, around 70% of which occurred in long term care facilities.

### Across Oregon as a whole, there were two flu-associated pediatric deaths reported so far this flu season.

Nationwide, there have been 114 flu-associated pediatric deaths reported so far this season, which is lower than the 2017-2018 season (187) and similar to the 2016-2017 season (110).

# Flu Vaccine Effectiveness Estimates, 2018-2019 Flu Season



\*Interim national estimates of the 2018-2019 seasonal flu vaccine effectiveness were published in the February 15, 2019 issue of Morbidity and Mortality Weekly Report. Vaccine effectiveness (VE) is defined as the percent reduction in the risk of medically attended, laboratory-confirmed influenza virus infection.

**Overall vaccine effectiveness (VE) this season was estimated to be 47%\*.** Over the past ten flu seasons, overall VE has ranged from 19% (2014-2015 season) to 60% (2010-2011 season).

As shown above, VE was similar for Flu A (H3N2) (44%) and Flu A (H1N1)pdm09 (46%). There is no available estimate for Flu B VE for the 2018-2019 season as of June 1. Overall VE estimates varied by age group. Effectiveness estimates were highest among those aged 6 months to 17 years (61% VE) and lowest among those aged 50+ (24% VE).

## Flu Vaccine Uptake

2018-2019 Oregon Flu Vaccine Doses Reported by Week

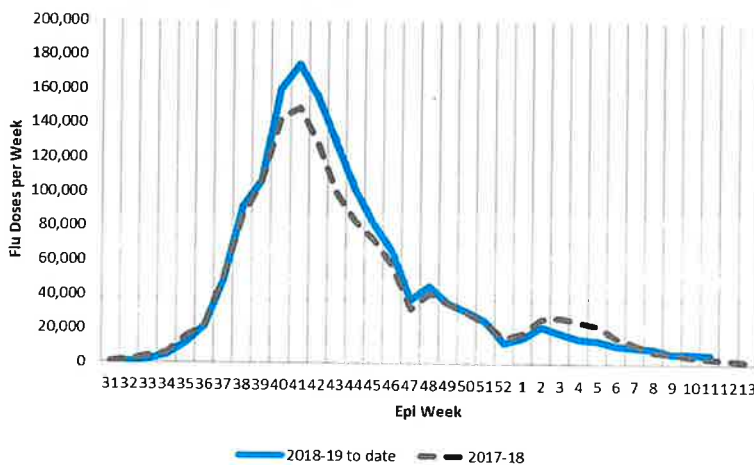


Figure source: Oregon Health Authority

**As of mid-March, the Oregon Health Authority (OHA) estimated that around 45% of all Oregonians received a flu vaccine during the 2018-2019 flu season.**

Around 1.5 million flu vaccines were administered to Oregon residents, which is higher than the 1.37 million administered during the 2017-2018 flu season and the 1.24 million administered during the 2016-2017 flu season.

The peak week for Oregonians to receive a flu vaccine was during week 41 (October 7 through October 13).

The age groups with the highest flu vaccination rates were the groups aged 6 months to 6 years (64%), 65-69 (70%), 70-74 (71%).

## Mid-season projected seasonal flu immunization rates by county

In December, Oregon Health Authority provided preliminary projections for end-of-season flu immunization rates by county.

OHA projected that Deschutes County would have the highest flu immunization rate (62%) in the state at the end of this flu season.

Crook County's rate was projected to be 56%, which is tied for the third-highest projected rate in the state. Jefferson County's rate was projected to be 42%, which ranks 22nd out of 36 Oregon counties.

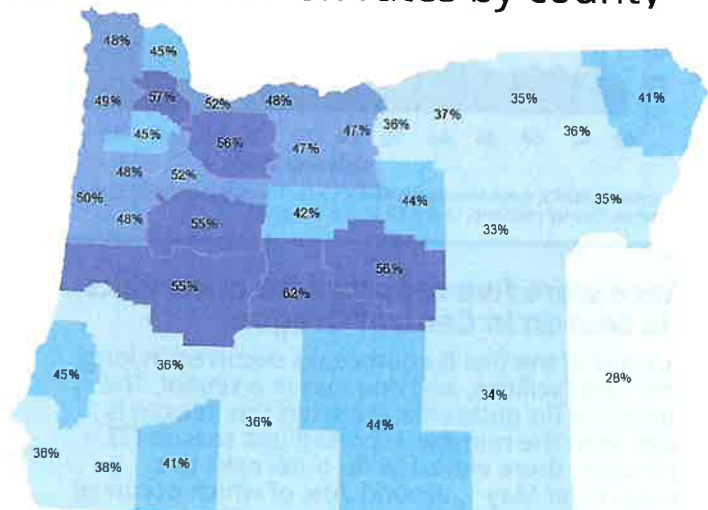


Figure source: Oregon Health Authority