

Central Oregon Public Health Quarterly

Communicable Disease Update for Crook, Deschutes, and Jefferson Counties
First Quarter Report, 2021

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

2020 Communicable Diseases Year-in-Review

The table below summarizes 2020 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 2019. Five-year rates and average annual case counts for 2015-2019 are also provided for comparison.

Reportable Disease or Condition	2020				2015-2019			
	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	26,156	612.8	732	299.3	18,106.0	437.3	817.8	357.4
Hepatitis C (chronic)	3,682	86.3	207	84.6	5,699.4	137.6	288.6	126.1
Gonorrhea	6,398	149.9	182	74.4	4,938.2	119.3	107.0	46.8
Campylobacteriosis	832	19.5	84	34.3	990.6	23.9	89.6	39.2
E. coli (STEC)	204	4.8	39	15.9	261.6	6.3	27.6	12.1
Giardiasis	250	5.9	30	12.3	328.0	7.9	27.4	12.0
Salmonella (non-typhoidal)	462	10.8	30	12.3	501.6	12.1	29.6	12.9
Pertussis	165	3.9	25	10.2	391.8	9.5	27.8	12.1
CRE	168	3.9	17	7.0	141.4	3.4	12.4	5.4
Early Syphilis	931	21.8	14	5.7	652.4	15.8	8.2	3.6
E. coli (ETEC)	31	0.7	13	5.3	<i>Newly Reportable in 2018</i>			
Cryptococcus	39	0.9	9	3.7	64.4	1.6	8.6	3.8
Cryptosporidiosis	92	2.2	7	2.9	277.8	6.7	15.2	6.6
Hepatitis B (chronic)	295	6.9	7	2.9	440.0	10.6	8.4	3.7
Legionellosis	65	1.5	6	2.5	51.0	1.2	2.2	1.0
Shigellosis	192	4.5	6	2.5	158.2	3.8	6.6	2.9

Case counts include both confirmed and presumptive cases. Case counts are preliminary as of February 1, 2020. 2020 rates calculated using 2020 mid-year population estimates from the Population Research Center at Portland State University. 2015-2019 rates calculated using American Community Survey population estimates.

Note: E. coli is the abbreviation for Escherichia coli bacteria. STEC is the abbreviation for Shiga-toxin producing E. coli and ETEC is the abbreviation for Enterotoxigenic E. coli. CRE is the abbreviation for Carbapenem-resistant Enterobacteriaceae.

Central Oregon Year-in-Review Highlights

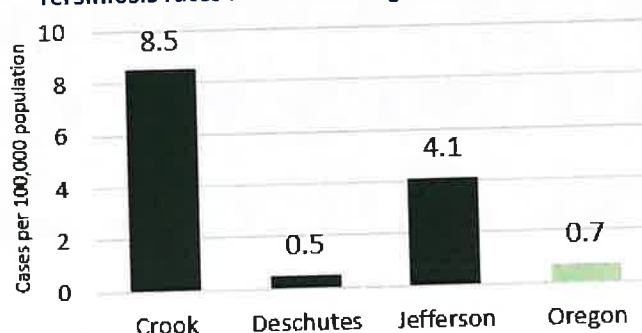
- In 2020, nearly a quarter of all statewide Cryptococcus cases occurred in Central Oregon.
- Chlamydia rates in Central Oregon are decreased 16% compared to the 2015-2019 5-year rates, while gonorrhea rates increased 59%. The state's chlamydia rate is still twice that of Central Oregon and Central Oregon's gonorrhea rate is over twice the state's rate.
- Campylobacteriosis is the fourth most common reportable disease in Central Oregon. The rate in Central Oregon (34.3 cases per 100,000) is decreased from 2019 (47.0 cases per 100,000), and the Central Oregon rate was decreased from the Central Oregon 5-year rate (39.2 cases per 100,000). The Central Oregon rate was 75% more than the Oregon rate (19.5 cases per 100,000). **Please refer to the back of this page for more information on Campylobacteriosis.**
- In Central Oregon, the CRE rate in 2020 (7.0 cases per 100,000) was more than double the Central Oregon rate in 2019 (2.9 cases per 100,000) and increased compared to the Central Oregon 5-year rate (5.4 cases per 100,000).

Yersiniosis is higher in Crook County than in Deschutes and Jefferson County and hepatitis C (chronic) is higher in Jefferson County than in Crook and Deschutes County (see graphs to the right). Crook County's yersiniosis rate remained the same between 2019 and 2020, while Deschutes County increased over 10 times and Jefferson County was half the rate as in 2019. Chronic hepatitis C in Crook and Jefferson County decreased between 2019 and 2020, while rates in Deschutes County increased.

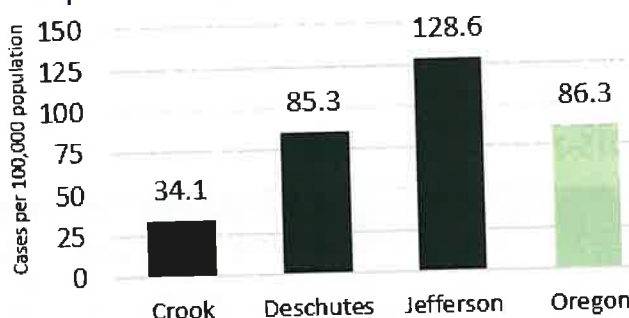
Other notable differences between Central Oregon counties were seen for gonorrhea and vibriosis. The rate of gonorrhea in Jefferson County (195.0 cases per 100,000) is more than three times the rate in Deschutes County (57.4 cases per 100,000) and over double the rate in Crook County (93.9 cases per 100,000).

The rate of campylobacteriosis in Crook County (55.5 cases per 100,000) is 67% higher than Deschutes County and 62% higher than Jefferson County. Rates decreased in Deschutes and Jefferson between 2019 and 2020, but Crook County rates remained the same.

Yersiniosis rates in Central Oregon and Oregon, 2020



Hepatitis C rates in Central Oregon and Oregon, 2020

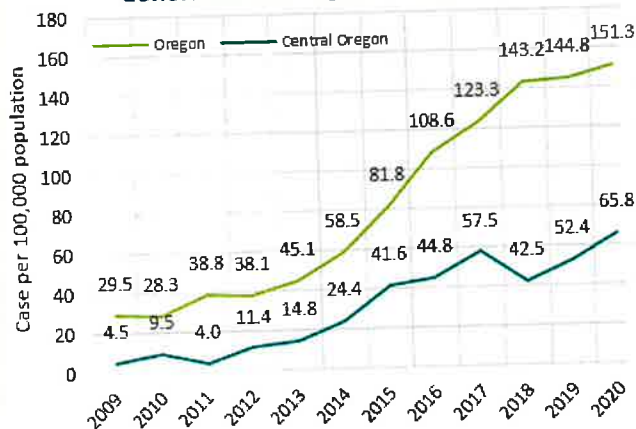


Disease Spotlight: Gonorrhea

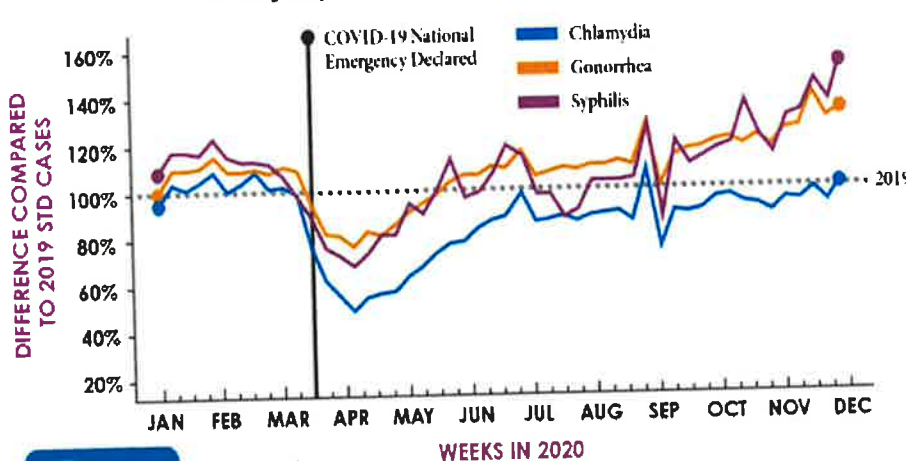
Gonorrhea is a sexually transmitted disease (STD) that infects both men and women. It can cause infections in the genitals, rectum, and throat. It is a very common infection, disproportionately affects young people ages 15-24 years. Most women and some men may not present with symptoms. It is a curable disease but, if left untreated, it can cause serious complications.

Gonorrhea rates in Central Oregon and the state have been steadily increasing since 2009, except for the decrease in Central Oregon rate observed in 2018. Since 2009, the Central Oregon rate has been below the Oregon rate.

Gonorrhea rates by year, 2009-2020



Weekly Reported U.S. STD Cases, 2020 vs. 2019



Gonorrhea is spread through vaginal, anal, or oral sex with someone who is infected. Pregnant women can also pass on the infection to their baby during childbirth.

The line chart shows weekly reported STD cases in 2020 compared to 2019.

After COVID-19 stay-at-home orders in spring of 2020, gonorrhea cases dropped to 71% of 2019 levels. On the last reported week in early December of 2020, cases were 135% of 2019 levels.

Figure from: <https://www.cdc.gov/nchstp/newsroom/2021/2020-std-trend-report.html>

Central Oregon Public Health Quarterly

Communicable Disease Update for Crook, Deschutes, and Jefferson Counties
Second Quarter Report, 2021

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

Overview of 2020-2021 Central Oregon Flu Season

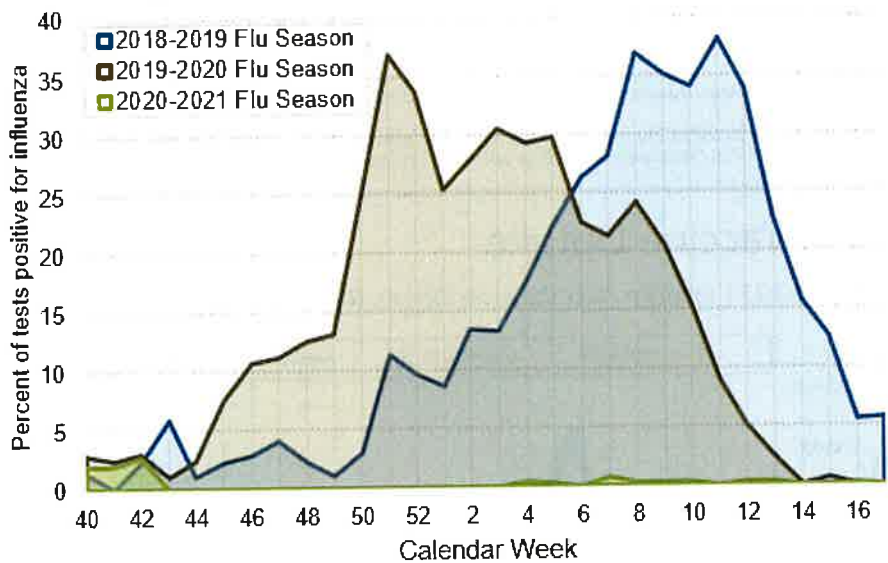
Flu in Central Oregon was unusually low this season.

According to data collected from local Central Oregon labs, 2019-2020 flu season activity (shown in green) peaked during calendar week 42 (October 11 through October 17), followed by a sharp decline in flu activity.

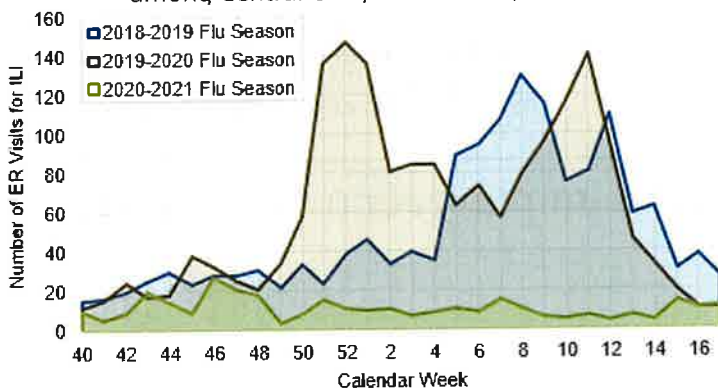
Flu season started similar to the 2019-2020 season, but dropped off after week 42. Reasons related to the COVID-19 pandemic likely contribute to low test positivity.

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

Percent of reported flu tests positive by week, 2018-2021



Weekly Number of ER visits for influenza-like illness among Central Oregon residents, 2018-2021



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 had low virus circulation.

According to CDC, the 2020-2021 flu season had the lowest number of estimated hospitalizations than any season since CDC began making these estimates*.

Among Central Oregon residents, there were around 300 total emergency room (ER) visits for influenza-like illness (ILI) this season, compared to around 1,800 total visits for ILI last season. The number of weekly ILI visits peaked at 27 during calendar week 46 (November 8 through November 14). Last season's peak occurred during calendar week 52 (147 visits), and the 2018-2019 season's peak occurred during week 8 (130 visits).

* Centers for Disease Control and Prevention. (2021, July 22). *Upcoming 2020-2021 Influenza Season*. <https://www.cdc.gov/flu/season/faq-flu-season-2020-2021.htm>

There were no reported flu outbreaks this season in Central Oregon.

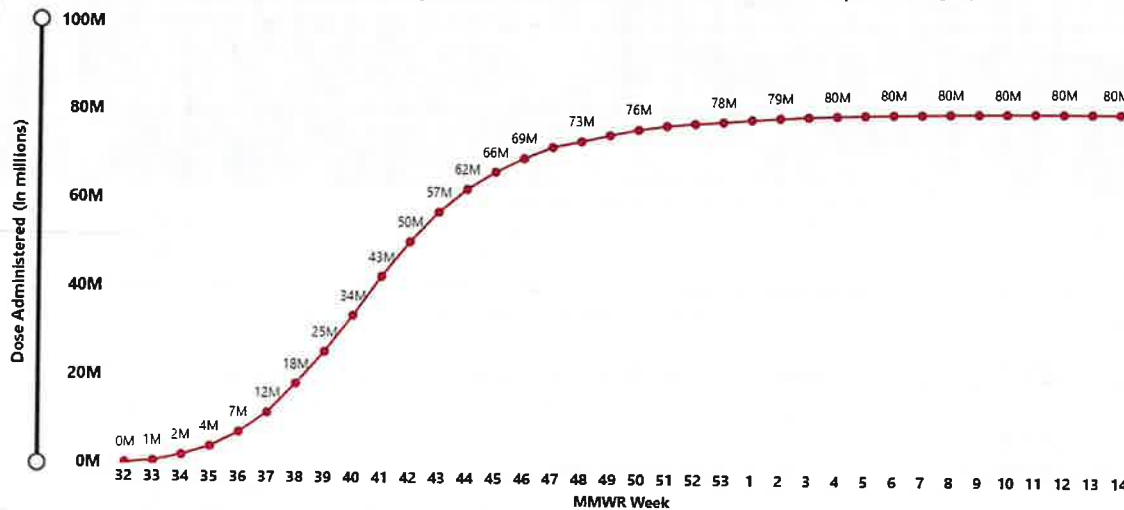
The number of flu outbreaks reported this season is lower than the number reported last season (2). There was 1 flu outbreak statewide this season, compared to 93 last season, which did occur in a congregate living setting.

Across Oregon as a whole, there were no flu-associated pediatric deaths reported so far this flu season.

Nationwide, there was only 1 flu-associated pediatric deaths reported so far for this season, which is much lower than both the 2019-2020 season (169) and the 2018-2019 season (199).

Flu Vaccine Effectiveness Estimates, 2019-2020 Flu Season

Weekly estimated total number of adult 18+ influenza vaccinations administered in pharmacies and physician medical offices, United States, 2020-2021



According to the CDC, a record 193.8 million doses were distributed in the U.S. during the 2020-2021 flu season.

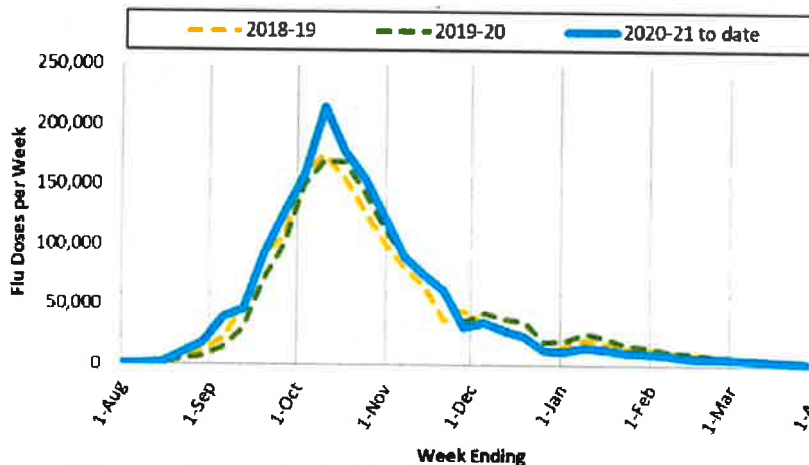
Flu vaccine effectiveness estimates for 2020-2021 were not estimated due to low influenza virus circulation.

Figure from: <https://www.cdc.gov/flu/fluview/dashboard/vaccination-administered.html>

Note: The 2020-2021 Flu Season contains an extra week 202053 even though week 202053 is not shown in the Horizontal Axis for graphical display compatibility with seasons containing 52 weeks.

Flu Vaccine Uptake

2020-2021 Oregon Flu Vaccine Doses Reported by Week



This season observed an early strong surge in influenza immunization, but began to decline quicker than prior seasons.

Around 1.63 million flu vaccines were administered to Oregon residents, which is higher than the 1.7 million administered during the 2019-2020 flu season and the 1.5 million administered during the 2018-2019 flu season.

The peak week for Oregonians to receive a flu vaccine was during week 41 (October 4 through October 10).

Despite the decline observed in mid-October, rates of new immunizations per week remained 18% higher than what is normally seen at this time of year.

Figure source: Oregon Health Authority

Mid-season preliminary seasonal flu immunization rates by age

The graph (to the right) compares the number of influenza immunizations given this season through early March to around the same time last season by age.

Influenza immunization totals in the last two seasons are similar, with this season observing a small decline in childhood influenza immunizations and a small increase in middle-age adult immunizations.

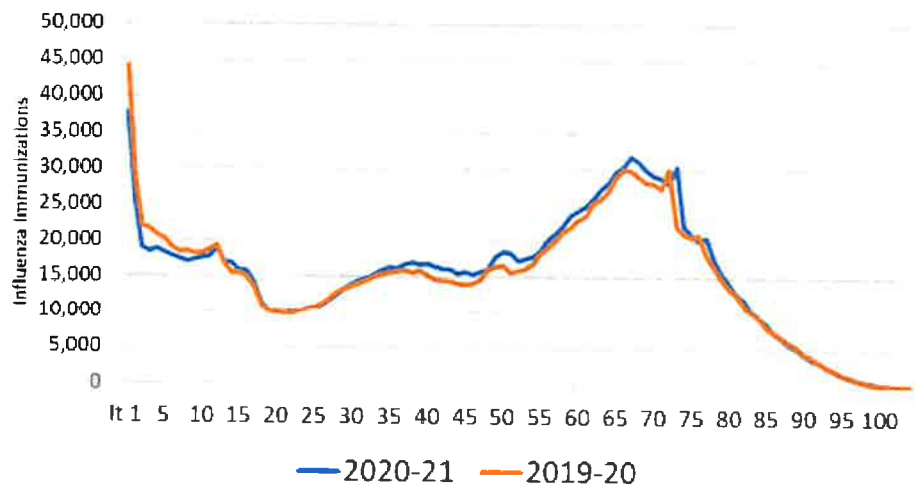


Figure source: Oregon Health Authority

Central Oregon Public Health Quarterly

Communicable Disease Update for Crook, Deschutes, and Jefferson Counties
Third Quarter, 2021

24/7 Communicable
Disease reporting lines:

Crook
County:
541-447-5165

Deschutes
County:
541-322-7418

Jefferson
County:
541-475-4456

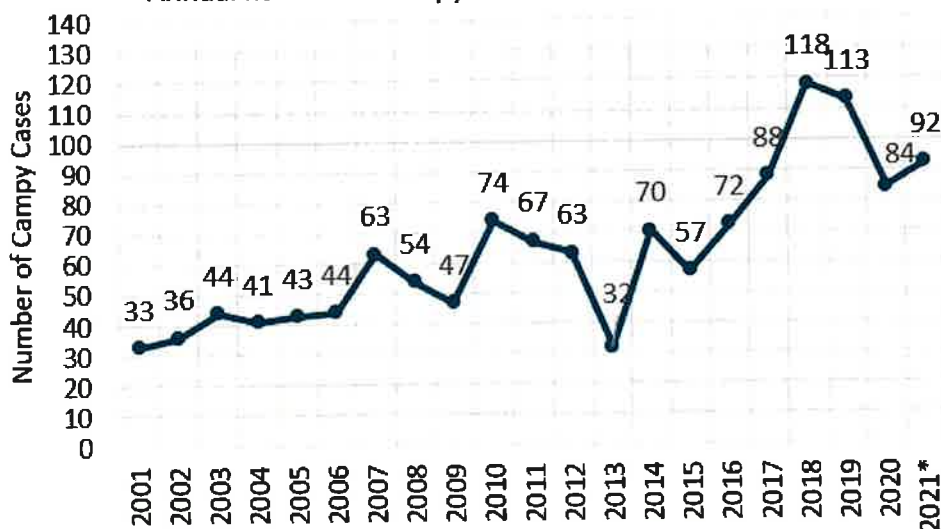
Campylobacteriosis in Central Oregon by Year

The number of yearly campylobacteriosis ("campy") cases has mostly trended upward since 2001.

There were a total of 1,367 campy cases in Central Oregon between 2001 and September of 2021. The number of cases each year has ranged from a low of 32 cases in 2013 to a peak of 118 cases in 2018.

In 2021 (as of late September), there were 92 campy cases in Central Oregon. Most (63.1%) cases in Central Oregon were among Deschutes County residents, followed by Crook County (22.8%) and Jefferson County (14.1%).

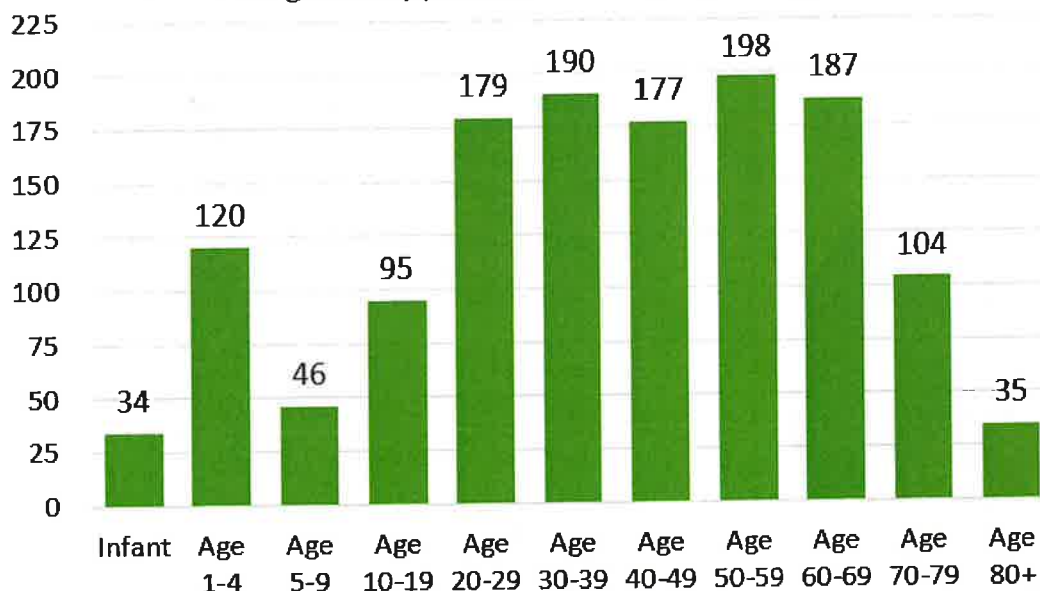
Annual number of campylobacter cases in Central Oregon



*2021 data is year-to-date as of September 30, 2021

Campylobacteriosis in Central Oregon by Age Group

Central Oregon campylobacter cases by age group, 2001-2021*



*2021 data is year-to-date as of September 30, 2021

Most cases of campy in Central Oregon are adults aged 20 to 69.

Around 78.4% of campy cases in Central Oregon were aged ≥ 20 , and around 14.6% of cases were aged < 10 .

There were 34 infant cases under the age of 1, representing around 2.5% of cases.

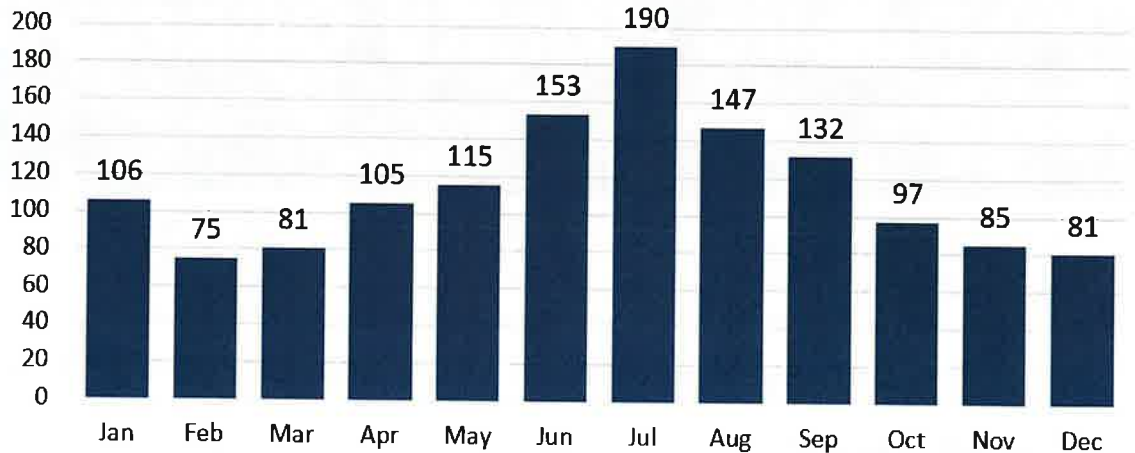
The age distribution of cases in Central Oregon over the past 20 years is similar to the distribution seen across Oregon as a whole.

Campylobacteriosis in Central Oregon by Month

Central Oregon Campylobacter Cases by Month, 2002-2021*

The summer months have the most campy cases to occur in Central Oregon.

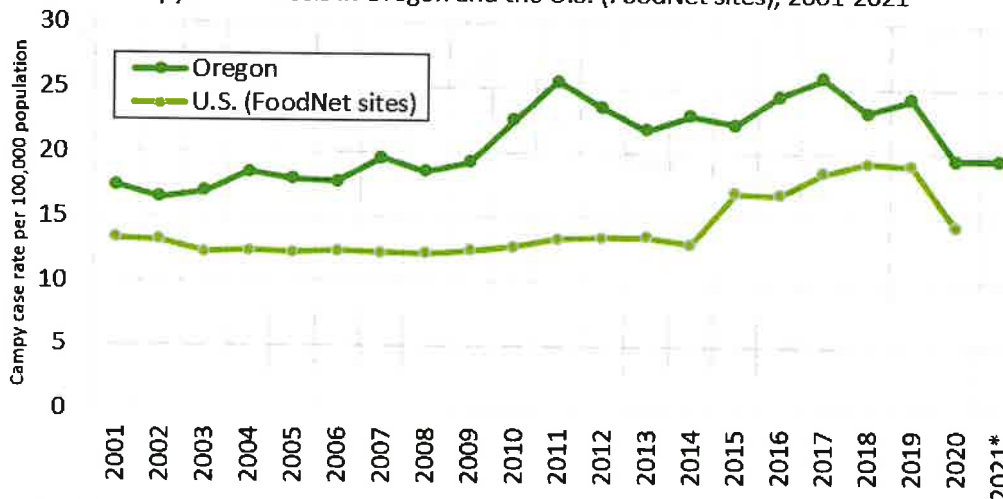
Over the past twenty years, nearly 25.1% of cases occurred between June and July, peaking in July.



*As of September 30, 2021

Campylobacteriosis in Oregon and the United States

Campylobacteriosis in Oregon and the U.S. (FoodNet sites), 2001-2021*



Since 2001, Oregon has had a higher case rate than reported U.S. cases.

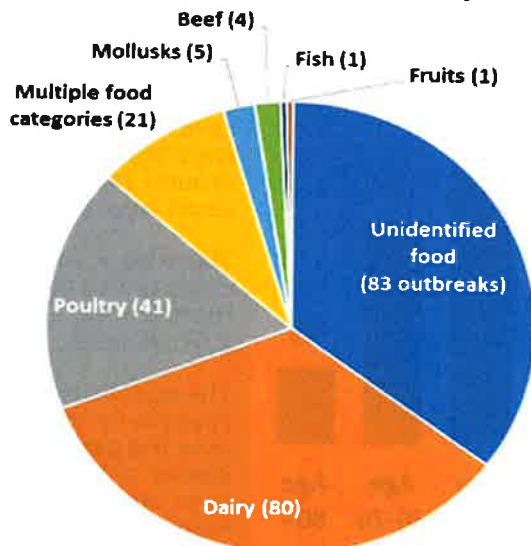
Campylobacteriosis became nationally reportable in 2015, which is the likely reason for the increased U.S. rate between 2015-2019.

Oregon and the U.S. observed a decrease in reported campy cases in 2020. Oregon continues to see a stagnant rate so far in 2021.

*As of September 30, 2021

Campylobacteriosis Outbreaks in the United States

Campylobacter Outbreaks, by food category, 2010-2017



Poultry, raw milk, and untreated water are the most commonly identified sources of campy outbreaks.

The CDC estimates that the bacteria *Campylobacter* is the number one cause of bacterial diarrheal illness in the United States, as well as number one intestinal disease diagnosed in returning international travelers.

According to the CDC, *Campylobacter* outbreaks are not commonly reported, despite the frequency of reported cases overall, but the the yearly number of outbreaks has been increasing.

There have been two *Campylobacter* outbreaks identified in Oregon so far in 2021, involving dairy and an unidentified food source.