

Central Oregon Public Health Quarterly

Communicable Disease Update for Crook, Deschutes, and Jefferson Counties
First Quarter Report, 2022

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

2022 Communicable Diseases Year-in-Review

The table below summarizes 2022 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 2022. Five-year rates and average annual case counts for 2017-2021 are also provided for comparison.

| Reportable Disease or Condition | 2022 | | | | 2017-2021 | | | |
|---------------------------------|------------|-----------------------------|------------|-----------------------------|---------------------------|------------------------------------|---------------------------|------------------------------------|
| | Oregon | Central Oregon | Oregon | Central Oregon | 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 | 15,520 | 362.7 | 699 | 285.8 | 17,685.2 | 418.1 | 824.6 | 344.2 |
| Hepatitis C (chronic) | 3,411 | 79.7 | 156 | 63.8 | 4,838.4 | 114.4 | 250.2 | 104.4 |
| Gonorrhea | 5,456 | 127.8 | 147 | 60.1 | 5,943.8 | 140.5 | 152.2 | 63.5 |
| Campylobacteriosis | 984 | 23.0 | 116 | 47.4 | 996.8 | 23.6 | 102.6 | 42.8 |
| Syphilis | 2,390 | 55.9 | 68 | 27.8 | 1,299.4 | 30.7 | 21.2 | 8.8 |
| Giardiasis | 331 | 7.7 | 51 | 20.9 | 310.6 | 7.3 | 32.4 | 13.5 |
| E. coli (ETEC)* | 119 | 2.8 | 46 | 18.8 | Newly Reportable in 2018 | | | |
| E. coli (STEC)* | 272 | 6.4 | 34 | 13.9 | 276.4 | 6.5 | 33.0 | 13.8 |
| Salmonella (non-typhoidal) | 484 | 11.3 | 28 | 11.4 | 465.6 | 11.0 | 29.6 | 12.4 |
| Cryptococcus | 67 | 1.6 | 16 | 6.5 | 56.6 | 1.3 | 8.4 | 3.5 |
| CRE* | 195 | 4.6 | 14 | 5.7 | 211.2 | 5.0 | 12.4 | 5.2 |
| Cryptosporidiosis | 116 | 2.7 | 12 | 4.9 | 210.6 | 5.0 | 15.0 | 6.3 |
| Vibriosis | 33 | 0.8 | 9 | 3.7 | 43.0 | 1.0 | 6.0 | 2.5 |
| Lyme disease | 68 | 1.6 | 8 | 3.3 | 70.8 | 1.7 | 4.0 | 1.7 |
| Yersinia | 50 | 1.2 | 8 | 3.3 | 46.0 | 1.1 | 7.6 | 3.2 |
| Coccidioidomycosis | 28 | 0.7 | 6 | 2.5 | 38.2 | 0.9 | 33.0 | 14.4 |

Case counts include both confirmed and presumptive cases. Case counts are preliminary as of April 5th, 2023. 2022 rates calculated using the 2022 mid-year population estimates from the *Population Research Center at Portland State University*. 2017-2022 rates calculated using the *American Community Survey* population estimates.

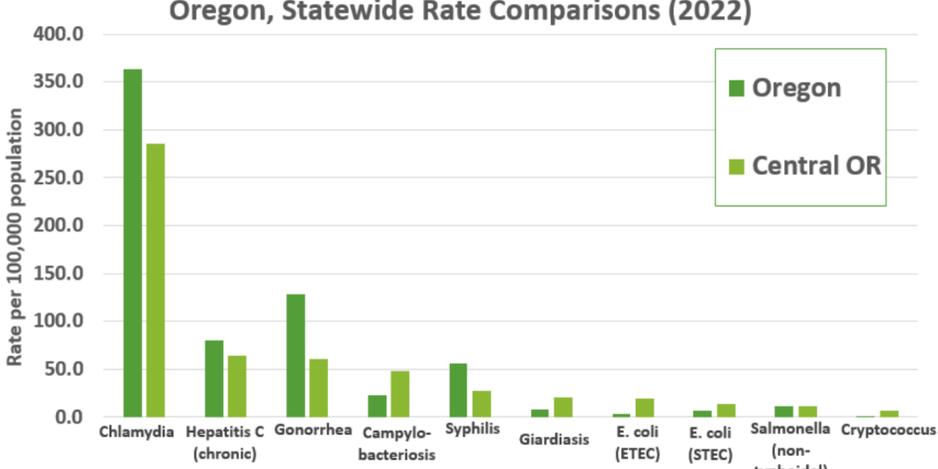
Note: E. coli is the abbreviation for Escherichia coli bacteria; STEC is the abbreviation for Shiga-toxin producing E. coli; ETEC is the abbreviation for Enterotoxigenic E. coli; & CRE is the abbreviation for Carbapenem-resistant Enterobacteriaceae.

2022 Central Oregon Year-in-Review Highlights

- Top 3 Central OR (CO) Communicable Diseases (CDs) in 2022:** 1) chlamydia; 2) hepatitis C (chronic); 3) gonorrhea (rates of which were all lower in CO vs. entire state)
- Rate Trends in Central OR: 2022 vs. Prior 5 Years (2017-2021)**
 - Elevated Rates:** [9/15 (60%)] of CDs examined had elevated rates in 2022 vs. previous 5 years; With a particularly elevated rate increase noted for syphilis (3-fold increase)
 - Diminished Rates:** [6/15 (40%)] of CDs had lower rates in 2022 vs. previous 5 years; With a particularly diminished rate noted for coccidioidomycosis (>5-fold decrease)
- 2022 Central OR vs. State Rates**
 - In 2022, 4/16 (25%) of CDs reported (case counts >5) had lower rates compared to the overall state rates (i.e. chlamydia; hepC (chronic); gonorrhea; syphilis)
 - Among the 12 CDs with higher rates in Central OR in 2022, all were ~2-fold or higher compared to the overall state rates, with the exception of salmonella & CRE

Notable Disease Differences by Central OR County & State - 2022

Top 10 Communicable Diseases Reported in Central Oregon, Statewide Rate Comparisons (2022)



Chlamydia & Campylobacteriosis - 2022



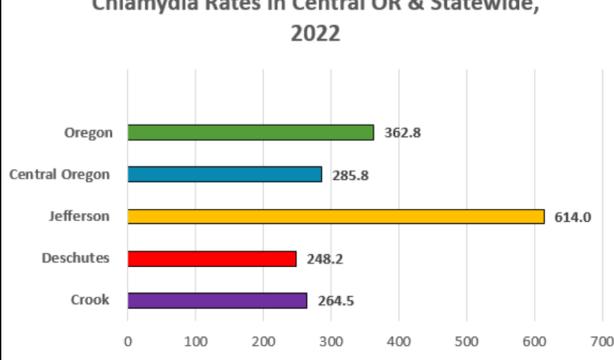
Brief Focus on Chlamydia

- Highest reported communicable disease:** In both 2022 & the previous 5 years (2017-2021), chlamydia remains the top communicable disease reported in Central OR
- Central OR Chlamydia Rates by County:** Across our 3 Central OR counties, chlamydia rates were highest in Jefferson County (>2 fold higher compared to Crook and Deschutes Counties) (see figure to right)
- Did you know?** Most people who have chlamydia don't know it since disease often has no symptoms (Source: CDC)

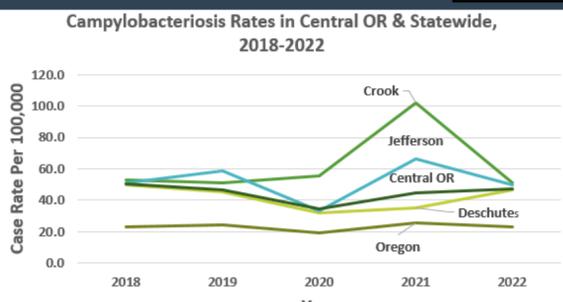
*Tips on reducing chlamydia risk: [Prevention | Chlamydia | CDC](#)

Figure (top left) from: [Chlamydia | MedlinePlus](#)

Chlamydia Rates in Central OR & Statewide, 2022



Campylobacteriosis Rates in Central OR & Statewide, 2018-2022



Brief Focus on Campylobacteriosis

- 4th Highest Reported CD Reported in Central OR in Recent Years was Campylobacteriosis:** Rates have risen slightly from 2018-2021 (44.1 per 100,000) to (47.4 per 100,000) in 2022
- Campylobacteriosis Across Central OR Counties:** Rates have remained higher than state rates from 2018-2022; particularly **elevated rate increases noted in 2021** for Crook (102.4) & Jefferson (66.4 per 100,000) Counties
- Did you know?** ... eating undercooked poultry or other food contaminated with juices dripping from raw poultry is the most common source of campylobacteriosis infection (Source: CDC)

Photo (above) by De Wood

*Tips on preventing campylobacteriosis: [Prevention | Campylobacter | CDC](#)

Disease Spotlight: Chronic Hepatitis C

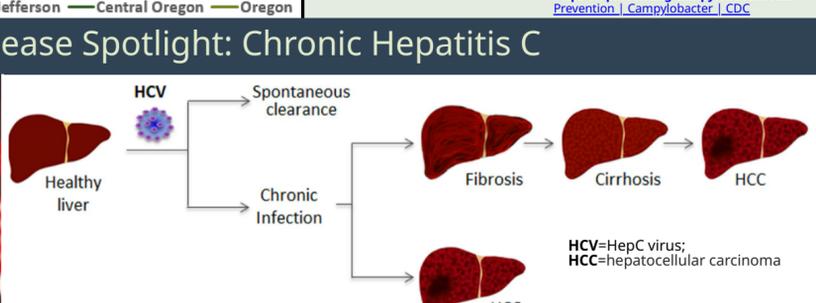
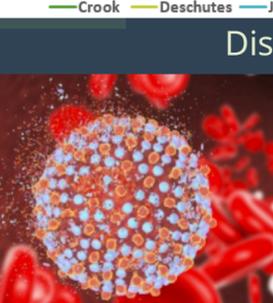


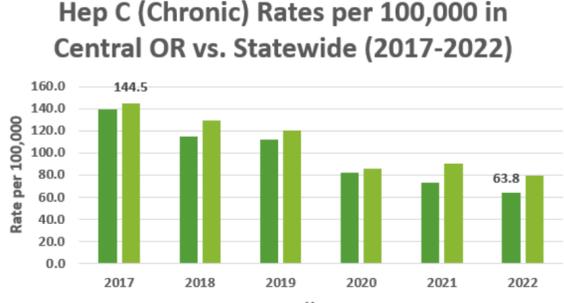
Figure of HepC virus (above) from: [Hepatitis C | MedlinePlus](#)

* Figure 1 (above) from: <https://doi.org/10.3389/fmicb.2017.01833>

- What is Hepatitis C (aka HepC)?** A communicable disease caused by the hepatitis C virus (see image top left) that primarily affects the liver
- What's the differences between chronic and acute infection?** HepC is often divided into 'acute' meaning a new infection (occurring in the first 6 months following exposure to the virus) & 'chronic' meaning a long term infection is occurring (6+ months)
- Spontaneous Clearance:** Did you know ~15-25% of individuals infected in the early acute phase will spontaneously clear the infection?
- Chronic Infection Progression:** For ~70% of those infected, the virus persists in the liver becoming 'chronic'--often leading to liver disease & sometimes cirrhosis or other liver complications (e.g. liver failure; or liver cancer (HCC)) (see fig top right)
- Is there a vaccine for HepC?** No; best way to prevent HepC is by avoiding behaviors (e.g. injecting drugs) that can spread disease

* For more info, access [CDC Viral Hepatitis](#)

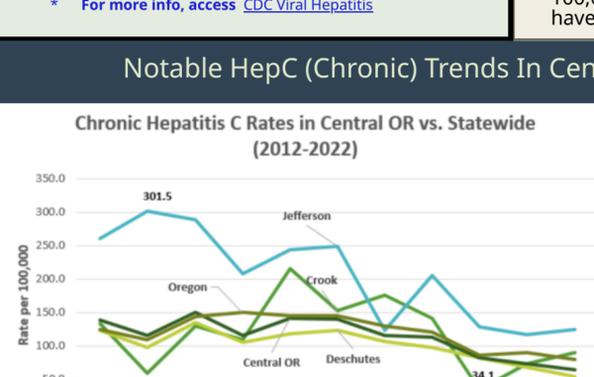
Hep C (Chronic) Rates per 100,000 in Central OR vs. Statewide (2017-2022)



- Chronic HepC [Central OR vs. State Rates]:** Rates of chronic HepC have been declining in both Central OR & the state over the past 6 years; As a point of note, state rates have also been consistently higher than Central OR over this time (see middle fig on right)
- Acute HepC [Central OR vs. State Rates]:** Rates of acute HepC in both Central OR and Statewide are low (<1 per 100,000 from 2017-2022); As with chronic HepC, rates have been decreasing over the past 6 years

Notable HepC (Chronic) Trends In Central OR by County (2012-2022)

Chronic Hepatitis C Rates in Central OR vs. Statewide (2012-2022)



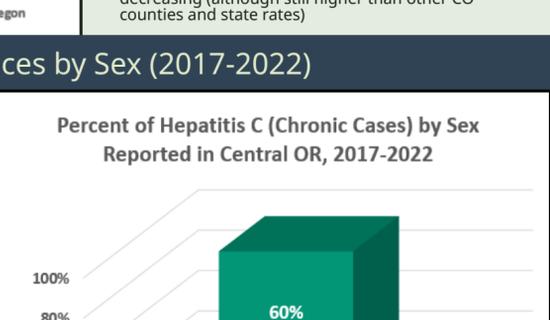
- Central OR (black line):** Across the past 10 years, HepC rates have generally been **trending downwards** in Central OR, similar to overall state of Oregon trends (brown line)
- Crook County (green line):** While Crook County rates have generally been **below state rates** over this time period, there were some noted elevations between 2015-2019
- Deschutes County (dark blue line):** While a slight uptick in HepC was noted in 2014, rates from 2017-2022 have generally **trended downward** and remain lower than state rates
- Jefferson County (blue line):** Jefferson Co HepC rates have generally been **higher than other Central OR counties & state rates** (over the past 10 years) with the exception of 2018 where there was a noted rate drop; From 2019 on, rates have been decreasing (although still higher than other CO counties and state rates)

HepC (Chronic) Differences by Sex (2017-2022)

- Higher HepC Among Males in Central, Oregon:** When looking at data aggregated from 2017-2022, there was a higher percent of males (60%) with HepC compared to females (40%)
- Known Sex Differences:** HepC infection is known to disproportionately affect more men than women. After initial infection, women are more likely to clear the virus spontaneously
- Liver Disease Progression:** Women are also known to have slower rates of liver disease progression compared to men

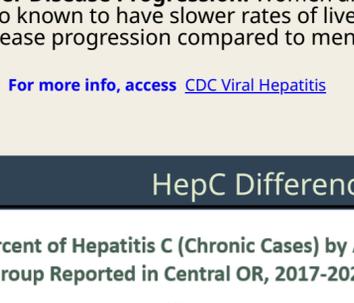
* For more info, access [CDC Viral Hepatitis](#)

Percent of Hepatitis C (Chronic Cases) by Sex Reported in Central OR, 2017-2022



HepC Differences by Age Group (2017-2022)

Percent of Hepatitis C (Chronic Cases) by Age Group Reported in Central OR, 2017-2022



- Approximately half of the chronic HepC cases in Central OR are reported in older adults:** The age group most impacted by HepC is 60yr olds (28%), followed by those in their 50s (23%)
- While the rate of chronic HepC infections has declined in recent years, **the proportion of chronic HepC-infected patients that are older in age has increased**
- Why do more older adults present with chronic HepC infection?** The primary reason is likely due to the **longer duration of infection** in older age groups. Prolonged duration of infection is also associated with faster progression to liver cirrhosis
- What about age groups impacted by acute HepC?** In Central Oregon, only cases <30yrs in age are investigated; Those outside of this range are investigated by the Oregon Health Authority

*For more info, see '[HepC Virus Infection in the Older Patient](#)'

*See '[HepC Surveillance CDC](#)'



HepC: General Screening, Testing, & Prevention Guidelines

- Who should be screened?**
 - ALL adults (18+)** should be screened at least once in a lifetime
 - ALL pregnant women** during each pregnancy
 - One-time screening (regardless of age) among the following:
 - Those with **HIV**
 - People who **ever injected drugs or shared needles/syringes/other drug preparation equipment**
 - Those who ever received maintenance hemodialysis or have persistently abnormal ALT levels
 - Prior recipients of **blood transfusions** or organ transplants
 - Healthcare personnel** who ever had exposures to HepC positive blood



- Testing Recommendations**
 - HepC testing should be initiated with FDA-approved anti-HCV tests
 - NOTE:** People testing positive with anti-HCV positive/reactive should have follow-up testing with FDA-approved nucleic acid test (NAT) for detection of HCV RNA
- Treatment**
 - ~90% of chronic cases clear with antivirals (recommended for patients *not* at high risk of death from other causes)
- Prevention**
 - While no vaccine currently exists, there are a variety of harm reduction strategies for protecting against contracting HepC:
 - Among injection drug users:** Provision of new needles & syringes & treatment of substance use can reduce HepC by 75%
 - Screening of all blood donors
 - Universal precautions** in healthcare settings

*For more information on Oregon investigative guidelines; see '[OHA Hepatitis C Investigative Guidelines, January 2020](#)'