

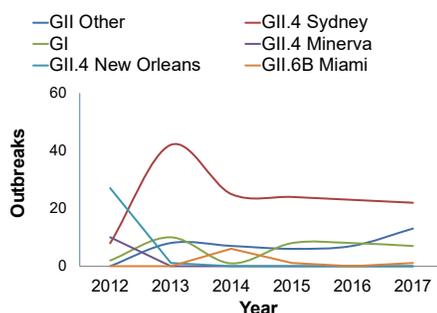
## 2017 COMMUNICABLE DISEASE REPORT

Control of communicable diseases in Oregon relies on laboratories and clinicians reporting to local public health authorities (LPHAs). Laboratories must also forward bacterial isolates for some diseases to the Oregon State Public Health Laboratory for subtyping, which may identify common-source outbreaks. LPHAs investigate cases and take steps to prevent further transmission. Ill persons are interviewed, and demographic, clinical, and potential exposure data collected. LPHA officials educate them on how to reduce transmission of illness and can legally restrict people from work, school, or daycare. This issue of the *CD Summary* summarizes Oregon reportable disease data for 2017.

### OUTBREAK HIGHLIGHTS

Oregon investigated 408 outbreaks of illness in 2017, up 35% from the 303 investigated in 2016. Gastroenteritis is, by far, the most commonly reported type of outbreak in Oregon, accounting for 211 (52%) of the outbreaks investigated. Of note, influenza-like illness was a close second in 2017, with a record-setting year of 148 outbreaks — 36% of the total. We saw a slight increase in the number of norovirus outbreaks among Oregon long-term-care facilities (LTCFs) in 2017 (n=83) when compared to

**Figure 1. Norovirus outbreaks by genotype, Oregon, 2012–2017**



recent years. The GII.4 Sydney strain of norovirus has remained the predominant strain since 2012; it was responsible for 22 outbreaks among Oregon LTCFs in 2017. Since 2015, we have seen an increase in other genotypes. In 2017, GI norovirus accounted for 16% of norovirus outbreaks among Oregon LTCFs (Figure 1).

### WHAT WAS UP IN 2017?

Compared to 2016, Oregon case counts for the following communicable diseases were elevated in 2017: campylobacteriosis, coccidioidomycosis, *Haemophilus influenzae* infection, all acute hepatitises (A,B,C), chronic hepatitis C, Lyme disease, pertussis, Q fever, salmonellosis, Shiga toxin-producing *E. coli* (STEC) infection, shigellosis and yersiniosis.

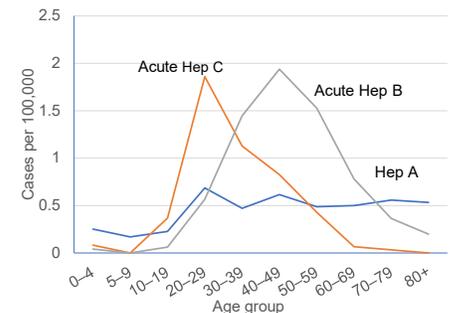
**Campylobacteriosis:** In 2017, 1,069 cases were reported. Children aged 0–4 years had the highest rates of illness (38 per 100,000). Cases diagnosed by culture are considered “confirmed,” while those diagnosed by molecular methods are “presumptive.” The apparent continued increase in 2017 could largely reflect clinical laboratories’ increasing use of molecular diagnostic methods. Culture-confirmed cases remained stable at 630, while presumptive cases rose from 372 to 439.

**Coccidioidomycosis:** Since it became reportable in 2015, we have received 107 reports of this fungal infection, 60 of those in 2017. Age range was 12–86 (mean, 61) years. The causative fungus, *Coccidioides* spp., is in soil. *Coccidioides immitis* has been found in soils near the Tri-Cities of Washington just across the

Columbia River from Oregon.\* We have not yet isolated it from Oregon soil.

**Hepatitis A, B, and C:** Case counts of acute disease were up in 2017. Rates of infection have been highest among those aged 20–39 years (Figure 2).

**Figure 2. Acute hepatitises by age group, Oregon, 2008–2017**



In 2017, Oregon logged 20 cases of acute hepatitis A. Nine of the 20 were acquired by venturing outside Oregon or from household members who traveled outside the United States.

Local health departments investigated 24 acute hepatitis B cases in 2017. Seventeen (71%) were male. Twenty (83%) were interviewed. Commonly reported risk factors included use of drugs (injection and non-injection), ever having been incarcerated, and having multiple sexual partners.

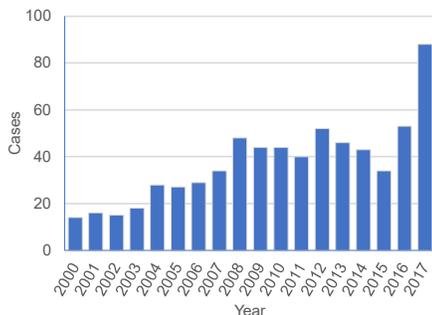
A historic Oregon high of 41 cases of acute hepatitis C were reported, 37 (90%) of them among persons <40 years of age. Twenty-six (63%) were women.

**Chronic hepatitis C:** Reported case rates continue to rise in Oregon. Although most cases reported are still among those born between 1945 and 1965, the number reported in those <30 years of age has been increasing dramatically since 2010 — often due to injection-drug use.

\* [www.doh.wa.gov/ForPublicHealthandHealthcareProviders/NotifiableConditions/Coccidioidomycosis](http://www.doh.wa.gov/ForPublicHealthandHealthcareProviders/NotifiableConditions/Coccidioidomycosis)

**Lyme disease:** Eighty-eight cases were reported during 2017, up from the 53 reported in 2016 (Figure 3). Protection against tick bites and performing tick checks are the best prevention against Lyme and any other tick-borne disease. Lyme disease is more commonly diagnosed in the summer months. By residence the highest number of reported cases (16) was in Clackamas County; the highest rates were in Hood River, Douglas and Josephine counties.†

**Figure 3. Lyme cases by year, Oregon, 2000–2017**



**Pertussis:** In 2017, the reported pertussis incidence in Oregon was 6.0/100,000. The incidence among infants has consistently been higher than that of all other age groups, and infants are the most likely to suffer complications and death. Since 2003, 250 (34%) of the 727 infants diagnosed with pertussis in Oregon have been hospitalized, and five have died. The incidence has been increasing in recent years among adolescents and adults. Immunity wanes with time, so adolescents and adults need a Tdap booster dose.

**Q fever:** Eight cases were reported in 2017, compared to four in 2016. Most of the exposures occurred in the Willamette Valley and among people with exposure to goats or sheep.

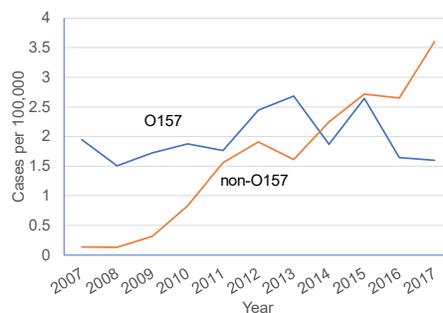
**Salmonellosis:** In 2017, 490 salmonellosis cases and 15 outbreaks were reported in Oregon. The outbreaks accounted for 81 cases. One large outbreak with 18 Oregon cases was associated with eating seafood, most notably fresh tuna sushi. Another national outbreak with seven confirmed Oregon cases was associated with mangos. Outbreaks of multiple *Salmonella* serotypes were related to contact with young poultry.

**STEC infections** increased from 191 in 2016 to 215 in 2017 — mostly attributable to four foodborne

outbreaks resulting in 25 cases.

Over the past 10 years, the number of O157 cases reported statewide has ranged between 57 and 106 annually. Case counts of non-O157 serogroups have increased steadily from single digits in 2007 and 2008 to 144 in 2017. Of the 204 confirmed STECs serotyped in 2017, 60 were O157 and 144 were non-O157, including O26 (52), O103 (20), O121 (16) and 20 other serogroups. More labs are testing for the presence of Shiga toxin rather than just O157 (Figure 4). Unfortunately, at the same time, many labs are dropping culture-based methods, leaving clinicians (and epidemiologists) in the dark as to the specific etiologic agent.

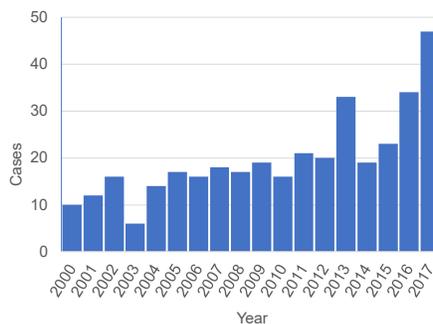
**Figure 4. Shiga toxin-producing *E. coli* (STEC), Oregon, 2007–2017**



**Shigellosis:** Case counts jumped from 101 in 2016 to 128 in 2017. An outbreak of 10 cases of *Shigella sonnei* infections was reported among travelers to a Central American wedding.

**Yersiniosis:** No cases of plague (caused by *Yersinia pestis*) were reported during 2017, but infections by other *Yersinia* species continued to increase — from 34 in 2016 to 47 during 2017, which was the largest number in 30 years (Figure 5). All cases were sporadic; 35 were *Yersinia enterocolitica*. The highest rate was among infants (2.1 per 100,000). Because *Yersinia* is in the molecular-

**Figure 5. Yersiniosis cases by year, Oregon, 2000–2017**



based, multi-pathogen gastrointestinal illness laboratory panels, it is being diagnosed more frequently.

## WHAT WAS DOWN IN 2017?

**Carbapenem-resistant *Enterobacteriaceae* (CRE):** CRE became reportable in Oregon in 2011. One hundred twenty-two cases of CRE infection were reported in Oregon in 2017, down from 171 reported in 2016. Reassuringly, carbapenemase-producing (CP)-CRE cases have been few. By the end of 2017, 17 CP-CRE infections had been identified in Oregon residents: 11 produced *Klebsiella pneumoniae* carbapenemase (KPC), four New Delhi metallo-β-lactamase (NDM) and two oxacillinase-48 (OXA-48). Thirteen (76%) of the CP-CRE infections were from patients with histories of health care exposure outside of Oregon. We have instituted enhanced surveillance and prevention efforts and established the Drug-Resistant Organism Prevention and Coordinated Regional Epidemiology (DROPCRE) Network, a statewide network to rapidly detect, respond to and prevent transmission of CRE. Unlike other areas of the country, we have no indication that CP-CRE are spreading in Oregon.

**Zika:** Six cases of Zika virus disease were reported in 2017, a significant decrease from the 49 reported in 2016. This decrease reflects trends seen in the United States and in regions where Zika virus was circulating broadly. Beyond the six cases, two additional individuals had laboratory evidence of the Zika virus but did not present with any Zika-compatible symptoms.

All cases or their sexual partners reported foreign travel. Most cases had traveled to areas with active Zika transmission, including Mexico, Central America, and the Caribbean.

## CONCLUSION

Thank you for reporting to public health. Check out the complete 2017 report below.

## FOR MORE INFORMATION

- [2017 Communicable Disease Annual Report \(pdf\)](#)
- [Case counts by county of residence \(2017\) \(pdf\)](#)
- [Select diseases by year \(1996–2017\) \(pdf\)](#)

†The tick exposure may have occurred elsewhere.



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