

OREGON PUBLIC HEALTH DIVISION • OREGON HEALTH AUTHORITY

2013 OREGON COMMUNICABLE DISEASE SUMMARY

“One or other of them is often absent for a number of years, and, when re-introduced, spreads to a great extent.” John Snow

Data-driven interventions are the cornerstones of public health. Reportable disease data, though far from perfect, allow us to monitor the disease burden in Oregon, to identify persons at risk, and to target interventions.

AGE MATTERS

Rates of illness from reportable diseases change over the lifespan. Oregon’s 2013 rates of pertussis and of infection by *Campylobacter*, *Giardia*, shiga-toxigenic *E. coli*, and *Salmonella* were all highest among children <5 years of age (Table 1).

Table 1. Incidence (cases/100,000) of selected infections by age group, Oregon, 2013

	Age (years)			
	0–4	5–19	20–59	>60
<i>Campylobacter</i>	35.1	13.6	23.6	24.5
<i>E. coli</i> (STEC)	13.4	9.3	3.1	3.6
Giardiasis	19.6	8.8	9.4	7.6
<i>H. influenzae</i>	4.6	0.4	1.0	6.9
Pertussis	66.0	35.2	2.8	1.9
<i>Salmonella</i>	20.5	9.0	9.1	10.1

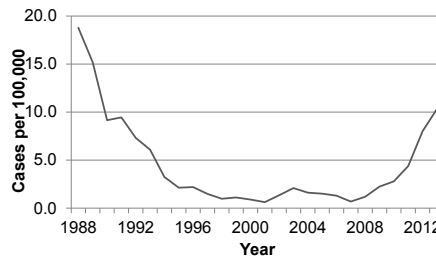
CRE

In its second year of reporting, 111 infections by carbapenem-resistant *Enterobacteriaceae* (CRE) were reported, up from 35 in 2012. Seventy-one percent were among persons ≥60 years of age, though two cases were in infants. During 2013 Oregon confirmed its first New Delhi metalloβ-lactamase (NDM)-producing *E. coli*. The source was a wound culture from an elderly man who had neither been hospitalized nor resided in a long-term care facility in the previous year; testing of contacts found no evidence of transmission.

SYPHILIS SPREADS

In 2013, cases of early syphilis in Oregon continued to swell, from 312 to 404 cases — the highest tally since 1989 (Figure 1). “Early syphilis” comprises primary, secondary and early-latent infections of less than one year’s duration. (It is during these early stages that cases are most

Figure 1. Early syphilis infection Oregon, 1988–2013

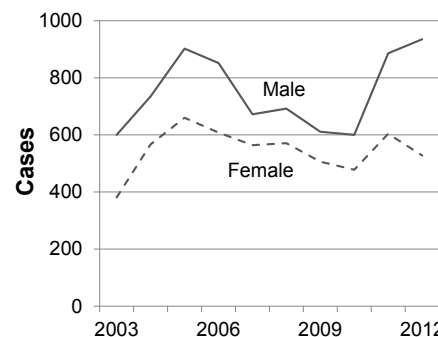


infectious.) Ninety-six percent of the cases were men, and 77% of those interviewed reported having sex with men. More than half of all cases (222) were co-infected with HIV. All persons with HIV should be tested for syphilis at least annually. Report syphilis cases promptly to local public health officials, who try to identify recent sex partners and refer them for testing and treatment.

HOLD THE APPLAUSE

The 1,741 gonorrhea cases reported during 2013 represent an 18% increase from 2012 (Figure 2). Seventy-seven

Figure 2. Gonorrhea cases by year and sex, Oregon, 2003–2013



percent of reported cases were in males. Current recommendations for treating gonorrhea cases and associated sex partners call for 250 mg ceftriaxone intramuscularly (single dose) and concurrent co-treatment with 1 g azithromycin (single dose), or 100 mg doxycycline twice daily for 7 days.* Individuals treated with a different

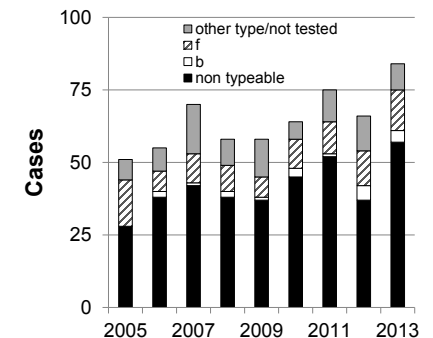
* The recommendation for treatment of possible co-infection with *Chlamydia* applies even if such infection has been “ruled out” by testing.

regimen ought to be re-tested for gonorrhea a week after treatment. Report every case of gonorrhea to public health officials for identification and treatment of sex partners. Also report possible treatment failures.

HUNT FOR HAEMOPHILUS

Eighty-four cases of *Haemophilus influenzae* infection were reported in Oregon in 2013 (Figure 3), yielding an incidence of 2.1/100,000 persons. The highest rate of illness — 12.7 per 100,000 — was in those ≥80 years of age. Four cases of type b infection were reported in 2013, one in an undervaccinated child <5 years of age and three in persons ≥60 years old.

Figure 3. *H. influenzae* infections, by subtype and year, Oregon, 2005–2013



MINIMAL MENING

Few would complain if meningococcal disease were to disappear in Oregon — and it nearly did so during 2013: only 12 cases were reported — an historic low (Figure 4). Unfortunately, two died, a newborn baby and a middle-aged woman.

Figure 4. Meningococcal disease, Oregon, 1988–2013

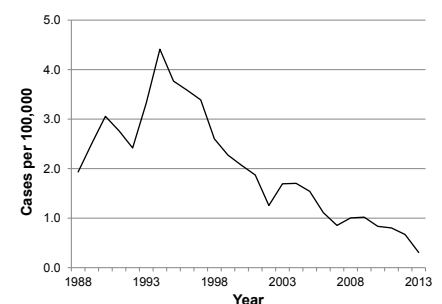


Table 1. Case counts for selected communicable diseases, by county of residence, Oregon, 2013

	AIDS/HIV diagnosis*	Campylobacteriosis	Chlamydia*	Cryptosporidiosis	E. coli O157 infection	Giardiasis	Gonorrhea*	H. influenzae infection	Hepatitis A	Hepatitis B (acute)	Hepatitis B (chronic)	Hepatitis C (acute)	Hepatitis C (chronic)	Legionellosis	Listeriosis	Lyme disease	Meningococcal disease	Pertussis	Rabies, animal	Salmonellosis	Shigellosis	Early syphilis*	Tuberculosis	West Nile virus infection
Baker	0	2	29	111	0	0	1	0	2	0	0	0	22	0	0	0	0	0	1	3	0	0	0	0
Benton	3	21	347	3	6	8	22	2	1	1	8	0	38	0	0	1	0	10	0	5	1	2	2	1
Clackamas	16	87	890	14	16	34	96	7	2	1	43	5	327	2	1	1	2	31	1	40	5	24	1	0
Clatsop	0	4	91	4	0	9	12	3	0	1	5	0	36	0	0	0	0	2	0	5	0	0	0	0
Columbia	1	17	121	2	1	4	10	1	0	3	5	0	34	0	1	0	0	0	0	3	0	0	0	0
Coos	0	10	171	2	1	3	11	2	1	0	4	0	52	1	0	0	0	19	0	5	0	1	0	0
Crook	0	10	45	0	1	1	5	1	0	0	1	0	14	0	0	0	0	0	0	8	0	0	0	0
Curry	1	4	36	0	0	1	1	0	0	0	0	0	26	0	0	0	0	0	0	1	0	1	0	0
Deschutes	4	45	530	2	6	18	12	5	0	0	5	1	168	0	0	1	0	6	1	19	0	1	0	0
Douglas	3	17	289	11	3	7	23	2	0	0	5	0	134	0	0	3	0	3	0	7	1	0	1	0
Gilliam	0	0	0	0	0	1	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0
Grant	0	3	19	0	2	5	0	1	0	0	0	0	5	0	0	1	0	0	2	0	0	0	0	0
Harney	0	5	26	1	0	0	0	0	0	0	0	0	8	0	0	0	0	0	0	1	0	0	0	2
Hood River	1	5	48	0	2	0	2	0	0	0	3	0	6	0	0	1	0	0	0	4	0	1	0	0
Jackson	7	30	740	9	6	14	151	10	2	3	8	0	225	2	0	8	0	23	1	16	4	8	3	0
Jefferson	1	7	87	0	0	1	13	1	0	0	3	0	72	0	0	0	0	1	0	2	0	0	1	0
Josephine	1	9	255	0	3	4	37	3	0	1	4	0	101	1	1	6	0	56	3	5	0	0	0	0
Klamath	1	14	271	3	7	2	26	1	0	0	3	0	71	0	0	2	0	51	0	4	0	0	1	0
Lake	0	3	16	0	1	1	0	0	0	0	1	0	15	0	0	0	0	0	0	0	0	0	0	0
Lane	5	75	1368	7	16	23	216	9	3	1	30	2	421	4	0	1	2	114	0	32	1	21	4	1
Lincoln	1	9	100	6	3	5	3	2	1	0	1	1	79	0	0	1	0	1	0	4	0	1	1	0
Linn	5	27	353	9	9	11	11	6	0	0	3	0	142	1	0	1	1	21	0	11	5	3	0	1
Malheur	2	8	125	0	3	1	17	2	0	0	2	0	33	0	0	0	0	1	0	4	0	0	0	11
Marion	13	47	1359	10	28	10	68	4	2	3	28	1	332	0	1	0	3	53		35	13	23	15	0
Morrow	0	4	25	0	0	0	0	0	0	0	1	0	2	0	0	0	0	0	0	1	0	0	0	0
Multnomah	102	239	3933	34	28	131	788	13	4	12	202	1	952	9	0	12	2	55	0	61	18	238	31	0
Polk	8	9	274	0	1	3	13	4	0	0	5	0	59	0	1	1	0	6	0	18	0	2	1	0
Sherman	0	2	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0
Tillamook	0	6	51	10	3	3	4	0	0	0	2	0	20	0	0	0	0	0	1	2	0	1	0	0
Umatilla	1	16	289	1	5	4	21	1	0	0	4	0	90	1	0	1	0	0	0	11	0	1	0	0
Union	0	3	75	3	2	3	1	0	3	0	0	0	14	0	0	0	0	1	0	1	0	0	0	0
Wallowa	0	5	8	0	0	1	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0
Wasco	1	1	103	0	0	1	11	0	0	1	3	0	21	0	0	1	1	1	0	4	0	2	1	0
Washington	28	87	1838	30	28	48	153	3	8	5	85	1	389	5	2	0	1	26	0	43	7	70	8	0
Wheeler	0	0	2	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0
Yamhill	4	18	346	1	8	5	13	1	0	2	4	0	110	1	0	0	0	4	0	19	0	4	3	0
Total	209	849	14,265	274	189	362	1,741	84	29	34	468	12	4,028	27	7	42	12	485	10	375	55	404	73	16

Orpheus data as of 5/19/2014 Conditions indicated by *are tallied by year of report; others are tallied year of onset.

Table 2. Selected Cases of Notifiable Diseases Year*, Oregon 2004–2013

Disease / Cases	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Campylobacteriosis	661	651	652	729	701	732	862	984	913	849
Chlamydiosis*	8691	9019	9571	9861	10856	11491	12341	13687	13499	14265
Cryptosporidiosis	32	69	85	164	65	224	220	219	218	274
Cryptococcus	2	3	1	3	8	15	19	27	38	51
<i>E. coli</i> O157 (STEC)	70	158	107	85	69	84	119	136	193	189
Giardiasis	445	419	426	463	451	430	487	441	387	362
<i>Gonorrhea</i> *	1302	1562	1460	1238	1260	1116	1078	1490	1470	1741
<i>H. influenzae</i>	49	52	55	68	55	57	69	75	68	84
Hepatitis A	67	47	46	35	27	19	17	12	9	29
Acute hepatitis B	119	105	80	61	47	50	44	33	28	34
Acute hepatitis C	15	20	27	22	32	24	22	23	39	14
Legionellosis	8	15	22	14	18	19	18	24	32	27
Listeriosis	7	11	13	8	6	19	17	10	15	7
Lyme disease	28	26	28	33	48	44	44	40	48	42
Malaria	19	13	15	17	4	12	16	23	12	14
Measles	0	2	2	2	1	0	0	3	1	6
Meningococcal disease	61	57	41	32	38	40	32	31	26	12
Pertussis	614	622	113	131	174	255	285	329	910	485
Rabies, animal	6	8	25	12	14	11	17	17	17	10
Salmonellosis	414	414	424	332	428	440	511	367	399	375
Shigellosis	87	127	121	87	93	56	57	58	92	55
Early Syphilis*	57	58	49	26	44	86	108	170	312	404
Tuberculosis	106	103	81	94	75	89	87	74	61	73
Vibriosis (non-cholera)	12	9	19	8	12	19	26	7	19	28
West Nile virus	5	9	73	27	16	13	0	0	13	16
Yersiniosis	14	17	16	18	17	19	16	21	20	33

Orpheus data as of 5/19/2014. Case Counts By onset year except for conditions noted with * which indicates counts by date of report.

Table 3. Hospitalizations and deaths from reportable diseases, Oregon, 2013

Condition	Hospitalizations	Deaths
Botulism	4	1
Campylobacteriosis	58	1
Carbapenem-resistant <i>Enterobacteriaceae</i>	65	2
Cryptococcosis	30	2
Cryptosporidiosis	14	0
<i>E. coli</i> (STEC) infection	58	2
Giardiasis	3	1
<i>Haemophilus influenzae</i>	77	5
Hepatitis A	9	0
Hepatitis B, acute	13	0
Hepatitis B, chronic	23	2
Hepatitis C, chronic	63	13

Condition	Hospitalizations	Deaths
HIV	55	7
Legionellosis	27	1
Listeriosis	7	0
Lyme disease	2	0
Malaria	8	0
Measles	2	0
Meningococcal disease	12	2
Pertussis	13	0
Salmonellosis	79	1
Shigellosis	15	0
Tuberculosis	NA	5
West Nile virus infection	7	0
Yersiniosis	7	1

Orpheus data as of 4/28/2014



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TREATING LTBI

Be aware of the new 12-dose isoniazid (INH)-rifampine regimen for treatment of latent TB infection (LTBI). Directly observed therapy (DOT) with just 12 once-weekly doses of INH+rifampine is as effective for LTBI as self-administered therapy with INH alone daily for 9 months. Not surprisingly, patients are more likely to complete the 12-dose regimen than the 9-month regimen of daily INH,¹ and the risk of hepatotoxicity is lower. (The number of cases of *TB disease* itself remain low. Seventy-three cases of tuberculosis were reported in 2013, up slightly from the 61 reported in 2012.)

INFLUENZA ATTACKS

The 2013–2014 influenza season was more active than usual. The 2009 H1N1 virus (yes, the same one that circulated in the 2009 pandemic) was the dominant strain, and in the Portland metro area, we recorded 623 laboratory-confirmed influenza hospitalizations — more than during all of the 2009 pandemic. Your guess is as good as ours as to why the 2009 virus came back with such gusto after several low-activity seasons.

PESKY PERTUSSIS

Despite the overall decrease in the number of reported pertussis cases last year, Klamath, Josephine, Lane and Coos counties experienced large community outbreaks during 2013. Vaccination remains the mainstay of pertussis prevention; antibiotic prophylaxis is recommended for close contacts of cases who themselves have close contact with (or who are) an infant or pregnant woman. Tdap

vaccine is now recommended for all pregnant women — during *each* pregnancy — preferably at 27–36 weeks' gestation.

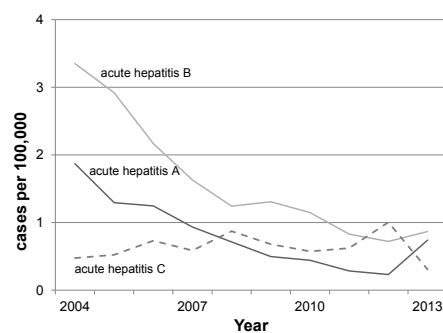
MEASLES MONOLOGUE

Six Oregonians caught the measles during 2013 — our highest case count in 14 years. Marion County sported two clusters — initiated by an unvaccinated index case exposed in Eastern Europe and two additional cases among unvaccinated contacts. A separate Marion County case was unvaccinated and exposed in China. Two Washington County cases occurred among vaccinated persons — the index case exposed in India, the other a close contact.

HEPATITIS HICCUPS

Hepatitis A and acute hepatitis B rebounded from the record lows of 2012, with 29 and 34 cases, respectively, in 2013. Twelve cases of acute hepatitis C were reported (Figure 5). Of note, five cases of hepatitis E were also reported in 2013.

Figure 5. Acute hepatitis, Oregon, 2004–2013



THE FUNGUS IN THE FRONTIER

Reported cryptococcosis continues to climb, to 51 in 2013, up from 38 in 2012. Seventeen (40%) of the 42 that were speciated were *neoformans*, 12 (29%) were *gattii*, and 7 (17%) were *albidus*; also 3 *uniguttulatus*, 2 *laurentii*, and 1 *liquefaciens*.

TICKS & MOSQUITOES

Lyme disease continues to be the most commonly reported vectorborne illness in Oregon; 42 cases were reported in 2013. West Nile virus infections (meningitis or fever) crept up slightly: 16 cases reported, up from the 12 reported in 2012, after "goose eggs" in 2010 and 2011. Eleven of the 16 were among residents of Malheur County.

OTHER NOTABLES

Four cases of botulism, all type A, were reported during 2013; three were infants <6 months of age and one a home-canned foodborne case. Three cases of tularemia, two of brucellosis, and one case of tetanus were also reported. Cases by county of residence for 2013 and counts for the last 10 years are tallied in Tables 1 and 2, respectively.

All of these data come with the usual caveats about incompleteness and biases inherent in seeking of medical attention, testing, and reporting to public health officials.

FOR MORE INFORMATION

View the full report will be available at <http://public.health.oregon.gov/DiseasesConditions/CommunicableDisease/DiseaseSurveillanceData/AnnualReports/Pages/arpt.aspx>. Publication date is September 2014.

REFERENCES

1. Sterling TR, Villarino ME, Borisov AS, Shang N, et al. Three months of rifampine and isoniazid for latent tuberculosis infection. *NEJM* 2011;365:2155–66. Available at www.nejm.org/doi/full/10.1056/NEJMoa1104875.