

OREGON PUBLIC HEALTH DIVISION • OREGON HEALTH AUTHORITY

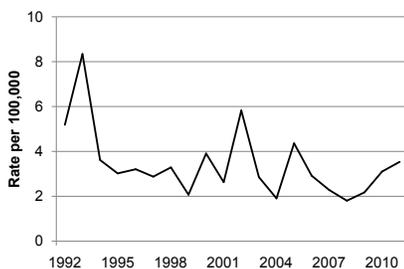
2011 OREGON COMMUNICABLE DISEASE SUMMARY

This issue of the *CD Summary* presents reported communicable diseases in Oregon for 2011. The data are accompanied by the usual caveats: not all diseases are diagnosed and reported; not all reported diseases are investigated by local public health officials. Diseases with the potential for rapid spread (e.g., measles, pertussis), and severe diseases (e.g., meningococcal disease) take priority. Little beyond case counting occurs for highly prevalent diseases like chlamydia — which trumps all other reportable diseases in sheer magnitude but rarely kills (Table 3, page 3). What follows are some of the highlights.

WHAT'S UP WITH STEC?

Shiga-toxigenic *Escherichia coli* (STEC) infections, most commonly O157:H7, were on the rise again in 2011. Oregon's O157 rate (1.8 per 100,000 in 2011) has been consistently higher than that of the United States as a whole (0.9 per 100,000 in 2010; Figure 1). Though the national rate has reached the Healthy People 2010 target, Oregon's numbers continue to increase. We identified five STEC outbreaks in 2011, the largest of which (17 cases, 2 fatal) was the first strawberry-associated outbreak of *E. coli* O157 infection ever reported. Visits to a petting zoo and a county fair were the likely culprits in two STEC outbreaks, one was related to venison consumption and the fifth remains unsolved. The increasingly common laboratory practice of testing stools for shiga toxin

Figure 1. STEC incidence, Oregon, 1992–2011

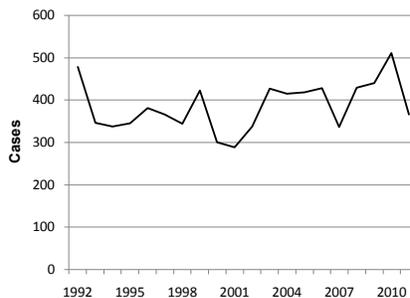


— which can be elaborated by *E. coli* serogroups other than O157 — might account for some of the increase in Oregon's STEC incidence. Labs are required to forward shiga-toxin-positive specimens to the Oregon State Public Health Lab (OSPHL) for additional testing and serotyping. Coincident with the STEC increase were an alarming 14 cases of hemolytic uremic syndrome in 2011, 10 of them in children <14 years of age. Stools from all 14 cases grew STEC in culture; 13 were O157.

SALMONELLA SURRENDERS?

Perhaps safe food-handling practices and media attention to *Salmonella* outbreaks drove incidence down in 2011; the salmonellosis case count (366) was notably lower in 2011 than in recent years (median 428/year since 2004). The number of outbreaks (12) regressed toward Oregon's 19-year median of 10 per year (range, 7–22). Forty-six cases during 2011 were outbreak-related. All that said, it's hard to see any trend over recent years (Figure 2).

Figure 2. Salmonellosis, Oregon, 1992–2011



SYPHILITIC SWELLS

In 2011, the reported early syphilis case count in Oregon jumped 59% from that of 2010 — from 106 to 167 cases — our highest tally since 1991. "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 infectious.

Seventy-eight percent of early syphilis cases were white, and 86% lived in the Portland Tri-County area.

One hundred sixty-six of the 167 were male, and 161 (96%) were men who have sex with men (MSM). Of 106 MSM reported with syphilis during 2010 whose HIV infection status was known, 45 (42%) were co-infected with HIV. All HIV-positive individuals receiving health care should be tested for syphilis at least annually. Early syphilis cases need to be reported to local public health authorities for interview to identify recent sex partners, who can be referred for testing and treatment.

COUNTLESS CHLAMYDIA

Okay, we counted 'em: 13,689 cases of chlamydia were reported in Oregon during 2011 — up 11% from 2010 and accounting for a whopping 59% of all reported diseases in Oregon. High case counts may simply mean that recommendations for screening are being followed: sexually active females <25 years of age should be annually tested for *Chlamydia*, and those infected should be treated promptly and counseled about risk. Their sex partners of the preceding 60 days should be referred for evaluation and treatment (or at least for treatment).

So for now, anyway, "Up, up with *Chlamydia!*" Maybe it's working: recent data from NHANES suggest that the overall prevalence of *Chlamydia* infection in the U.S. declined from 2.6% in 1998 to 1.6% in 2008.¹

GONORRHEA GAINING

The 1,490 gonorrhea cases reported during 2011 represented a 38% increase over the 2010 total (Figure 3, page 4). Most are from the Portland Tri-County area. Notable increases were seen among African Americans and MSM. The currently recommended treatment for gonorrhea cases and their sex partners is 250 mg ceftriaxone intramuscularly (single dose). Routine concurrent treatment with 1 g azithromycin (single dose) or 100 mg of doxycycline (twice daily for 7 days) is recommended. The recommendation for co-treatment with azithromycin or

Table 1. Case counts for selected communicable diseases, by county of residence, Oregon, 2011

	HIV/AIDS*	Campylobacteriosis	Chlamydia	Cryptosporidiosis	E. coli O157 infection	Giardiasis	Gonorrhea	Haemophilus influenzae	Hepatitis A	Hepatitis B (acute)	Hepatitis B (chronic)	Hepatitis C (acute)	Legionellosis	Listeriosis	Lyme disease	Malaria	Meningococcal Disease	Pertussis	Rabies, animal	Salmonellosis	Shigellosis	Early Syphilis	Taeniasis	Tuberculosis	West Nile	Total
Baker	0	8	18	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	31
Benton	3	23	306	23	8	12	18	2	0	0	5	1	0	1	3	4	0	11	1	4	3	1	0	2	0	431
Clackamas	28	102	974	23	11	30	93	8	1	4	40	1	2	1	2	0	1	46	1	46	4	6	0	9	0	1433
Clatsop	0	7	128	6	4	4	5	1	0	1	0	0	0	0	0	0	1	9	0	2	0	0	0	0	0	168
Columbia	2	8	132	2	0	2	9	1	0	0	1	0	0	0	0	0	0	3	0	7	0	2	0	0	0	169
Coos	1	23	179	0	4	4	2	2	0	0	4	0	0	0	0	0	1	0	0	7	3	0	0	1	0	231
Crook	0	6	28	1	0	0	2	0	0	0	1	0	0	0	0	0	4	1	0	4	0	2	0	0	0	49
Curry	0	8	33	0	0	3	1	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	0	1	0	48
Deschutes	9	58	513	0	5	25	6	1	1	1	9	1	0	0	0	0	4	1	0	16	0	1	0	0	0	651
Douglas	2	25	219	1	10	7	2	3	0	0	6	2	0	0	6	0	2	3	0	7	0	0	0	0	0	295
Gilliam	0	2	4	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Grant	0	4	11	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	17
Harney	0	6	19	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	28
Hood River	0	6	48	0	1	2	2	0	2	0	0	0	0	0	0	0	0	0	0	6	0	2	0	0	0	69
Jackson	6	43	528	4	9	9	41	4	0	1	11	0	1	0	7	0	2	7	2	17	1	0	0	1	0	694
Jefferson	2	3	140	0	0	2	0	0	0	0	1	0	0	0	0	0	0	0	0	5	0	0	0	1	0	154
Josephine	4	13	224	0	1	9	7	7	0	0	3	0	1	0	5	0	0	5	7	4	0	1	0	1	0	292
Klamath	3	18	199	1	0	9	24	4	1	0	4	2	0	0	1	0	0	1	0	6	0	1	0	0	0	274
Lake	0	5	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	0	0	0	11
Lane	23	89	1297	13	3	46	81	4	0	3	21	5	7	2	4	2	3	42	1	39	8	2	0	3	0	1698
Lincoln	3	9	82	3	0	4	2	2	0	0	4	0	1	1	0	0	1	1	0	1	2	0	0	2	0	118
Linn	4	44	389	14	6	10	34	4	0	1	5	1	1	0	2	4	0	2	1	13	3	1	0	0	0	539
Malheur	3	11	124	1	5	1	0	0	1	1	3	0	0	0	0	0	1	0	0	0	0	1	0	1	0	153
Marion	16	61	1498	16	12	27	81	5	0	2	27	3	1	0	0	2	1	31	1	26	13	4	1	8	0	1836
Morrow	1	5	17	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	28
Multnomah	145	201	3991	58	17	147	892	15	3	9	202	5	6	1	8	8	7	110	0	68	13	116	2	27	0	6051
Polk	1	10	202	0	1	6	13	1	0	1	0	1	1	0	1	0	0	6	0	5	0	2	0	2	0	253
Sherman	0	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Tillamook	2	8	60	5	0	2	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	80
Umatilla	4	6	246	1	3	4	6	0	0	0	4	1	0	0	0	0	0	1	0	6	0	2	0	1	0	285
Union	1	9	85	1	0	3	2	1	0	1	2	0	0	0	0	0	0	0	0	3	1	0	0	0	0	109
Wallowa	0	2	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	0	9
Wasco	1	4	67	1	1	5	1	1	0	2	0	0	0	1	0	1	0	2	0	2	0	0	0	0	0	89
Washington	32	131	1641	29	22	53	145	7	2	5	67	1	3	1	0	2	3	35	1	53	5	23	2	14	0	2277
Wheeler	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Yamhill	4	25	276	3	9	6	19	2	0	0	7	0	0	0	1	0	0	2	1	10	0	0	0	0	0	365
Total	301	983	13689	208	136	436	1490	75	11	32	432	24	24	10	40	23	31	319	17	366	57	167	5	74	0	18950

Data as of 4/11/2012. Condition indicated by * is tallied by year of report; others are tallied year of onset.

Table 2. Selected cases of reportable diseases by year,* Oregon, 2000–2011

Disease / Cases	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Campylobacteriosis	568	598	575	597	656	647	652	729	696	733	862	983
Chlamydia*	7110	7504	7200	7500	8690	9019	9578	9867	10861	11497	12337	13689
Cryptosporidiosis	22	60	40	36	32	69	82	163	64	220	208	208
<i>E. coli</i> O157 (STEC)	136	97	210	105	70	158	107	85	69	83	118	136
Giardiasis	673	535	431	406	443	417	425	462	448	429	490	436
Gonorrhea*	1039	1145	929	981	1302	1562	1460	1238	1258	1113	1077	1490
<i>H. influenzae</i>	30	38	57	42	49	53	55	66	57	57	68	75
Hepatitis A	164	109	61	62	65	47	47	34	26	19	17	11
Hepatitis B, acute	123	166	126	119	112	97	86	61	45	50	44	32
Hepatitis C, acute	18	15	13	16	17	19	28	22	33	26	22	24
Legionellosis	1	4	9	17	8	15	22	14	18	19	17	24
Listeriosis	6	12	9	5	7	11	13	8	6	19	17	10
Lyme disease	12	14	13	16	25	24	19	27	38	42	39	40
Malaria	41	14	14	10	19	13	15	16	4	12	16	23
Measles	0	3	0	3	0	2	2	2	1	0	0	3
Meningococcal disease	71	65	44	60	61	56	41	32	38	39	32	31
Pertussis	105	66	193	438	625	622	112	111	178	258	285	319
Rabies, animal	7	4	14	7	6	8	25	12	13	11	17	17
Salmonellosis	300	288	337	427	416	417	428	336	429	440	512	366
Shigellosis	159	115	106	211	87	127	121	87	94	56	59	57
Early Syphilis*	31	22	47	74	58	57	48	26	45	86	107	167
Tuberculosis*	119	123	111	106	106	103	81	94	75	89	87	74
Vibriosis	7	6	9	5	11	6	19	7	10	19	26	7
West Nile virus					3	8	73	27	16	12	0	0
Yersiniosis	10	12	16	6	14	17	16	18	17	19	17	18

Data as of 4/11/2012. Conditions indicated by * are tallied by year of report; others are tallied year of onset. Blank cell indicates condition not reportable that year.

Table 3. Hospitalizations and deaths from reportable diseases, Oregon, 2011

Condition	Cases	% Hospitalized	# Deaths
Campylobacteriosis	983	8	0
Chlamydia	13,689	§	0
Creutzfeldt-Jakob disease (CJD)	15	20	13
Cryptosporidiosis	208	8	1
Cryptococcosis	14	61	3
<i>E. coli</i> STEC infection	136	31	3
Giardiasis	436	2	0
Gonorrhea	1,490	§	0
<i>H. influenzae</i> infection	75	94	10
Hepatitis A	11	27	0
Acute hepatitis B	32	24	0
Chronic hepatitis B	431	4	1
Chronic hepatitis C	5,465	2	27
Acute hepatitis C	24	36	0

Condition	Cases	% Hospitalized	# Deaths
Legionellosis	24	67	2
Hemolytic uremic syndrome	14	86	2
Listeriosis	10	100	3
Lyme disease	40	5	0
Meningococcal disease	31	97	2
Pertussis	319	7	0
Salmonellosis	366	20	6
Shigellosis	57	26	0
Syphilis	167	§	0
Tuberculosis	74	19	4
Vibriosis	7	0	0
Yersiniosis	18	6	0

§Unknown, hospitalization not routinely ascertained

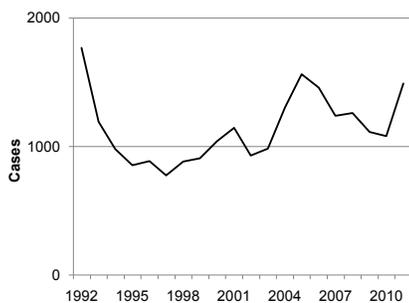


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doxycycline applies even if chlamydial infection is ruled out. Recent gonorrhea isolates, including some from Oregon, have had reduced susceptibility to cephalosporins, though not outright "resistance." The theory is that routine treatment of gonorrhea with a second drug to which it is generally sensitive will help to forestall cephalosporin resistance. Every person diagnosed with gonorrhea should be interviewed by public-health officials to assure that sex partners in the past 60 days are referred for evaluation and treatment. Report possible treatment failures to the local public health authority of the patient's county of residence.

Figure 3. Gonorrhea, Oregon, 1992–2011



HEPATITIDES HUMBLLED?

Reported hepatitis A and acute hepatitis B hit record lows with 11 and 32 cases, respectively, in 2011 (Figure 4). Of the 11 cases of acute hepatitis A, five had a history of travel to Mexico, leaving but six cases presumably acquired in Oregon. Hepatitis A has plummeted since the first vaccine against it was licensed in 1995. Dare we hope for its elimination? Among risk factors for acute hepatitis B, MSM continues to rise, while case counts among injection drug users have been falling (Table 4).

Figure 4. Acute hepatitis A and B, Oregon, 1992–2011

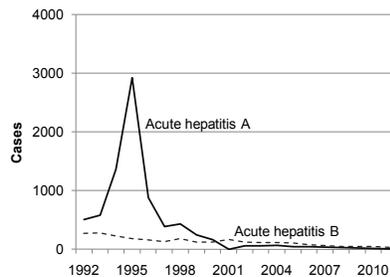


Table 4. Acute hepatitis B cases by risk factor, Oregon, 2008–2011

Year	MSM	IDU
2008	1	12
2009	5	6
2010	6	5
2011	6	2

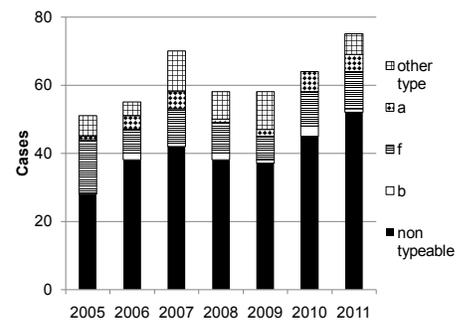
MENINGOCOCCI MODERATED

Meningococcal disease has been steady in Oregon since 2006, with annual case counts ranging from 31 to 41. With 31 cases in 2011, our incidence was 0.80 per 100,000 — below the HP2010 objective of 1 per 100,000 but still above the national average (0.24/100,000). The outbreak reported from Prineville in January 2012 actually started in 2011 with 3 serogroup C infections over a three-month period. All cases were <25 years of age. The Crook County Health Department recommended vaccination of all persons aged 9 months through 25 years who lived, worked, attended school or attended day care in Prineville. No new cases have been reported since January.

HUNT FOR HAEMOPHILUS

Seventy-five cases of *Haemophilus influenzae* infection were reported in Oregon in 2011, yielding an incidence of 1.9/100,000 persons. This is the highest number of cases reported since 1989 and 19% higher than the incidence during the previous five years (1.6/100,000/year). Nationally, there has been increased recognition of non-serotype b and non-typeable cases in persons >5 years of age, especially among those ≥65 years of age, and Oregon data show a similar trend. We are currently working with CDC to review details of invasive *H. influenzae* infections in persons ≥65 years of age to understand better the burden of disease within this age group (Figure 5).

Figure 5. *H. flu* by type, Oregon, 2005–2011



TB TUMBLING

The 74 cases of tuberculosis reported in 2011 represent an historically low incidence for Oregon — 1.9 per 100,000. Nationally, 10,521 cases were reported, for an incidence of 3.4 per 100,000 — a 6.4% drop from 2010. This is the lowest rate recorded since national reporting began in 1953.

REFERENCES

1. Datta SD, Torrone E, Kruszon-Moran D, et al. *Chlamydia trachomatis* trends in the United States among persons 14 to 39 years of age, 1999–2008. *Sex Transm Dis* 2012; 39:92–6.