

## Salmonellosis

Salmonellosis is a bacterial illness characterized by acute abdominal pain, diarrhea, and often fever, that usually begins one to five days after exposure. Excretion of *Salmonella* may persist for several days or even months beyond the acute phase of illness. Antibiotics are not needed by most patients (the exceptions being those at high risk of invasive infection), and they may increase the duration of excretion.

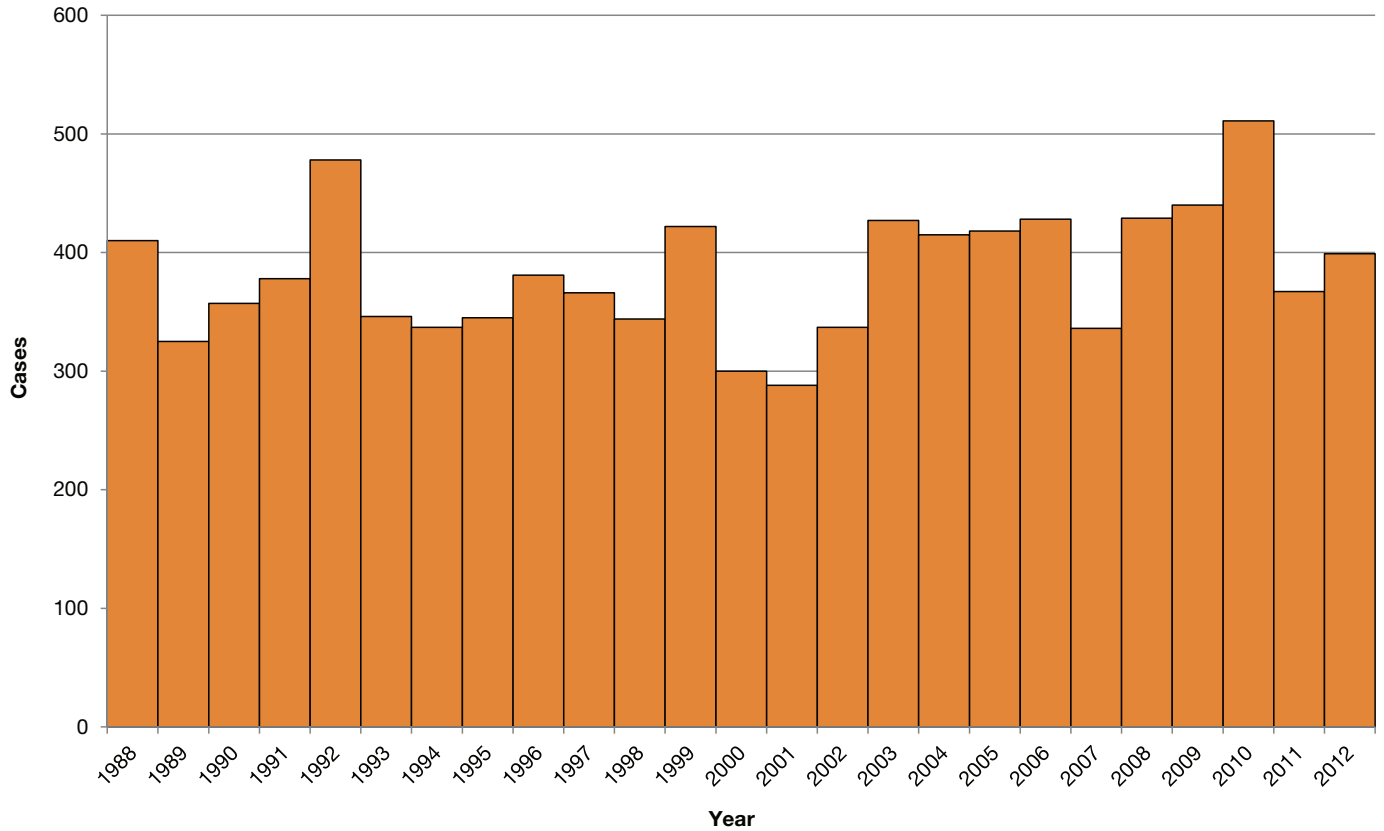
A wide range of domestic and wild animals are carriers of *Salmonella*, including poultry, swine, cattle, rodents, iguanas, tortoises, turtles, snakes, young poultry, dogs and cats. Most human infections are thought to come from consumption of fecally contaminated food or water, but other environmental exposures may be hard to document and therefore underappreciated. Raw or undercooked produce and products of animal origin — such as eggs, milk, meat and poultry — have been implicated as common sources of animal and human salmonellosis. Though not as common as *Escherichia coli* O157 infection, person-to-person transmission

of salmonellosis is well documented. The incidence of reported infection is highest among children <5 years of age.

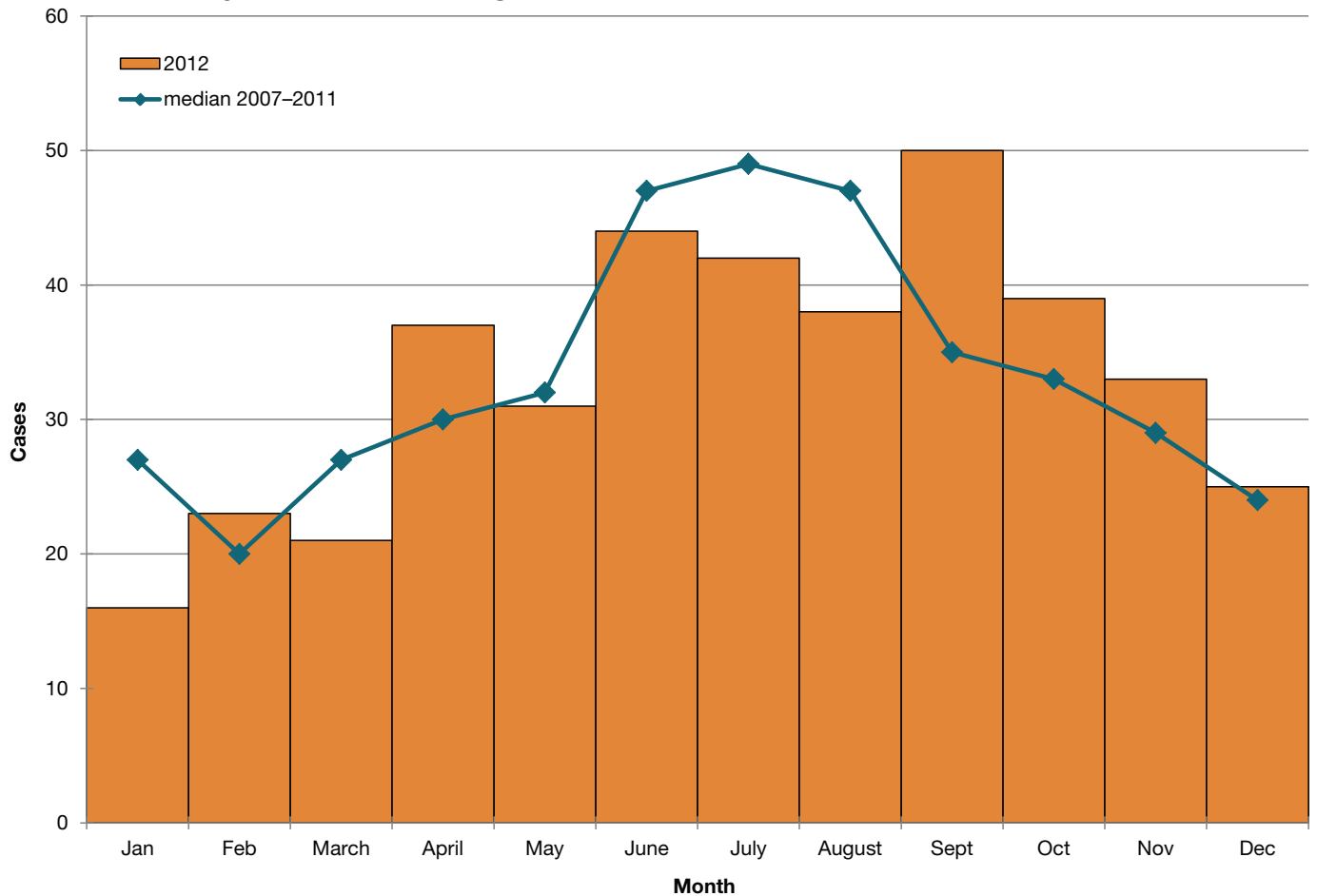
Of approximately 2,500 known serotypes, only about 200 are detected in the United States in any given year. In Oregon, *S. Enteritidis* and *S. Typhimurium* have historically been the two most commonly reported serotypes, comprising 19% and 13% of all lab-confirmed isolates in 2012, respectively. However, an outbreak of *S. Heidelberg* infections propelled that serotype into the #2 spot (15%) during 2012.

In 2012, 399 salmonellosis cases were reported in Oregon, down from 517 in 2010 and 441 in 2009. Eleven outbreaks of salmonellosis were reported. Most of these were small; however, one large outbreak related to consumption of chicken accounted for 44 cases. Six outbreaks involved commercial products with cases in multiple states: four linked to animal exposure (baby chicks, pet hedgehogs, and turtles), one linked to mangos, and the last remaining unsolved despite an investigation.

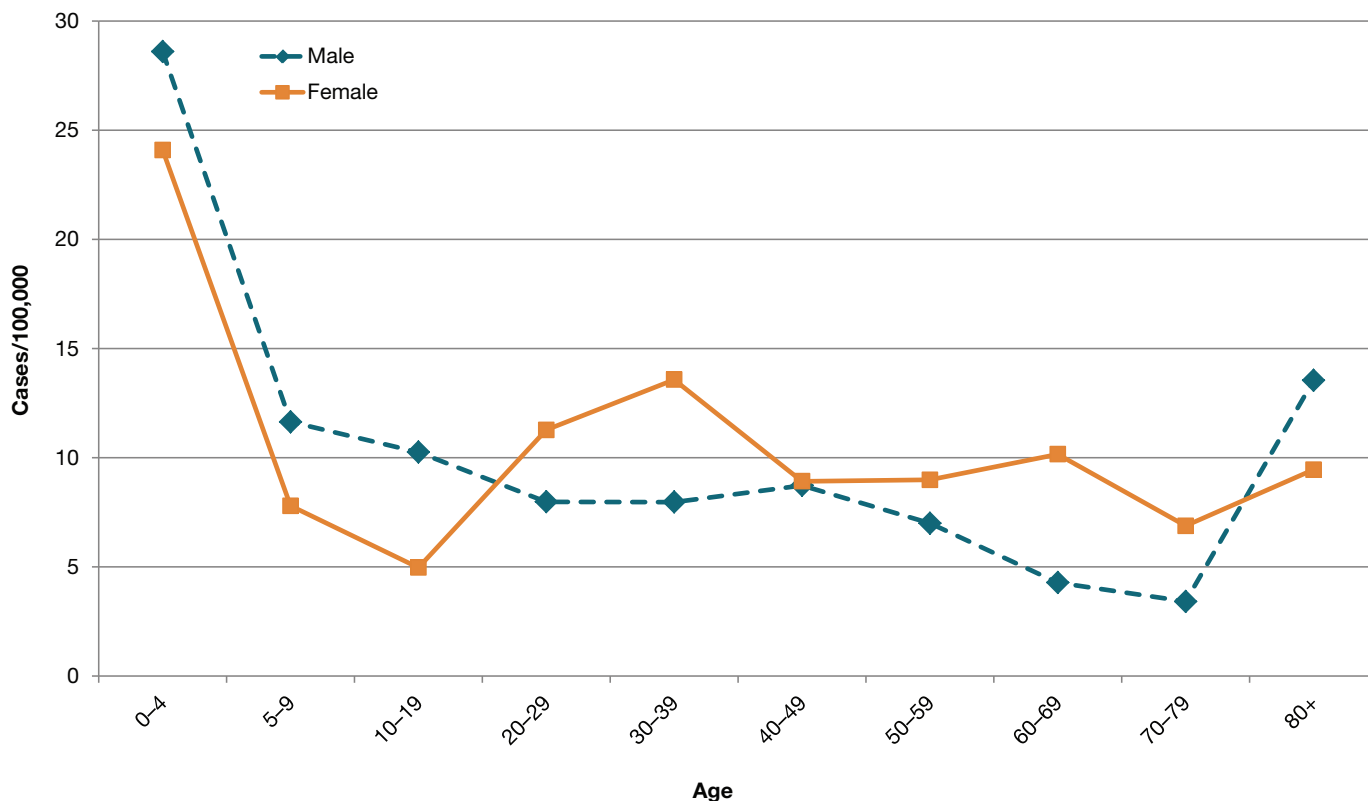
### Salmonellosis by year: Oregon, 1988–2012



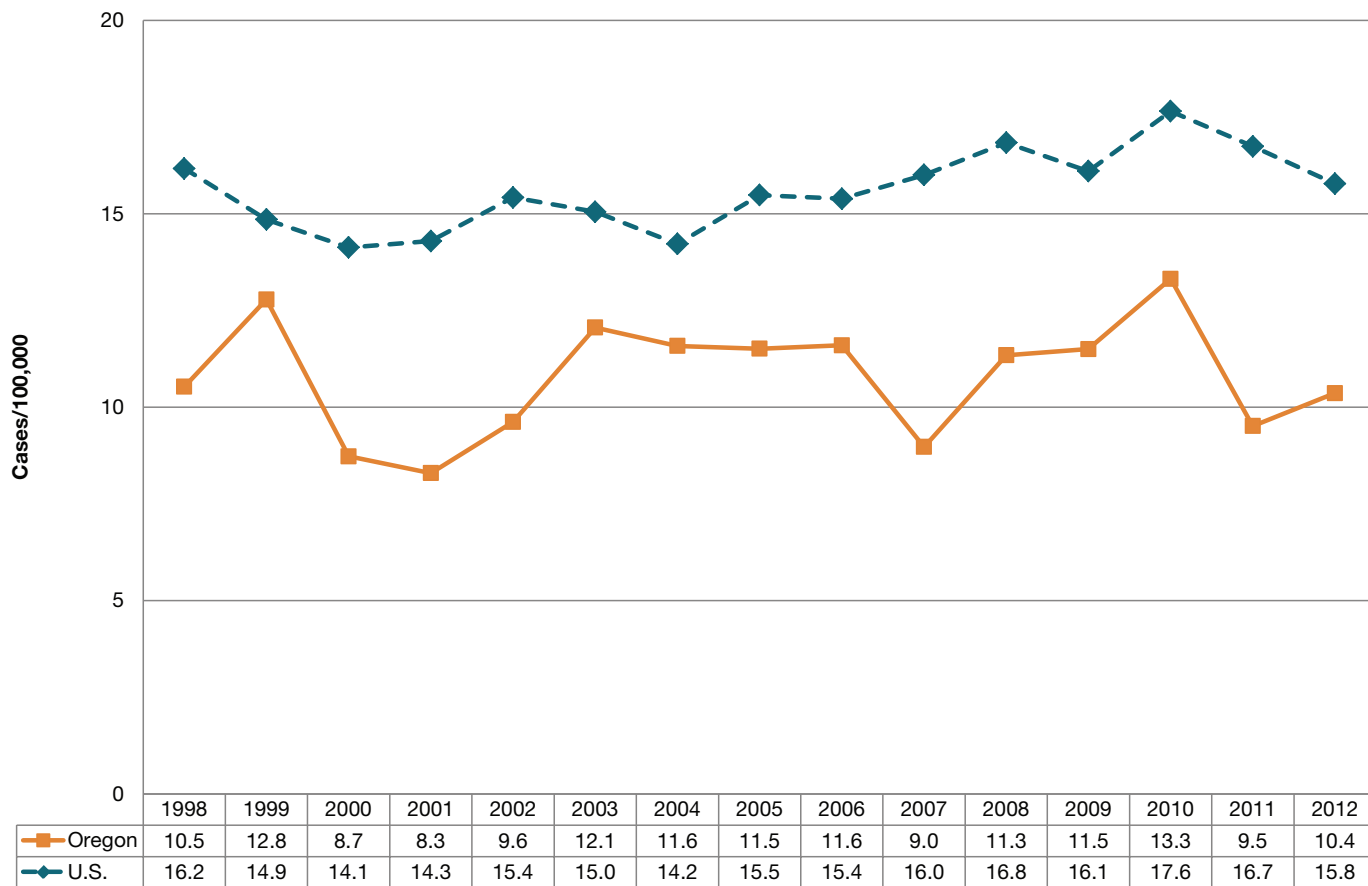
### Salmonellosis by onset month: Oregon, 2012



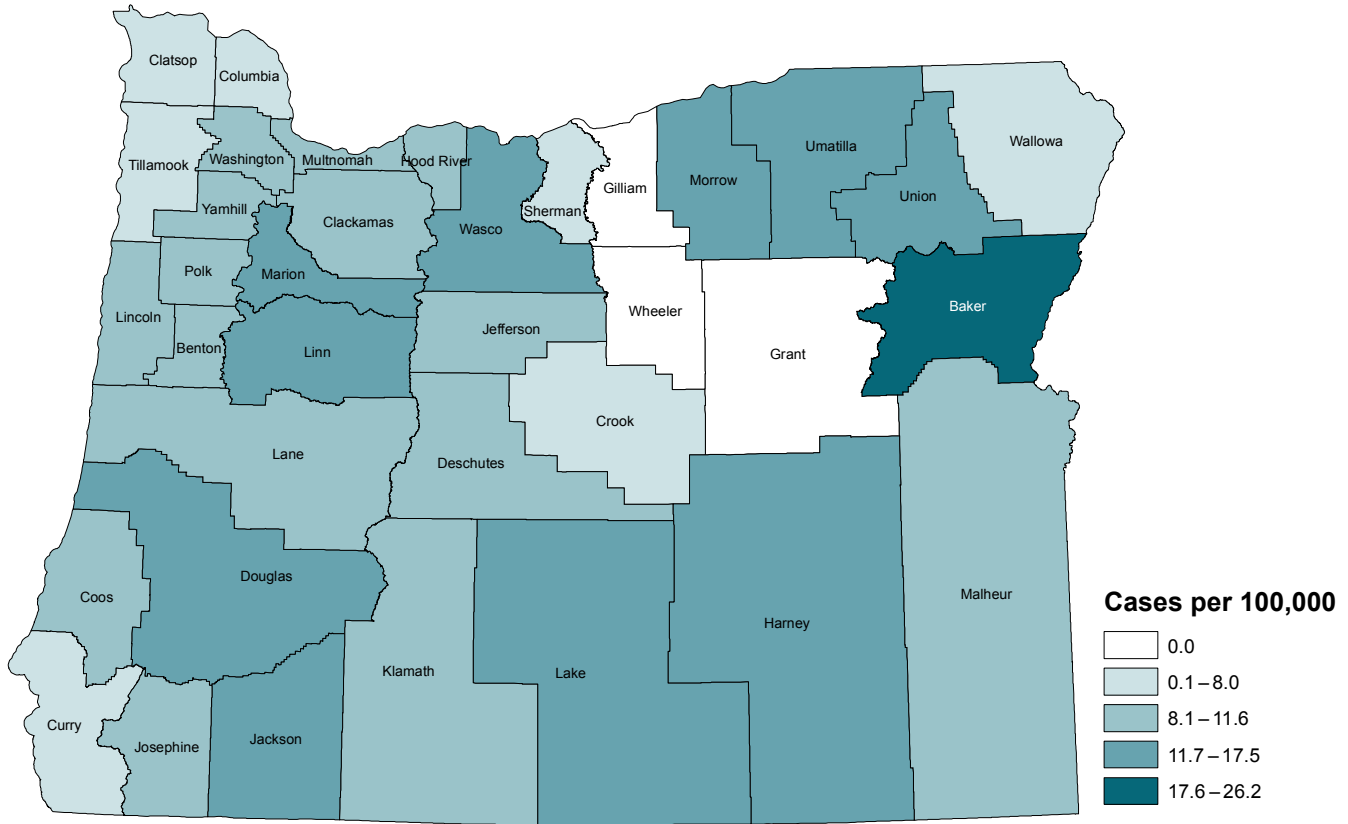
### Incidence of salmonellosis by age and sex: Oregon, 2012



### Incidence of salmonellosis: Oregon vs. nationwide, 1998–2012



### Incidence of salmonellosis by county of residence: Oregon, 2003–2012



### Selected\* salmonellosis cases by serotype, Oregon, 2003–2012

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Braenderup	1	2	1	11	8	1	21	36	9	10
Enteritidis	78	64	86	74	54	76	61	123	67	74
Hadar	6	3	5	5	1	3	7	8	8	11
Heidelberg	12	42	51	19	26	23	44	28	13	57
Infantis	2	10	5	7	5	8	9	9	13	15
Montevideo	16	15	15	13	12	15	22	12	17	13
Muenchen	5	7	8	8	9	9	10	10	5	5
Newport	38	14	17	16	17	15	15	24	13	8
Oranienburg	13	6	8	5	8	8	6	8	11	8
Saintpaul	36	16	7	10	3	23	10	13	8	3
Thompson	2	1	6	9	4	7	12	14	14	9
Typhimurium	83	86	84	90	52	65	74	40	47	50

\*Selected because at least one case was reported in 2012 and it is a more common serotype.

**Prevention:**

- Cook poultry, ground beef, and eggs thoroughly.
- Do not eat or drink foods containing raw eggs, or raw (unpasteurized) milk.
- If you are served undercooked meat, poultry or eggs in a restaurant, send it back to the kitchen for further cooking.
- Wash hands, kitchen work surfaces, and utensils with soap and warm water immediately after they have been in contact with raw meat or poultry.
- Be particularly careful with foods prepared for infants, the elderly, and the immunocompromised.
- Wash hands with soap and warm water after handling reptiles, birds, or baby chicks, and after contact with pet feces.
- Avoid direct or even indirect contact between reptiles (turtles, iguanas, other lizards, snakes) and infants or immunocompromised persons.
- Don't work with raw poultry or meat, and an infant (e.g., feed, change diaper) at the same time.