

# Pertussis

Pertussis is a highly contagious, acute respiratory infection caused by the bacterium *Bordetella pertussis*. It is transmitted from person to person through contact with respiratory secretions (i.e., droplet transmission). The disease is most severe in infants and young children, many of whom suffer the intense fits of coughing that may end with an inspiratory “whoop.” Although the disease may be milder in older persons, any infected person can transmit the disease to other susceptible persons, including unimmunized or incompletely immunized infants.

Despite high childhood immunization coverage rates, pertussis remains endemic in the United States, with epidemics every three to five years. In 2012, Oregon experienced a pertussis epidemic with the most cases (910) seen in a single year since 1953. Because pertussis often goes undiagnosed in adolescents and adults, it is likely the actual number of cases greatly exceeds the number reported.

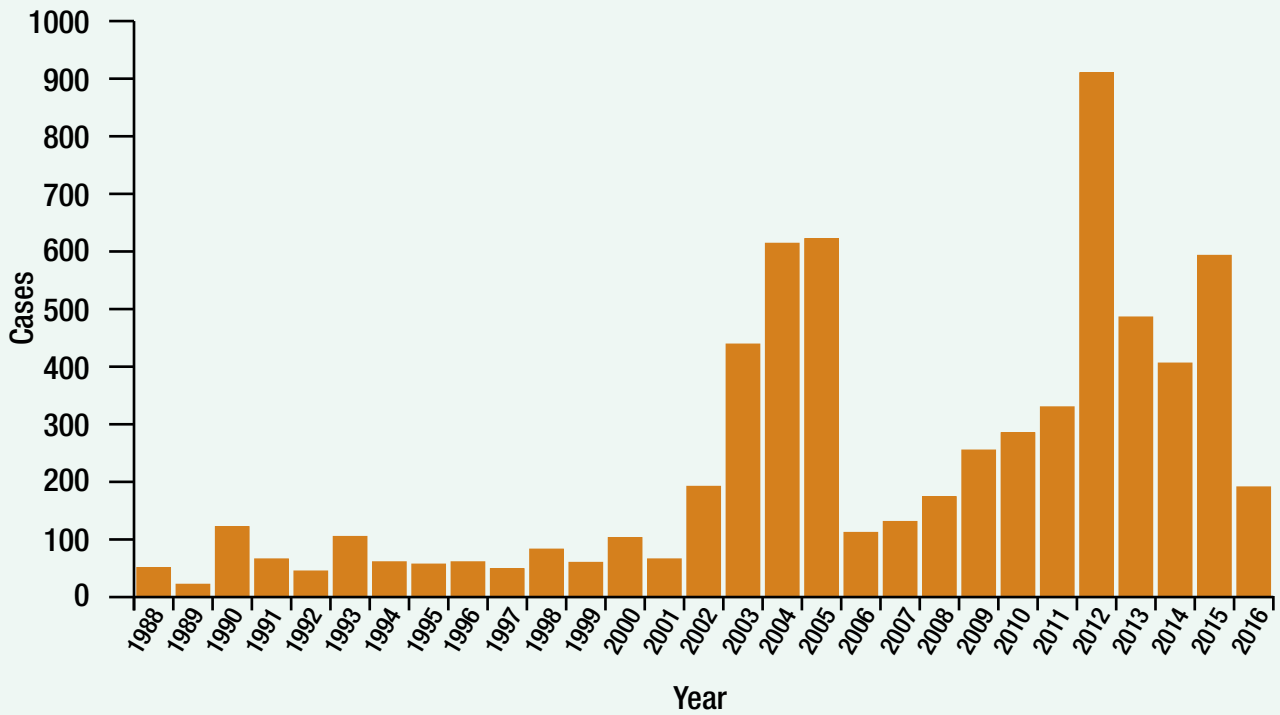
In 2016, the reported pertussis incidence in Oregon was 4.7/100,000. The incidence among infants has consistently been higher than all other age groups.

Infants with pertussis are also the most likely to suffer complications and death. Since 2003, 249 (35%) of the 707 infants diagnosed with pertussis in Oregon have been hospitalized and five have died.

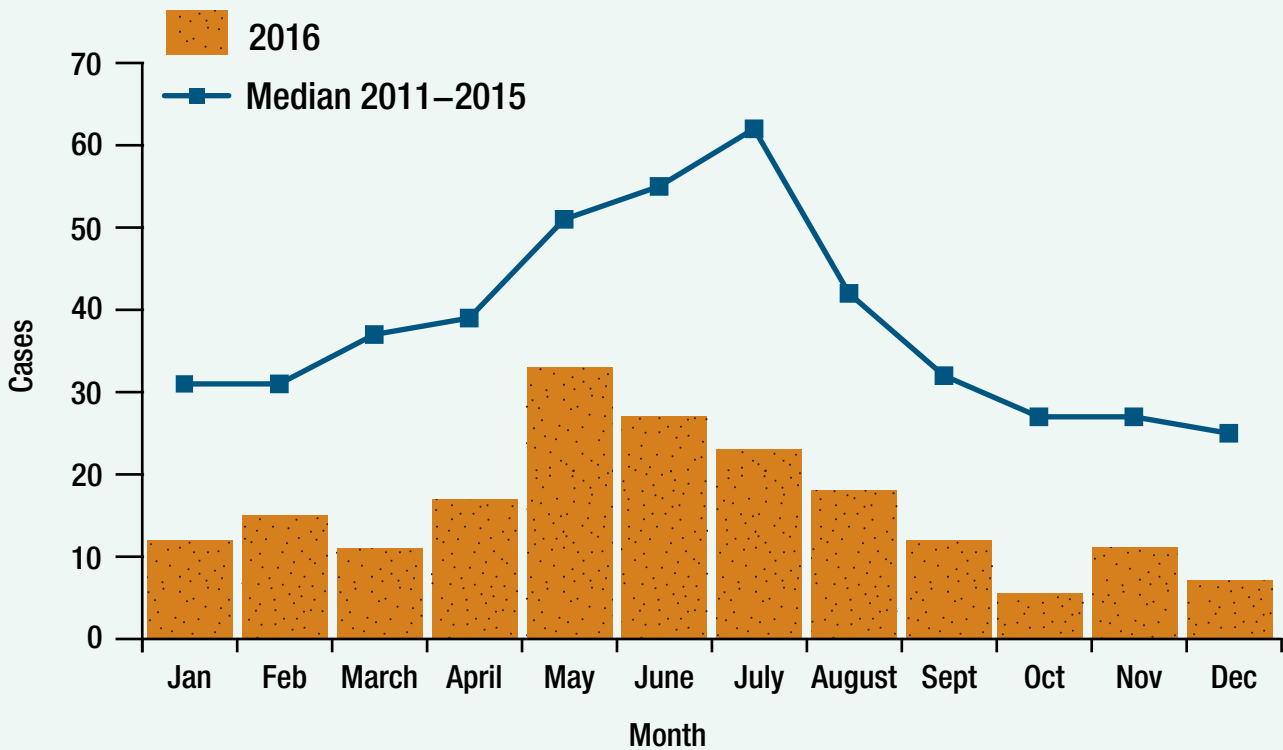
The incidence has been increasing in recent years among adolescents and adults. Since 2003, 51% of pertussis cases reported in Oregon have been in children >10 years of age. The year 2015 was also noteworthy for a historically high proportion of reported pertussis cases among older teenagers. Immunity wanes with time, so adolescents and adults need a Tdap booster dose, both to protect themselves and to avoid spreading it to vulnerable infants. All persons  $\geq 10$  years of age who have not already received Tdap are advised to get a single dose. Pregnant women should receive Tdap preferably at 27–36 weeks’ gestation, so they can develop antibodies to pertussis and pass them to their babies before birth. Vaccination of health care workers is strongly encouraged. Children need a series of five DTaP vaccinations before kindergarten, starting at two months of age.

Since 2010, with funding from the CDC, Oregon launched the Metropolitan Area Pertussis Surveillance (MAPS) project, with enhanced surveillance for pertussis in Clackamas, Multnomah and Washington counties. Each reported case is investigated extensively and standardized data are collected. These data help guide regional and national public health policy.

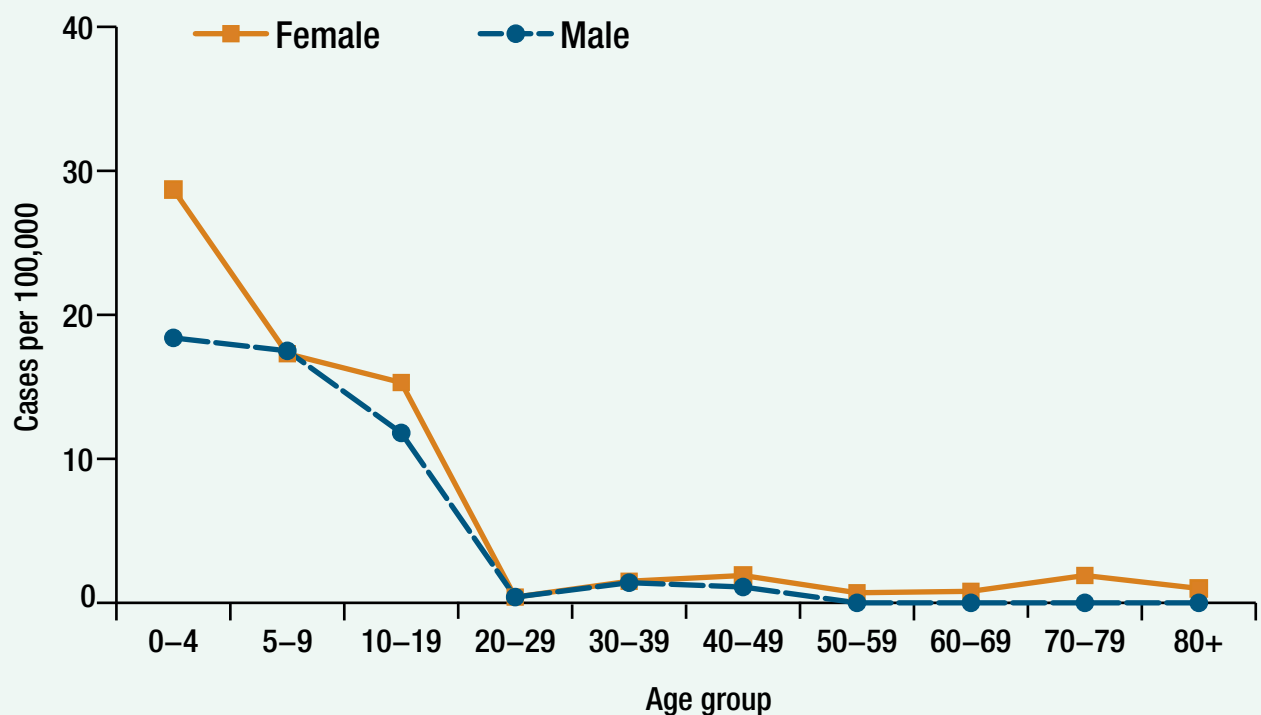
## Pertussis by year: Oregon, 1988–2016



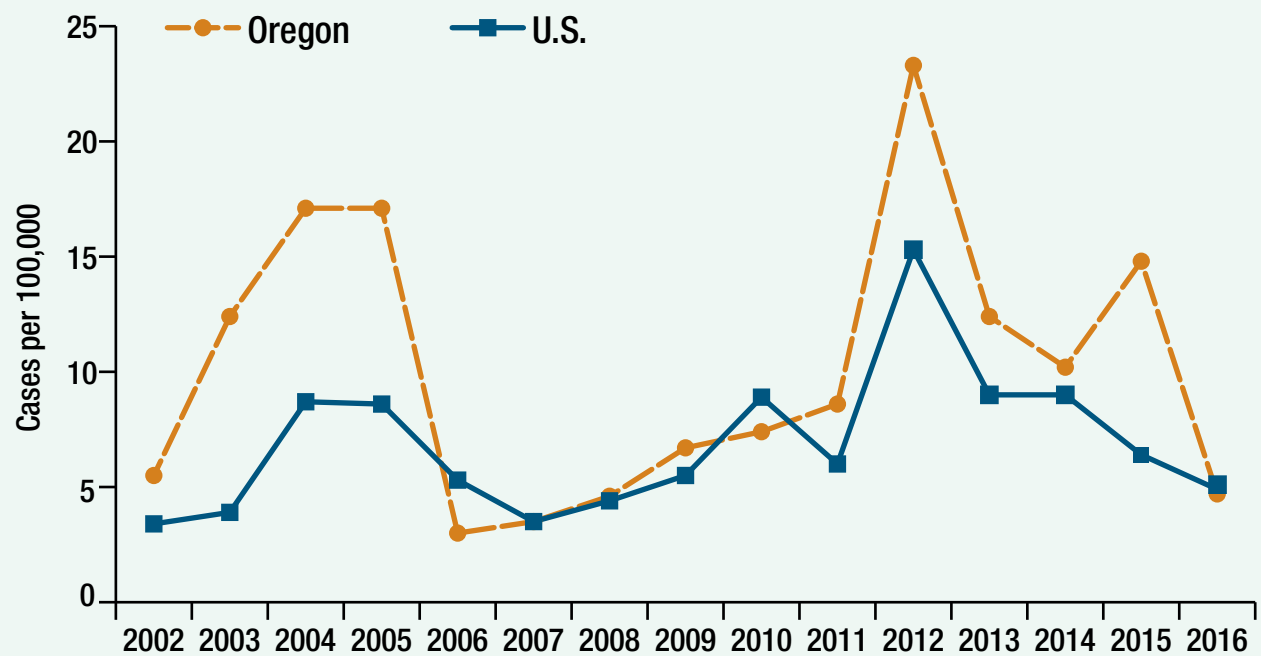
## Pertussis by onset month: Oregon, 2016



### Incidence of pertussis by age and sex: Oregon, 2016

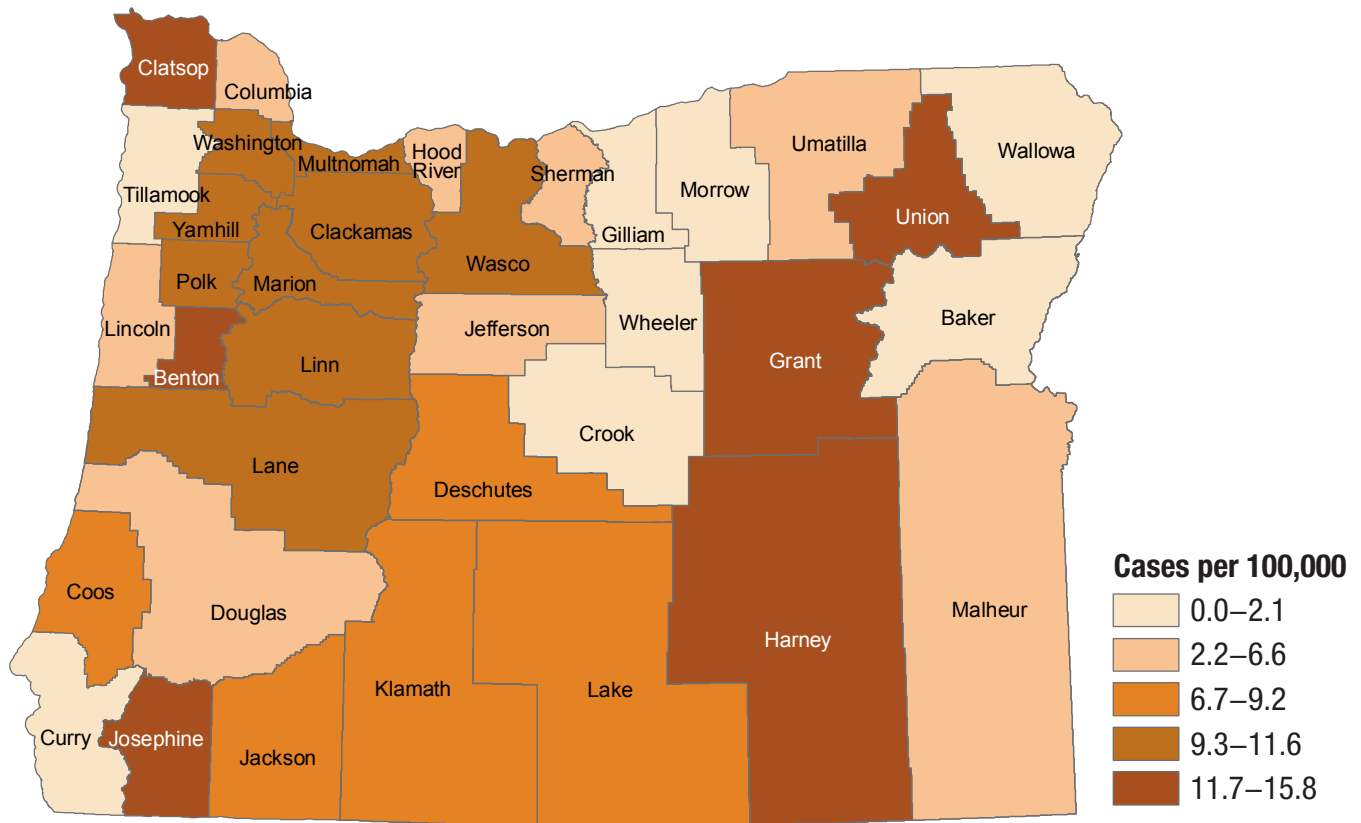


### Incidence of pertussis: Oregon vs. nationwide: 2002–2016



Oregon	5.5	12.4	17.1	17.1	3.0	3.5	4.6	6.7	7.4	8.6	23.3	12.4	10.2	14.8	4.7
U.S.	3.4	3.9	8.7	8.6	5.3	3.5	4.4	5.5	8.9	6.0	15.3	9.0	9.0	6.4	4.9

## Incidence of pertussis by county of residence: Oregon, 2007–2016



### Prevention

- Immunization is the best way to prevent pertussis.
- Cover your cough and wash your hands.
- Keep babies away from anyone who is coughing.