

## Pertussis

Pertussis is a highly contagious, acute bacterial respiratory tract 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 U.S., with epidemics every 3–5 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.

Despite the overall decrease in the number of reported pertussis cases in 2013, Klamath, Josephine, Lane and Coos counties experienced large community outbreaks during 2013.

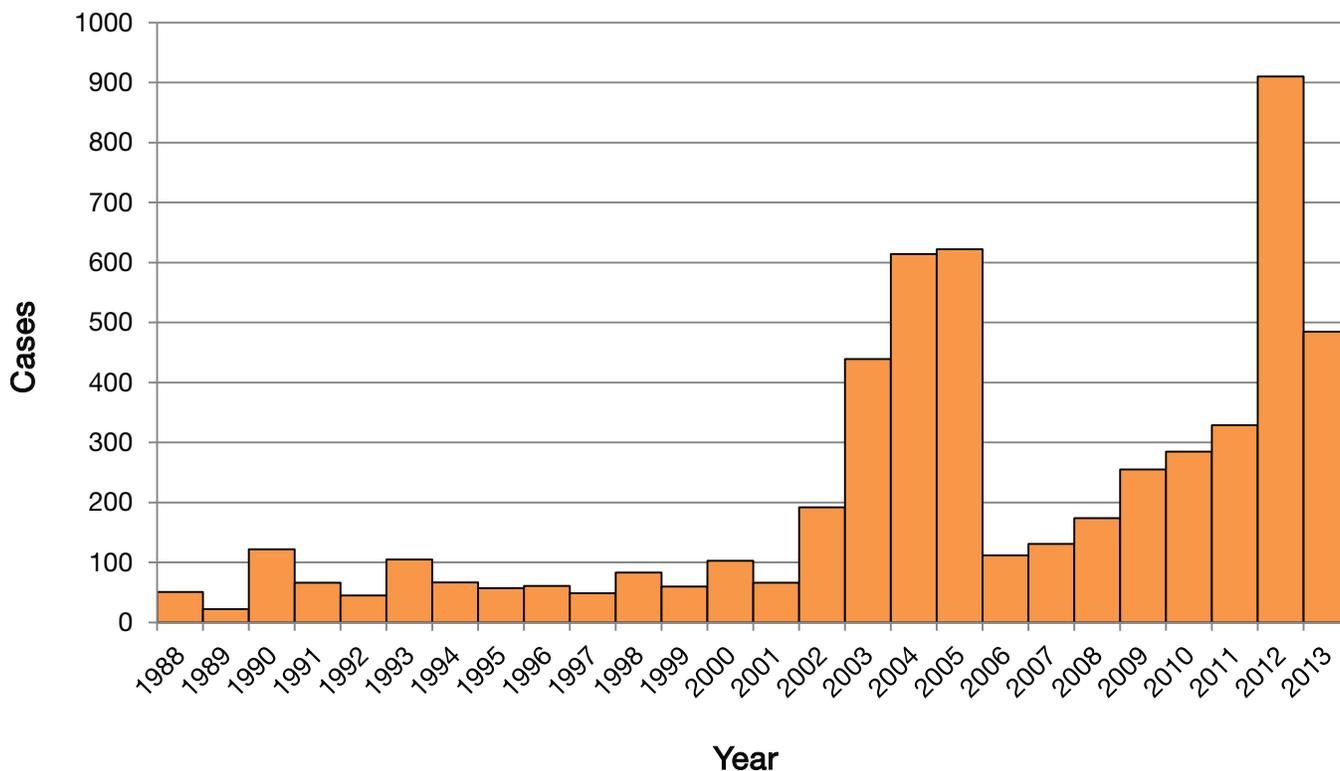
Infants with pertussis are also the most likely to suffer complications and death. Since 2003,

214 (35%) of the 609 infants diagnosed with pertussis in Oregon have been hospitalized and five have died.

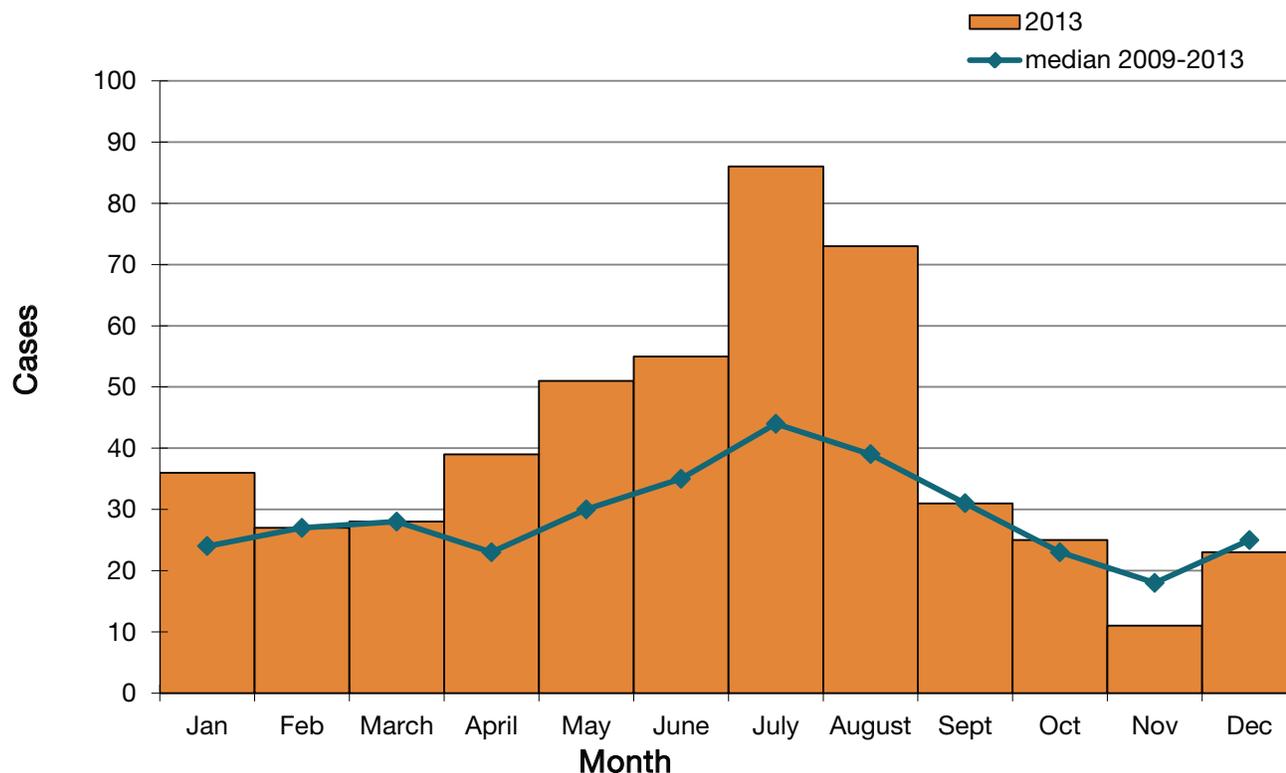
The greatest increase in incidence in recent years has been in adolescents and adults. Since 2003, 50% of pertussis cases reported in Oregon have been in children >10 years of age. Immunity wanes with time, so adolescents and adults need a Tdap booster shot, both to protect themselves and to avoid spreading it to vulnerable infants. All persons  $\geq 10$  years of age (including persons  $\geq 65$  years) who have not already received Tdap are advised to get a single dose. Pregnant women should receive Tdap preferably at 27 and 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, which enhances surveillance for pertussis in Clackamas, Multnomah and Washington counties. Each reported case is investigated extensively and standardized data are collected. These data will guide future developments in regional and national public health policy.

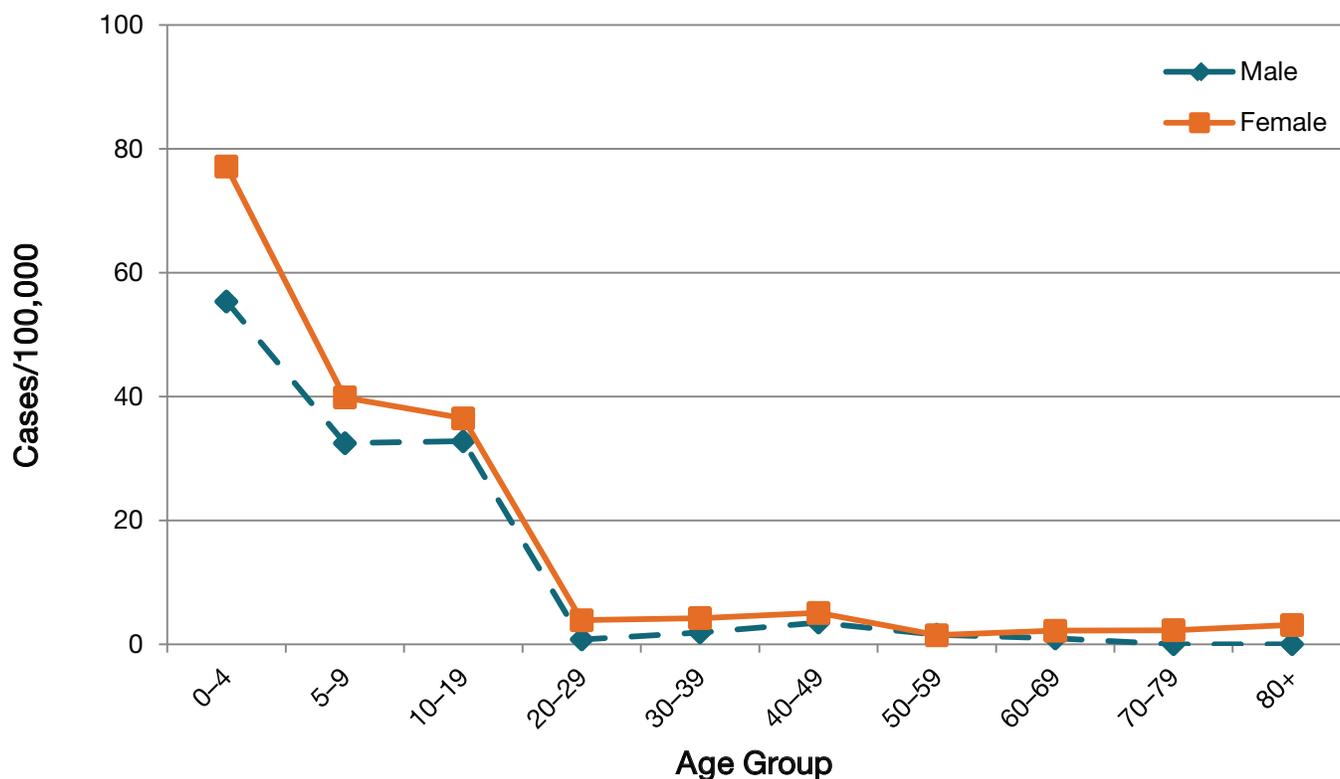
### Pertussis by year: Oregon, 1988–2013



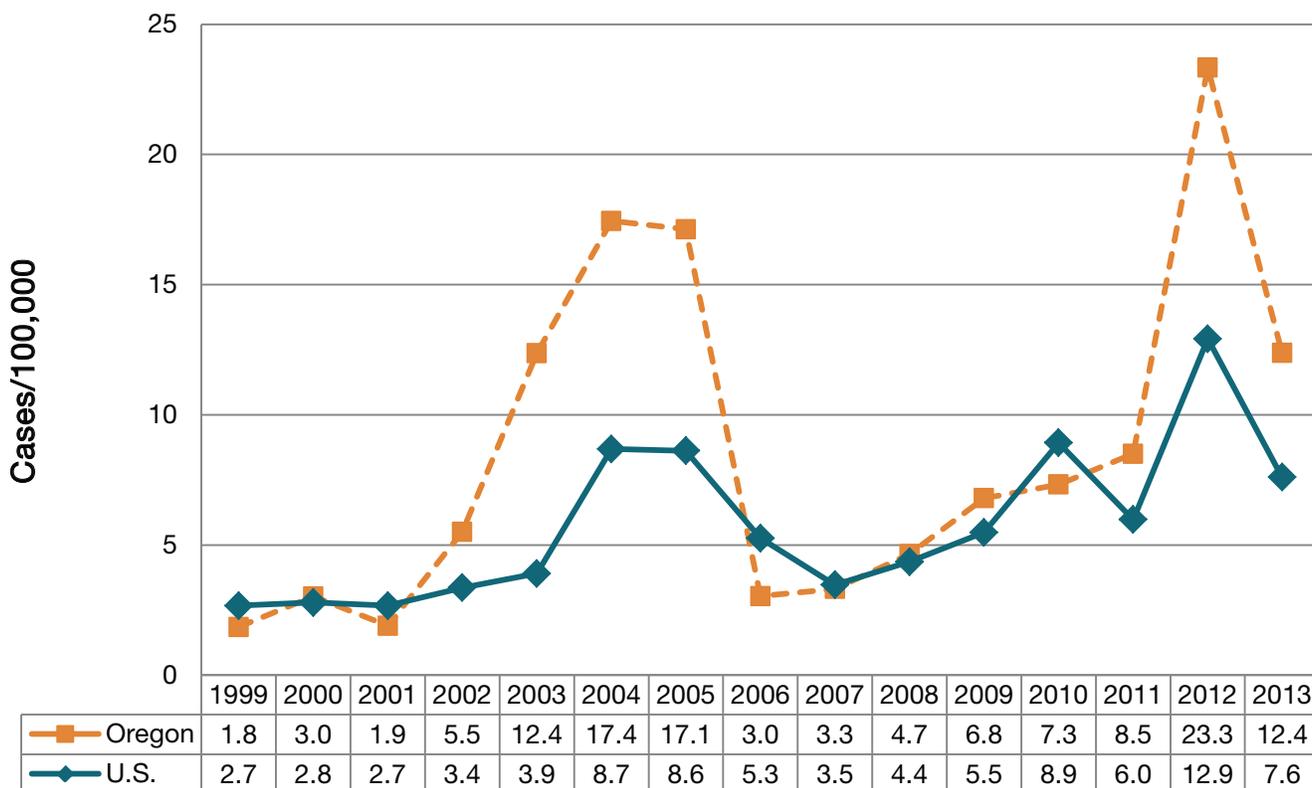
### Pertussis by onset month: Oregon, 2013



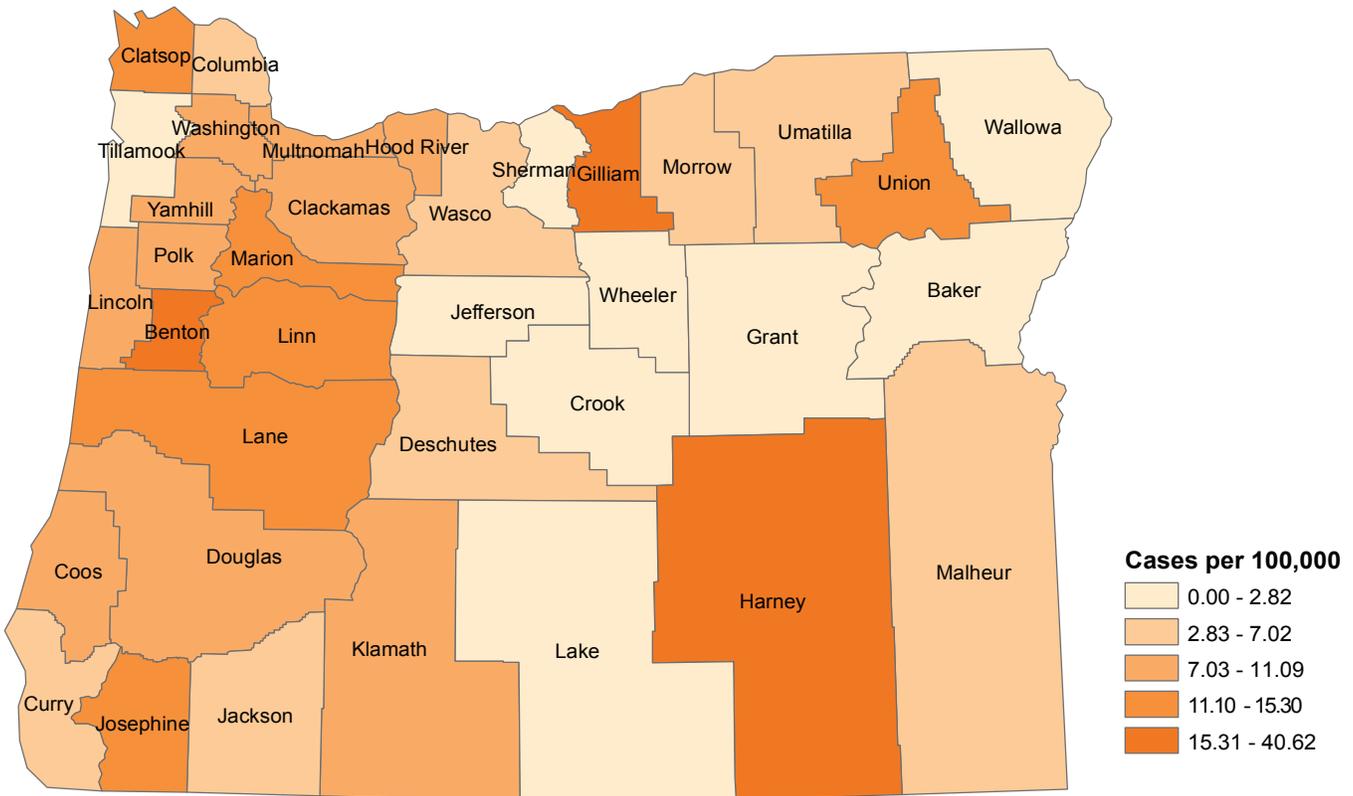
### Incidence of pertussis by age and sex: Oregon, 2013



### Incidence of pertussis: Oregon vs. nationwide, 1999–2013



### Incidence of pertussis by county of residence: Oregon, 2004–2013



#### Prevention

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