



O R E G O N

# QUARTERLY REPORT

**4th Quarter  
December 2004**

**Marion County Health Department**  
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(503) 588-5357  
[www.co.marion.or.us/mhealth](http://www.co.marion.or.us/mhealth)

To report a communicable disease:

Telephone: (503) 588-5621  
Fax: (503) 566-2920  
Evenings, Weekends  
& Holidays: (503) 731-4030

Vital Statistics Quarter Ending: Dec. 2004	4th Quarter		Year to Date	
	2004	2003	2004	2003
<b>BIRTHS</b>				
<b>TOTAL DELIVERIES</b>	1257	1261	5229	5112
Delivery in Hospital	1251	1254	5191	5071
Teen Deliveries (10-17)	52	44	222	176
<b>DEATHS</b>				
<b>TOTAL</b>	581	760	2486	2624
Medical Investigation	41	57	198	218
Homicide	02	02	09	14
Suicide	09	15	45	44
Accident – MVA	02	09	22	30
Accident – Other	14	07	46	42
Natural / Undetermined / Pending	14	24	76	88
Non-Medical Investigation (all natural)	540	703	2288	2406
Infant Deaths	02	04	19	18
Fetal Deaths	01	07	15	19
<b>COMMUNICABLE DISEASES</b>				
<b>E-Coli: 0157</b>	03	01	10	12
Hepatitis A	02	0	11	16
Acute Hepatitis B	03	03	10	20
Chronic Hepatitis B	09	19	49	49
Meningococcus	0	0	04	04
Pertussis	10	02	21	05
Tuberculosis	04	07	17	12
<b>SEXUALLY TRANSMITTED DISEASE</b>				
<b>PID (Pelvic inflammatory Disease)</b>	0	03	04	18
Chlamydia	252	198	891	752
Gonorrhea	23	29	99	98
Syphilis	02	No Data	11	No Data
AIDS	01	03	13	09
HIV Positive	06	06	22	15

## A Big Whoop De Do!—Pertussis in Marion County

By Karen Landers MD MPH, Marion County Health Officer

In case you haven't heard it yet, a major outbreak of pertussis, also known as whooping cough, is happening in Marion County. There have been 9 laboratory confirmed cases of pertussis reported in Marion County since December 1st, 2004. Cases have ranged in age from three months to 16 years with most cases occurring in the adolescent age group. This mirrors a trend in the state and nationally. In 2003, the highest number of pertussis cases in 40 years was reported in the U.S. Nearly 40% of the reported cases have been seen in the 10-19 year old population. Oregon is among the states with the highest reported number of pertussis cases. (See map)

This highly contagious illness (secondary attack rate of 80% in susceptible close contacts) is caused by the bacterium, *Bordetella pertussis*, and is characterized by episodes of severe, uncontrollable coughing fits that often lead to vomiting and in some cases can even lead to hernias or broken ribs. The coughing paroxysms are typically continuous without an intervening inhalation, followed by an inspiratory gasp or whoop which gives this disease its common name. The whoop is frequently absent in young infants. Young children have the most severe disease with 80% of deaths due to pertussis occurring in the less-than-one year old age group. Adolescents and adults may experience atypical or milder forms of illness without the whoop. Vaccination against whooping cough generally confers 80-85% immunity. Currently there is no vaccine for pertussis licensed for use in persons over the age of 7 years and immunity wanes over time resulting in a susceptible population of adolescents and adults.

### Diagnosis

Culture – *Bordetella pertussis* can be very difficult to recover. Culture requires a good posterior nasopharyngeal sample (i.e. a mouth or anterior nasal swab will not do) on a Dacron or calcium alginate swab (cotton inhibits growth of the organism) into special transport media (charcoal transport or Regan-Lowe transport media). Culture results can take up to 14 days or longer.

PCR – Although more costly than culture, polymerase chain reaction testing of a nasopharyngeal swab for pertussis offers the advantages of high sensitivity and shorter turn around times (results usually available within 5 days).

Continued

Pertussis PCR is considered valid in the presence of clinical symptoms, and is Marion County Health Department's recommended test for diagnosing pertussis. This test is available through many local laboratories including Salem Hospital Regional Lab, Oregon Medical Lab, Quest Diagnostics, PAML, and Legacy Laboratory.

**PLEASE NOTE: MARION COUNTY HEALTH DEPARTMENT DOES NOT HAVE FACILITIES FOR PERFORMING PERTUSSIS TESTING.** Clinicians needing laboratory confirmation of suspected pertussis should check with their local laboratory resources for available tests.

**Treatment**

To control the spread of pertussis, treatment of cases and close contacts (household members or other persons with direct face-to-face contact or prolonged, i.e. greater than 1 hour in close proximity) is recommended **regardless of immunization status or symptoms.** Chemoprophylaxis helps to interrupt transmission by clearing any organisms from the nasopharynx of asymptomatic contacts. It is particularly important to treat high-risk close contacts such as infants less than 1 year of age, pregnant women, persons with underlying chronic lung disease, immunocompromised individuals, and persons working in child care or health care. Treatment recommendations for cases and contacts are as follows:

<p><b>Azithromycin for 5 days</b>          Adults 500 mg po on day 1; then 250 mg po each day on days 2-5          Children (6 months and older) 10-12mg/kg/day in a single oral dose on day 1; then 5 mg/kg/day po q day on days 2-5</p>
<p><b>Erythromycin (estolate is preferred) for 14 days</b>          Adults 500 mg po four times a day          Children 40-50 mg/kg/day po in 4 divided doses; maximum of 2 grams/day (if a child is less than 6 weeks of age, inform parents of potential risk of developing infantile hypertrophic pyloric stenosis)</p>
<p><b>Trimethoprim-sulfamethoxazole (TMP-SMZ) for 14 days</b>          Adults 1 double-strength tablet po twice a day          Children (2 months of age and older) 8 mg/kg/day TMP component orally in 2 divided dose</p>
<p><b>Clarithromycin for 10 days</b>          Adults 500 mg po twice a day          Children (6 months of age and older) 15-20 mg/kg/day po in 2 divided doses; maximum 1 gram/d</p>

Children attending school or child care and any adults working in school, child care or health care settings should be excluded until they have completed at least 5 full days of antibiotic therapy.

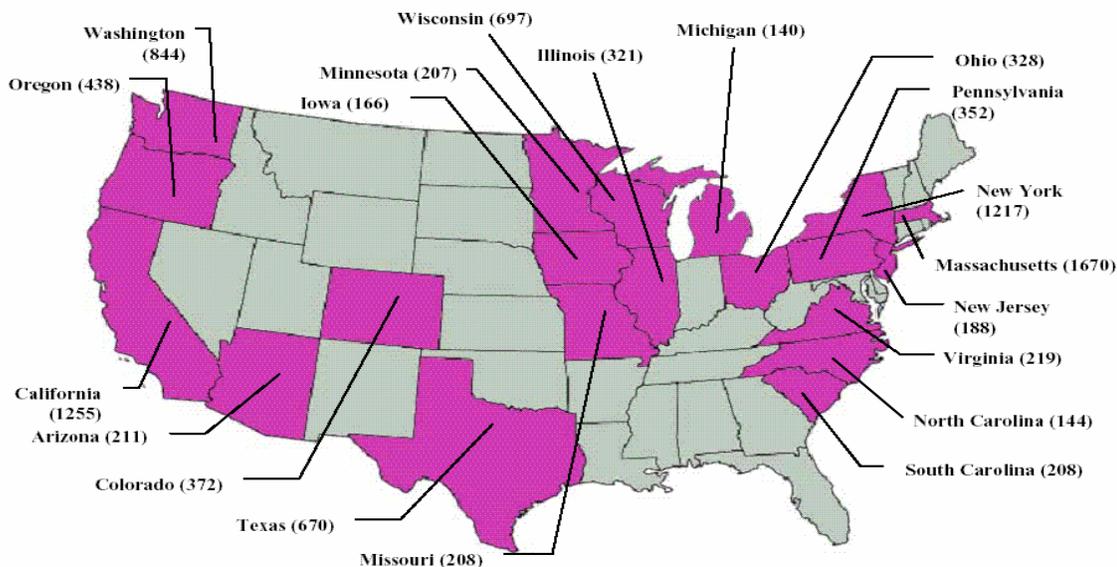
**PLEASE NOTE: MARION COUNTY HEALTH DEPARTMENT DOES NOT ROUTINELY PROVIDE TREATMENT FOR PERTUSSIS.** For questions about diagnosis and treatment of pertussis cases and close contacts call 503 588-5621. If you are calling after regular office hours or on a holiday or weekend, this number will be forwarded to an on-call person who can facilitate getting your questions answered.

**Vaccination**

It is particularly important in the setting of an outbreak to encourage vaccination against pertussis. It is worthy of note that one of the earliest cases in Marion County's current pertussis outbreak occurred in a family which had elected not to immunize the children. Parents should know that while vaccines have greatly reduced the risk of exposure to previously widespread vaccine-preventable illnesses, these diseases have not disappeared. Older children and adults whose immunity to pertussis has waned, continue to form a high-risk pool of susceptible persons who can spread the disease to others. Young, unimmunized or partially-immunized infants and children are at greatest risk of complications and death due to pertussis. Encourage parents to vaccinate their children on schedule to provide them with the best available protection against whooping cough.

New vaccines that provide booster protection against pertussis to adolescents and adults may be coming soon! On June 30, 2004, GlaxoSmithKline has applied for licensure of a pertussis booster, (in combination with tetanus and diphtheria booster, i.e., Tdap) called Boostrix for persons from 10-18 years. In August of 2004, Aventis Pasteur applied for licensure of a Tdap booster, Adacel, with an even wider age range of 11-64 years. Initial studies indicate both boosters are safe and effective. The Food and Drug Administration is expected to make its decisions sometime this year. Only by eliminating the ongoing reservoir of susceptible adolescents and adults will we truly be able to get pertussis under control.

**States with the Highest Number of Reported Pertussis Cases (2003)**



\* Centers for Disease Control and Prevention. "Pertussis Surveillance Report - 8/6/04." August 2004.