Pertussis Report

December 15, 2010

- **New in this report:** Disease activity is slowing statewide, however relatively high numbers of cases continue to be reported each week

- **7,824** confirmed, probable and suspect cases of pertussis with onset from January 1 through December 15, 2010 reported to CDPH for a state rate of **20.0 cases/100,000.**
  - 527 new cases have been reported to CDPH since November 30 (Figure 1).
  - Case Classification:
    - Confirmed: ~62%
    - Probable: ~19%
    - Suspect: ~19%

- This is the most cases reported in 63 years when 9,394 cases were reported in 1947, a peak year, and the highest incidence in 52 years when a rate of 26.0 cases/100,000 was reported in 1958. Previously, the peak was in 2005 when there were 3,182 cases reported (Figure 2).

- Of the 38% of cases with known hospitalization information, 314 (11%) cases have been hospitalized
  - 180 (57%) of hospitalized cases were infants <3 months of age and 234 (75%) were infants <6 months of age.
  - 178 (79%) of the hospitalized infants <6 months of age with known race and ethnicity were Hispanic.

- Ten deaths have been reported; 9 (90%) were Hispanic infants. Nine fatalities were infants <2 months of age at time of disease onset and had not received any doses of pertussis-containing vaccine and the remainder was an ex-28 week preemie that was 2 months of age and had received the first dose of DTaP only 15 days prior to disease onset. The majority of infant cases in 2010 have occurred in infants <3 months of age (Figure 3).

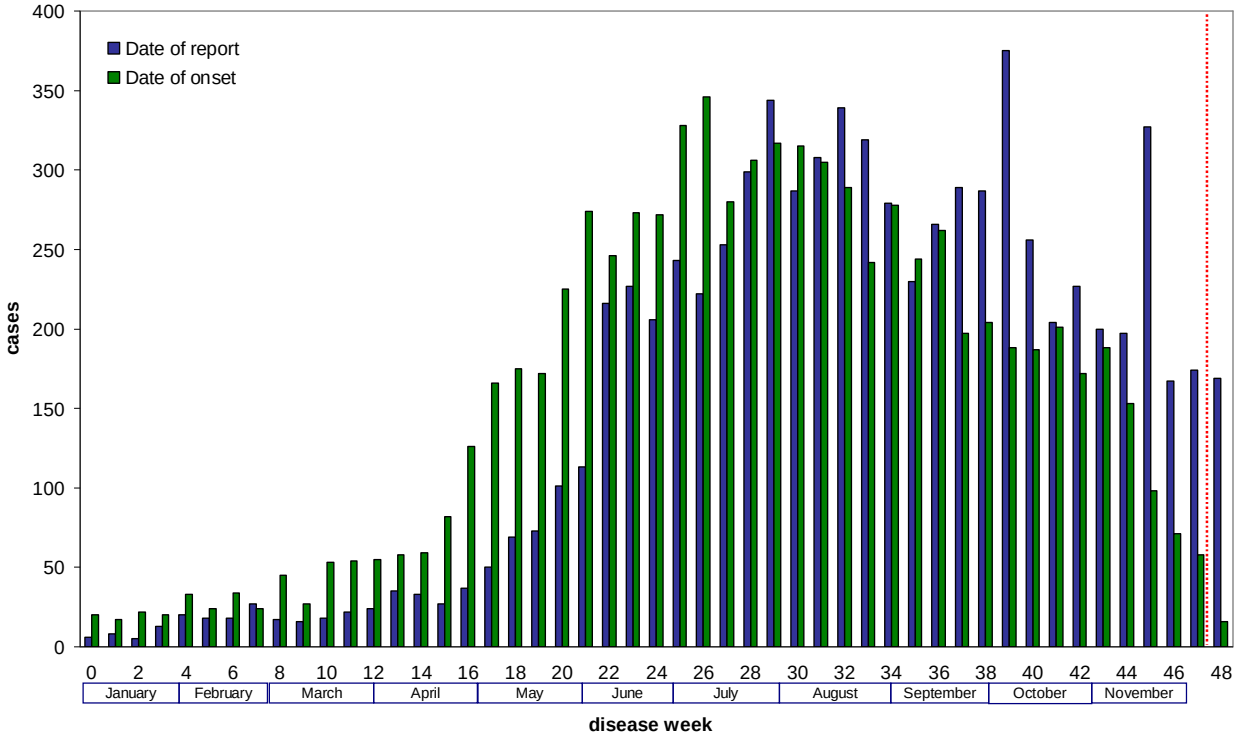
- The case-fatality rate among infants <3 months of age is 1.5%.

- Rates are highest in infants <6 months of age (385.4 cases/100,000), in children aged 6 months to 6 years (50.1 cases/100,000), 7-9 years (57.9 cases/100,000) and adolescents aged 10-18 years (42.1 cases/100,000) (Figure 4). The majority of adolescent cases are in 10-11 year-olds.

- Overall rates by race/ethnicity are highest in Hispanics (20.7/100,000) and whites (16.9/100,000), however age-specific rates indicate that the highest rates are seen in Hispanic infants <6 months of age (480.0/100,000) (Figures 3 and 4).

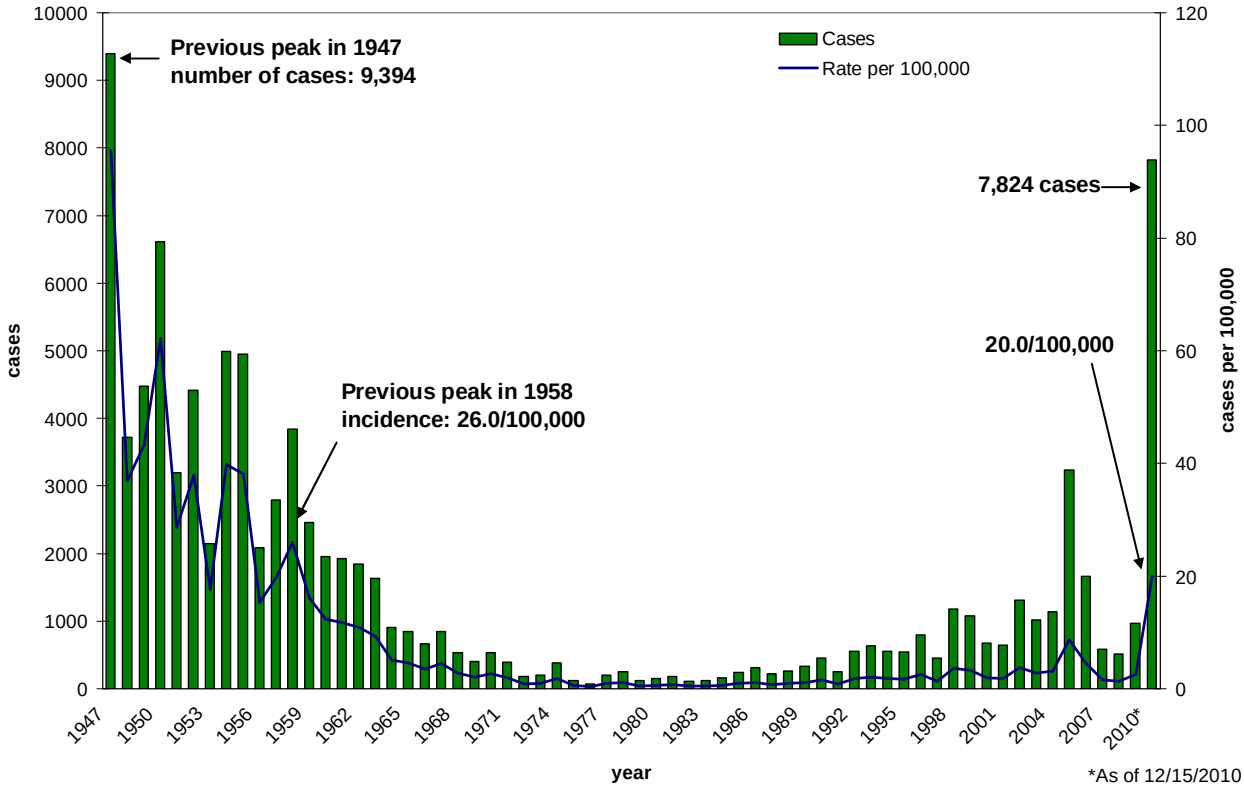
- The median case rate by county is 15.6 cases per 100,000 (range 0-140) (Figure 5 and Table 1).

Figure 1. Epidemic curve of pertussis cases* by weeks of report and onset -- California, January 1 through December 15, 2010



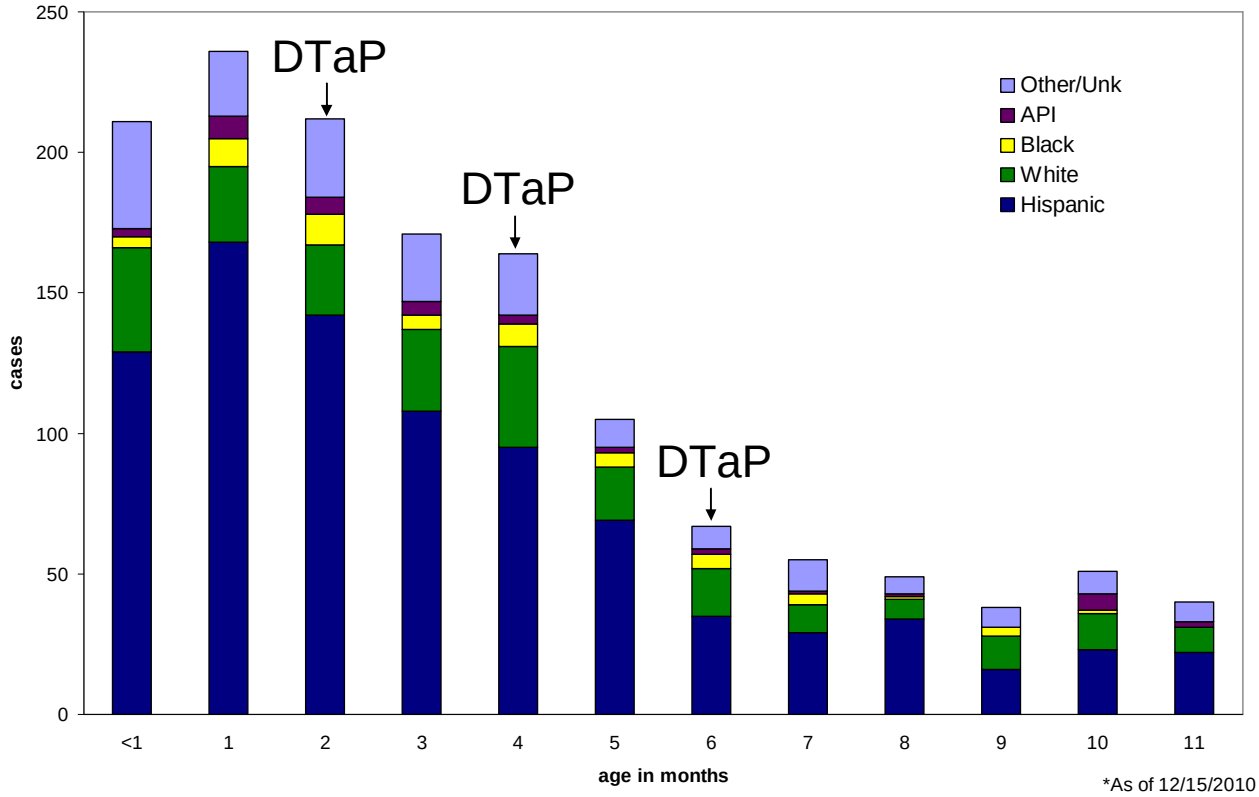
*Includes cases residing in Los Angeles County that were reported to the county public health department through week 47

Figure 2. Number of reported pertussis cases by year of onset -- California 1947-2010*



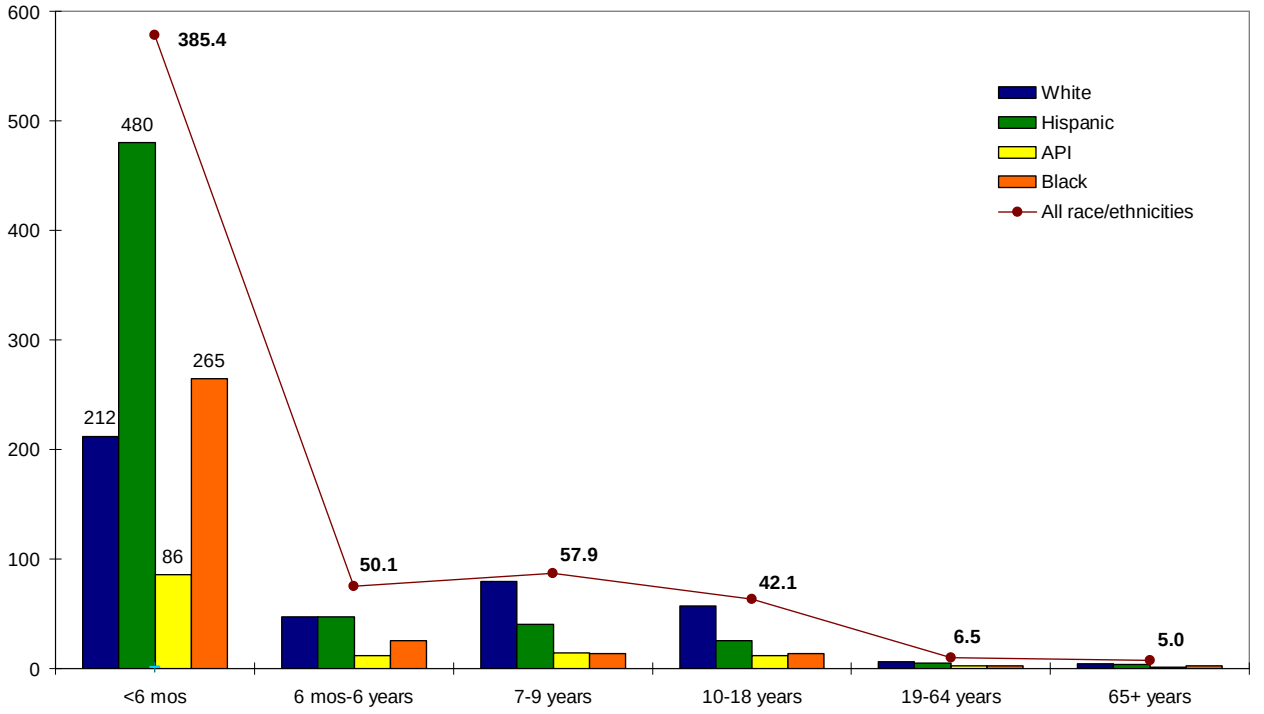
*As of 12/15/2010

Figure 3. Infant pertussis cases by age in months -- California, 2010*



*As of 12/15/2010

Figure 4. Incidence of pertussis cases* by race/ethnicity and age -- California, 2010



*As of 12/15/2010

Figure 5. Pertussis rates by county – California, January 1 – November 30, 2010

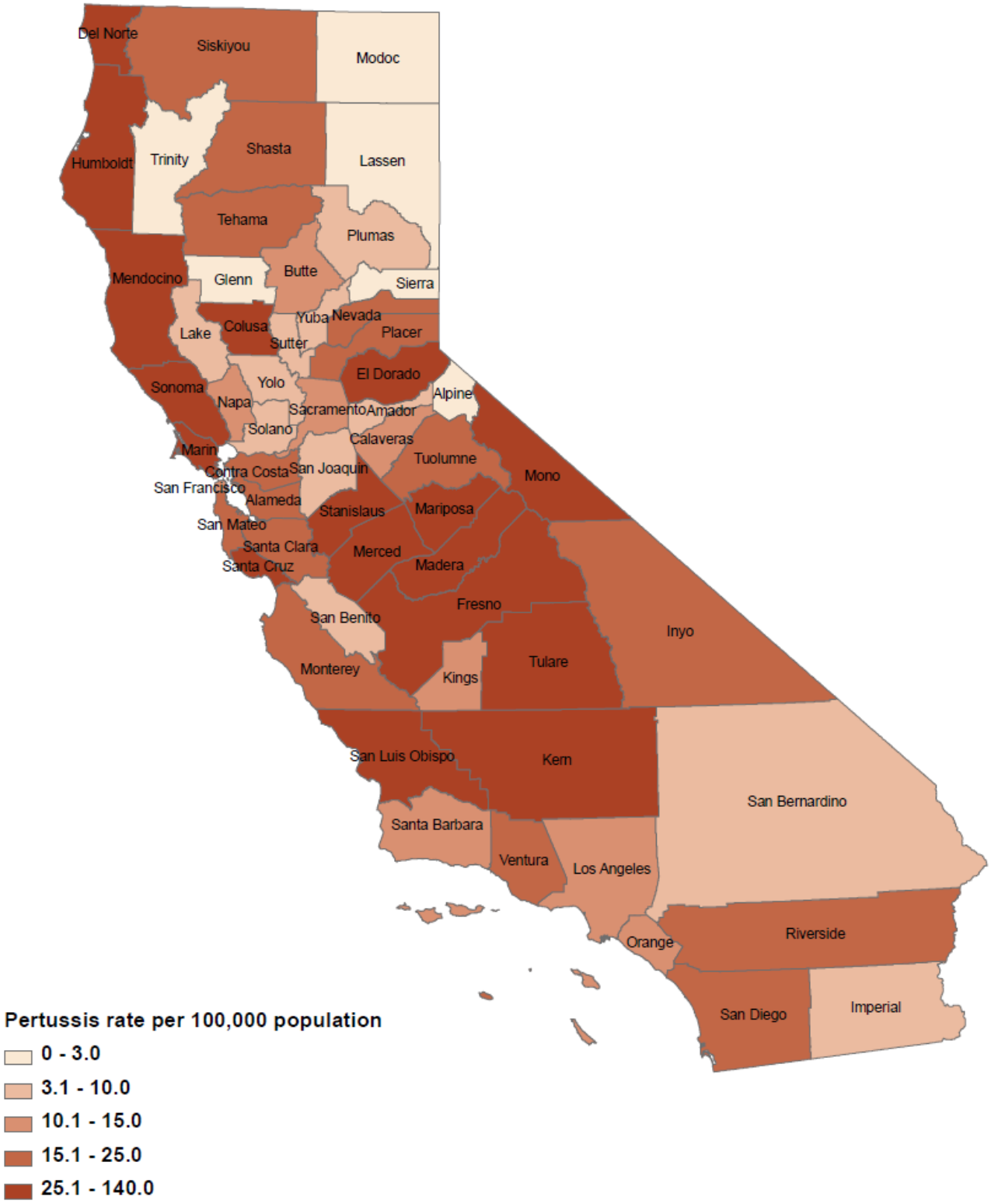


Table 1. Pertussis cases with onset from January 1 through December 15, 2010 reported to CDPH by local health jurisdiction -- California, 2010

	2010	
	Cases	Rate
CALIFORNIA	**7824**	**19.99**
ALAMEDA	382	26.65
City of Berkeley*	16	14.93
ALPINE	0	0.00
AMADOR	3	7.53
BUTTE	32	14.11
CALAVERAS	7	14.83
COLUSA	11	47.20
CONTRA COSTA	188	17.66
DEL NORTE	16	52.23
EL DORADO	52	27.91
FRESNO	535	55.45
GLENN	0	0.00
HUMBOLDT	58	43.28
IMPERIAL	10	5.41
INYO	6	31.43
KERN	346	40.55
KINGS	22	13.66
LAKE	4	5.99
LASSEN	0	0.00
LOS ANGELES**	1253	12.78
City of Long Beach*	73	14.82
City of Pasadena*	17	11.32
MADERA	122	77.09
MARIN	346	136.48
MARIPOSA	10	52.81
MENDOCINO	31	33.53
MERCED	122	45.57
MODOC	0	0.00
MONO	12	82.25
MONTEREY	67	15.57
NAPA	20	14.20
NEVADA	28	27.50
ORANGE	447	14.01
PLACER	58	17.02
PLUMAS	2	9.20
RIVERSIDE	410	18.82
SACRAMENTO	166	11.55
SAN BENITO	6	9.61
SAN BERNARDINO	120	5.62
SAN DIEGO	717	22.62
SAN FRANCISCO	126	15.47
SAN JOAQUIN	71	9.81
SAN LUIS OBISPO	374	139.57
SAN MATEO	169	23.02
SANTA BARBARA	62	14.39
SANTA CLARA	388	21.27
SANTA CRUZ	78	29.24
SHASTA	28	14.81
SIERRA	0	0.00
SISKIYOU	11	23.48
SOLANO	20	4.58
SONOMA	230	46.80
STANISLAUS	147	26.76
SUTTER	6	6.00
TEHAMA	12	18.57
TRINITY	0	0.00
TULARE	163	35.70
TUOLUMNE	22	37.65
VENTURA	179	21.14
YOLO	18	8.88
YUBA	5	6.37

*City health jurisdictions not included in county total

**Includes cases reported to LAC DPH as of 12/3/2010