



# Pertussis Report

June 15, 2011

- **New in this report:** Disease activity in 2011 is still at relatively increased levels throughout the state.
- **2011: 1,428 cases with onset in 2011** have been reported to CDPH. The state rate per observed person-days is **7.8 cases/100,000**.
  - Disease activity levels remain high; the number of cases occurring in the early months of 2011 was the same as the number reported during the peak months of 2005 (Figure 1).
  - 87 (8%) cases have been hospitalized (of 78% with complete data).
    - Most (67%) were infants  $\leq 2$  months of age.
  - No deaths have been reported.
  - Cases have been reported from 48 (79%) of 61 local health jurisdictions.
  - 326 new cases have been reported since the last update on 5/16/2011.
- **2010: 9,120 cases with onset in 2010** have been reported to CDPH for a state rate of **23.3 cases/100,000**.
  - 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).
  - 804 (9%) cases were hospitalized
    - 442 (55%) of hospitalized cases were infants <3 months of age and 581 (72%) were infants <6 months of age.
    - 414 (76%) of the hospitalized infants <6 months of age with known race and ethnicity were Hispanic.
  - Ten deaths were 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 1.3%.
  - Case Classification:
    - Confirmed: 59%
    - Probable: 19%
    - Suspect: 22%
  - The median case rate by county is 17.5 cases per 100,000 (range 0-139) (Table 1).
  - Rates are highest in infants <6 months of age (435.0 cases/100,000), in children aged 6 months to 6 years (61.8 cases/100,000), 7-9 years (67.3 cases/100,000)

and adolescents aged 10-18 years (49.0 cases/100,000) (Figure 4). The majority of adolescent cases are in 10-11 year-olds (Figure 5).

- Overall rates by race/ethnicity are highest in Hispanics (26.5/100,000) and whites (20.9/100,000), however age-specific rates indicate that the highest rates are seen in Hispanic infants <6 months of age (574.9/100,000) (Figures 3 and 4).

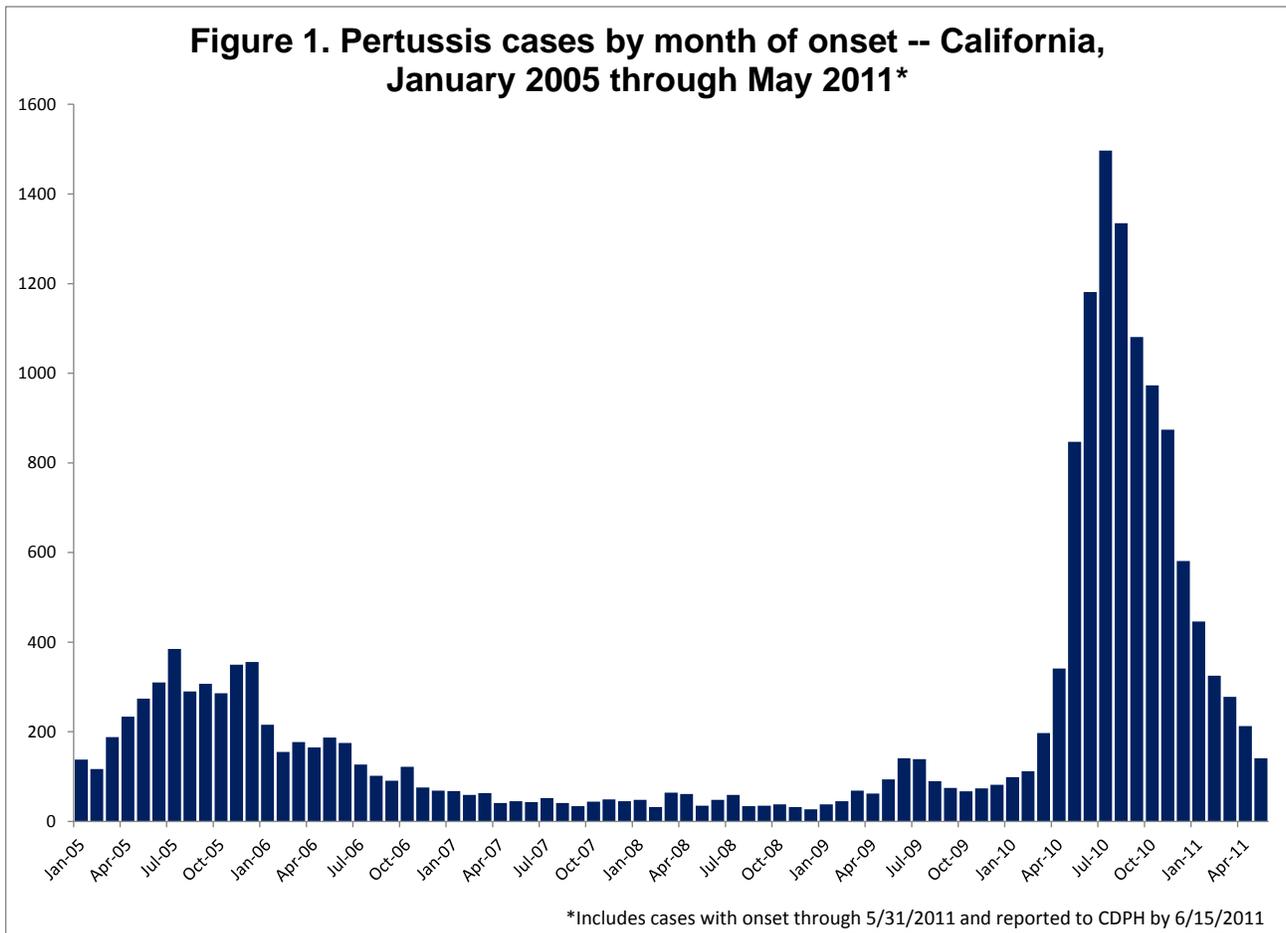


Figure 2. Number of reported pertussis cases by year of onset -- California, 1947-2011\*

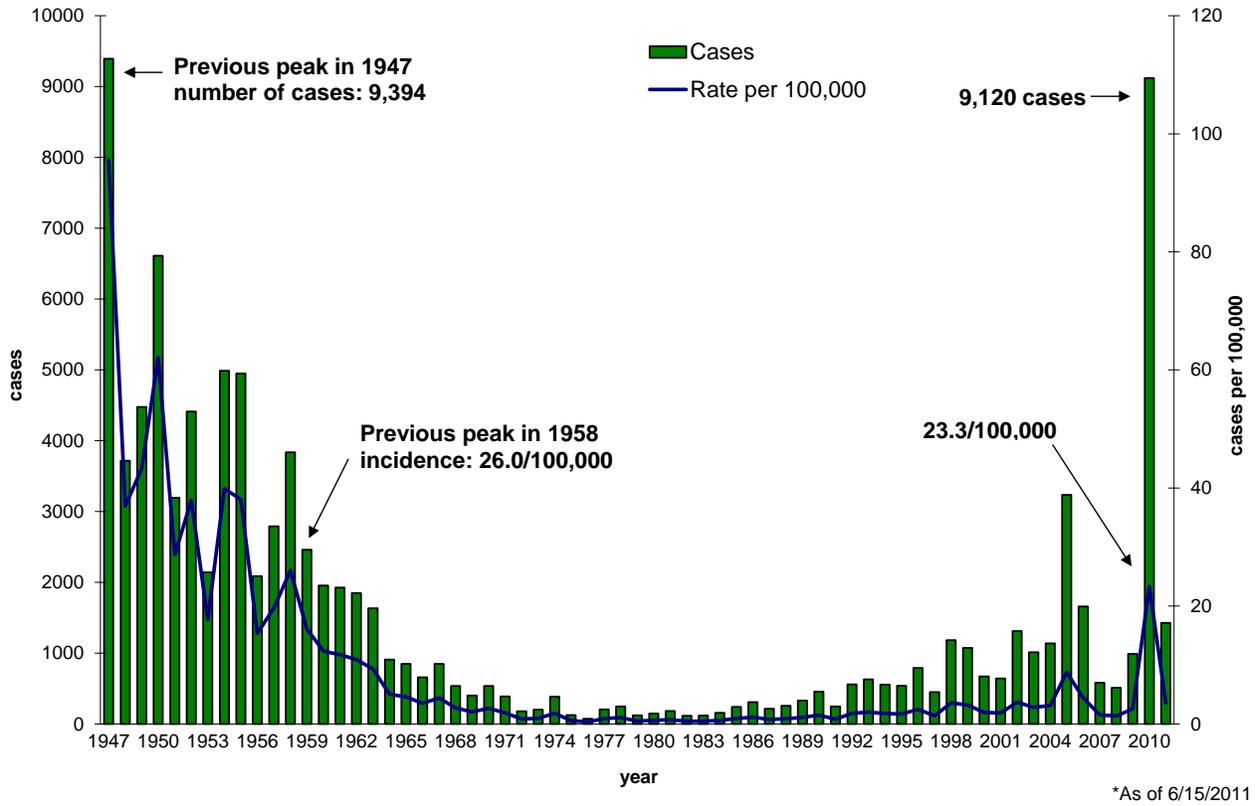
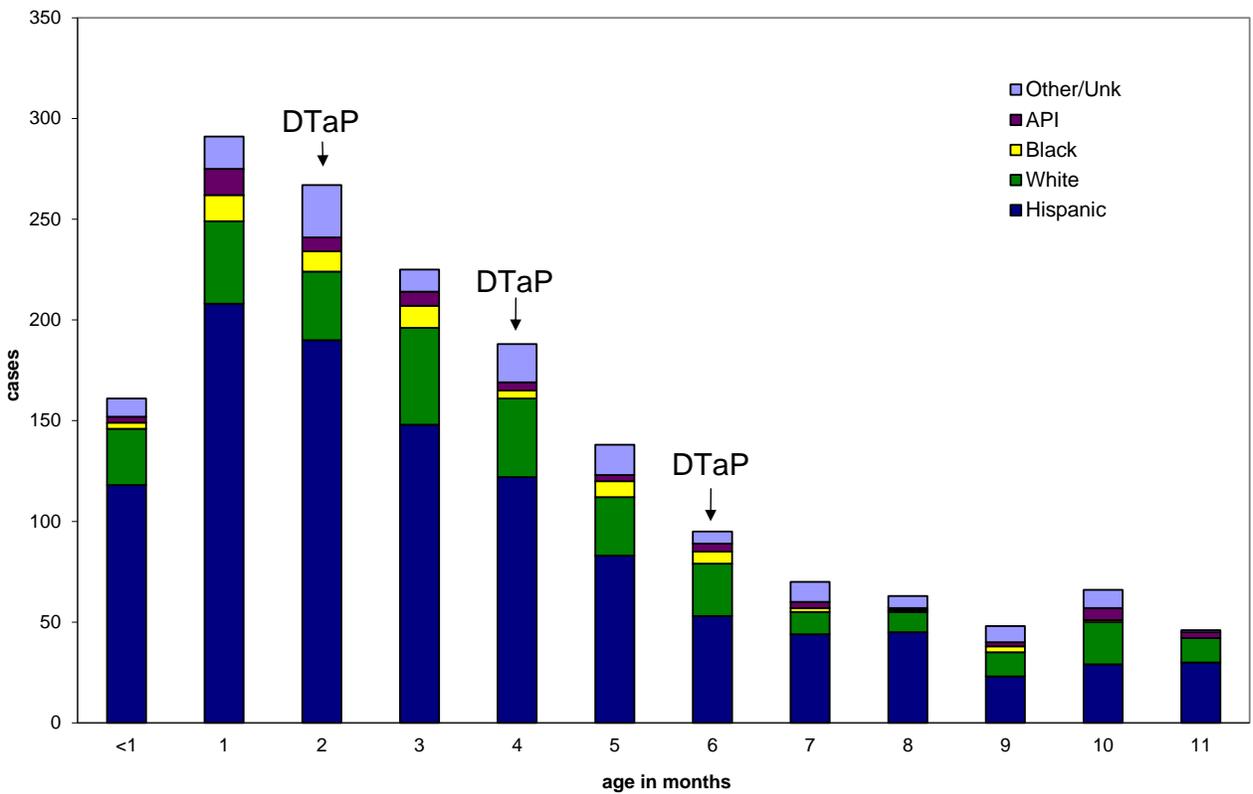
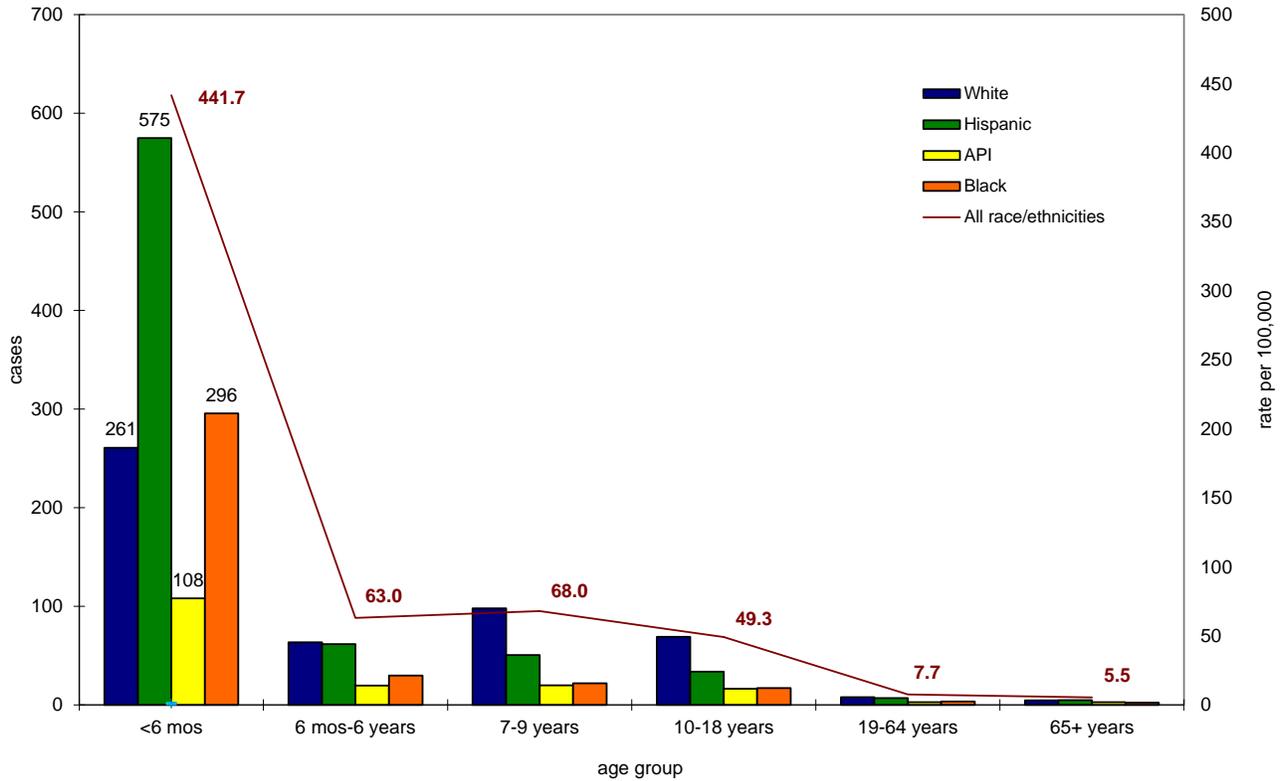


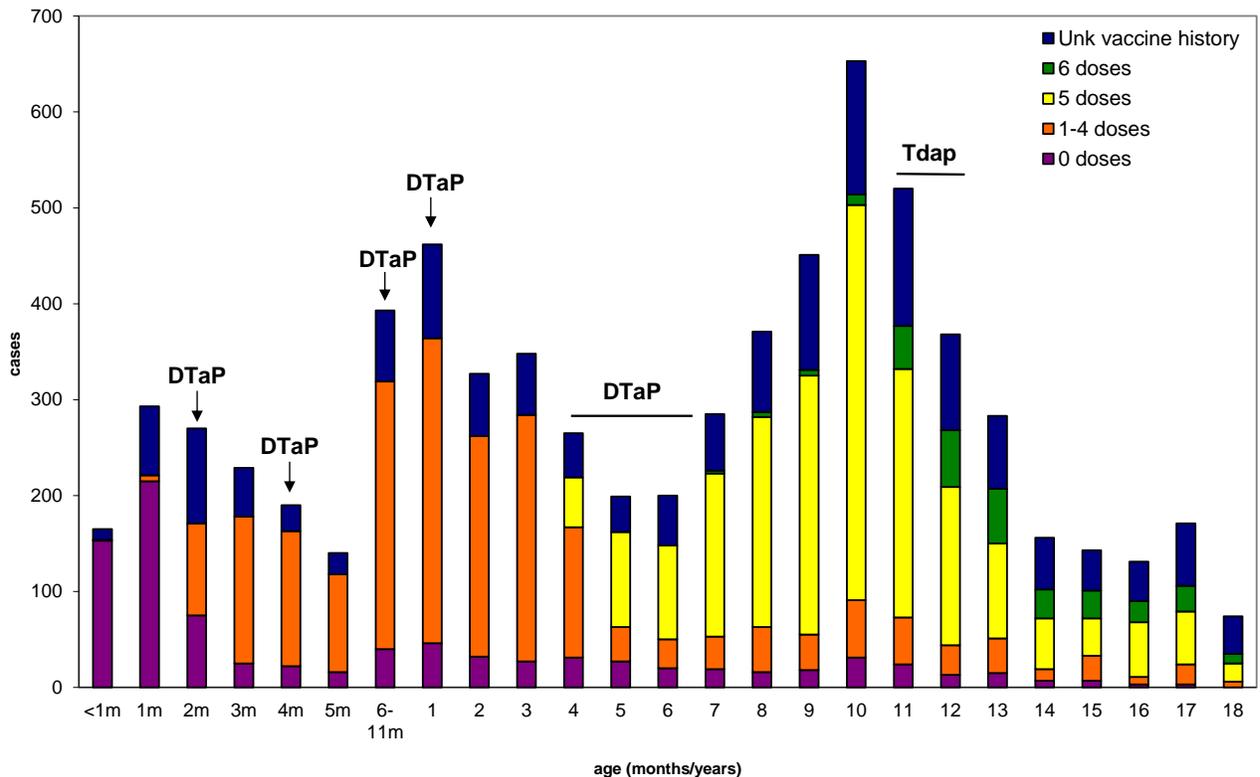
Figure 3. Infant pertussis cases by age in months -- California, 2010



**Figure 4. Pertussis cases by age and race/ethnicity -- California, 2010**



**Figure 5. Pertussis cases in children and adolescents aged 0-18 years, by vaccine history -- California, 2010**



**Figure 6. Pertussis rates by county – California, January 1, 2010 – December 31, 2010  
(updated 05/16/2011)**

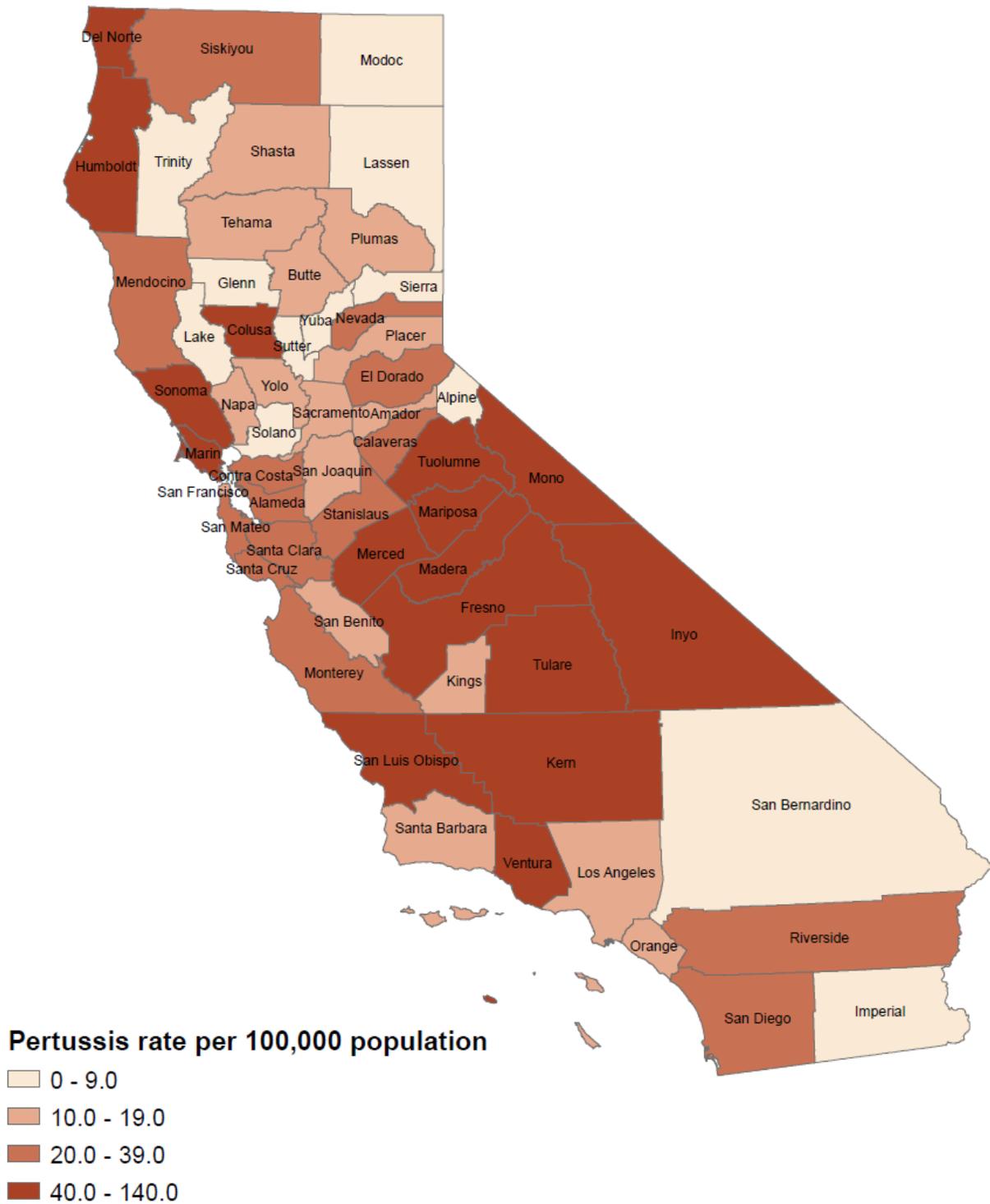
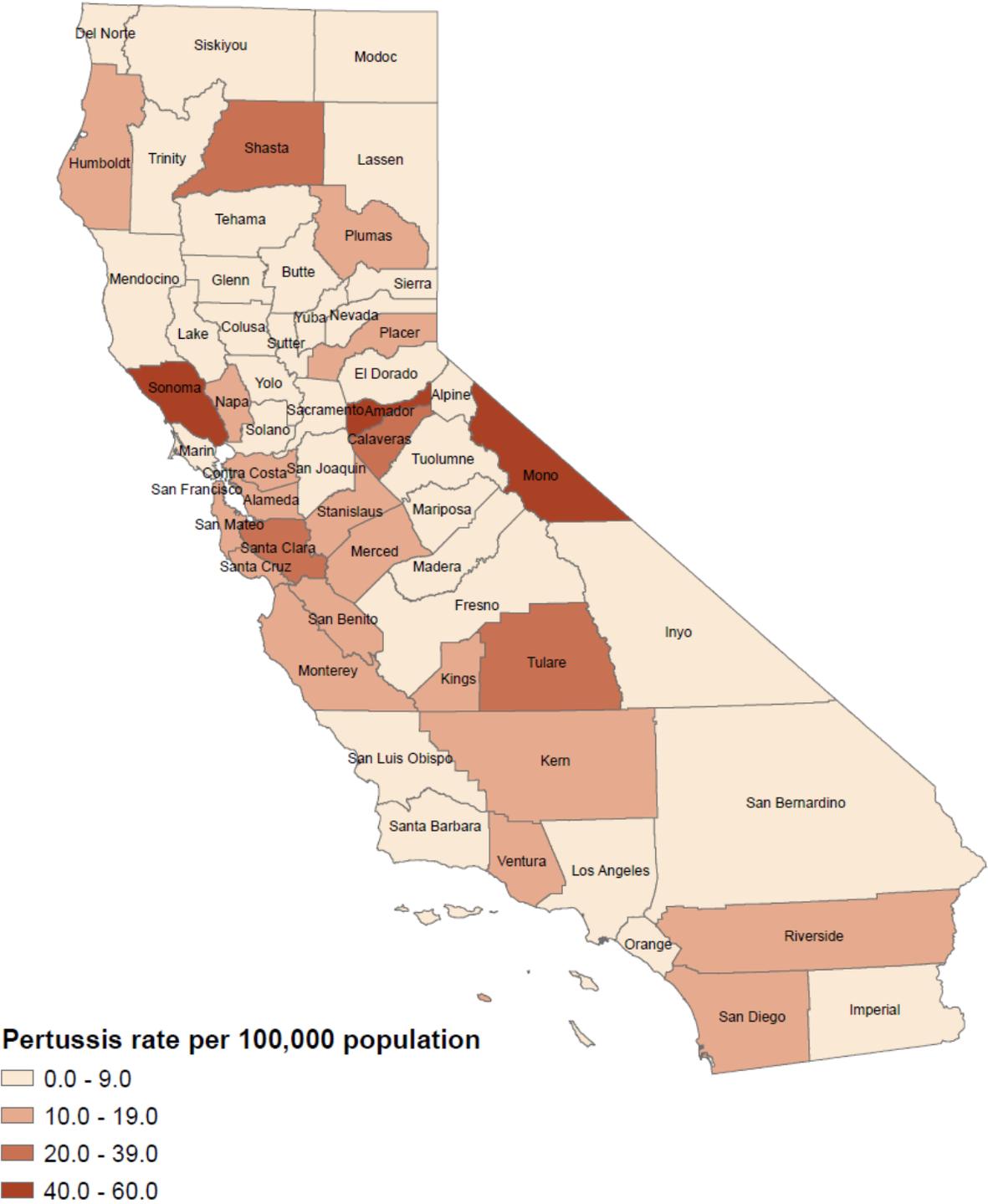


Figure 7. Pertussis rates (person days) by county – California, January 1, 2011 – June 15, 2011



**Table 1. Pertussis cases reported to CDPH by local health jurisdiction -- California, 2010-2011**

	2010		2011*	
	Cases	Rate	Cases	Rate**
<b>CALIFORNIA</b>	<b>9120</b>	<b>23.30</b>	<b>1428</b>	<b>7.81</b>
ALAMEDA	422	29.25	102	15.19
City of Berkeley†	12	11.20	4	8.09
ALPINE	0	0.00	0	0.00
AMADOR	4	9.92	9	47.48
BUTTE	32	13.91	5	4.61
CALAVERAS	9	18.85	4	17.83
COLUSA	11	46.24	0	0.00
CONTRA COSTA	206	19.15	74	14.70
DEL NORTE	16	51.64	0	0.00
EL DORADO	55	29.05	4	4.50
FRESNO	555	56.43	35	7.55
GLENN	1	3.24	1	6.87
HUMBOLDT	59	43.77	8	12.78
IMPERIAL	9	4.74	2	2.23
INYO	8	41.70	0	0.00
KERN	375	43.02	39	9.47
KINGS	26	15.80	7	9.00
LAKE	5	7.40	0	0.00
LASSEN	1	2.64	0	0.00
LOS ANGELES	1302	13.19	100	2.18
City of Long Beach†	69	14.00	4	1.76
City of Pasadena†	21	13.98	1	1.44
MADERA	120	74.02	4	5.18
MARIN	348	137.18	9	7.68
MARIPOSA	10	52.33	0	0.00
MENDOCINO	27	28.98	2	4.61
MERCED	132	48.19	20	15.42
MODOC	0	0.00	0	0.00
MONO	19	128.09	2	28.64
MONTEREY	118	27.23	22	10.90
NAPA	25	17.51	8	11.97
NEVADA	23	22.41	2	4.17
ORANGE	501	15.52	58	3.86
PLACER	50	14.39	15	9.16
PLUMAS	2	9.16	1	9.88
RIVERSIDE	469	20.95	104	9.79
SACRAMENTO	188	12.95	36	5.31
SAN BENITO	7	10.90	3	9.85
SAN BERNARDINO	181	8.31	45	4.40
SAN DIEGO	1146	35.82	214	14.33
SAN FRANCISCO	143	17.48	34	8.96
SAN JOAQUIN	85	11.46	9	2.56
SAN LUIS OBISPO	375	139.03	9	7.17
SAN MATEO	189	25.66	39	11.43
SANTA BARBARA	64	14.73	11	5.45
SANTA CLARA	473	25.74	157	18.36
SANTA CRUZ	87	32.46	10	8.03
SHASTA	32	16.69	17	18.90
SIERRA	0	0.00	0	0.00
SISKIYOU	10	21.23	0	0.00
SOLANO	37	8.39	2	0.97
SONOMA	246	49.66	77	33.38
STANISLAUS	164	29.30	24	9.08
SUTTER	5	4.89	1	2.04
TEHAMA	10	15.25	2	6.48
TRINITY	0	0.00	0	0.00
TULARE	233	49.90	45	20.34
TUOLUMNE	32	54.49	0	0.00
VENTURA	346	40.43	41	10.26
YOLO	20	9.70	4	4.13
YUBA	5	6.22	0	0.00

\*Data are preliminary and include cases reported to CDPH as of 6/15/2011

\*\*Rate calculated using observed person-days

†City health jurisdictions not included in county total