



Pertussis Report

July 12, 2011

- **New in this report:** Disease activity in 2011 is still at relatively increased levels throughout the state.
- **2011: 1,918 cases with onset in 2011** have been reported to CDPH. The state rate per observed person-days is **9.1 cases/100,000**.
 - Disease activity levels remain high; the number of cases occurring in the early months of 2011 was higher than the number reported during the peak months of 2005 (Figures 1 and 2).
 - The number of cases reported with onset in the first two quarters of 2011 is less than what was observed during the same time period in 2010, however due to reporting delays we expect additional cases to be reported for 2011 (Figure 1).
 - 109 (8.6%) cases have been hospitalized (of 66% with complete data).
 - Most (76; 70%) were infants ≤ 2 months of age.
 - No deaths have been reported.
 - Cases have been reported from 49 (80%) of 61 local health jurisdictions.
 - 490 new cases have been reported since the last update on 6/15/2011.
- **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 3).
 - 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 4).
 - The case-fatality rate among infants <3 months of age is 1.3%.
 - Case Classification:
 - Confirmed: 59%
 - Probable: 19%
 - Suspect: 22%
 - 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 5). The majority of adolescent cases are in 10-11 year-olds (Figure 6).

- 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 4 and 5).
- The median case rate by county is 17.5 cases per 100,000 (range 0-139) (Figures 7 and 8 and Table 1).

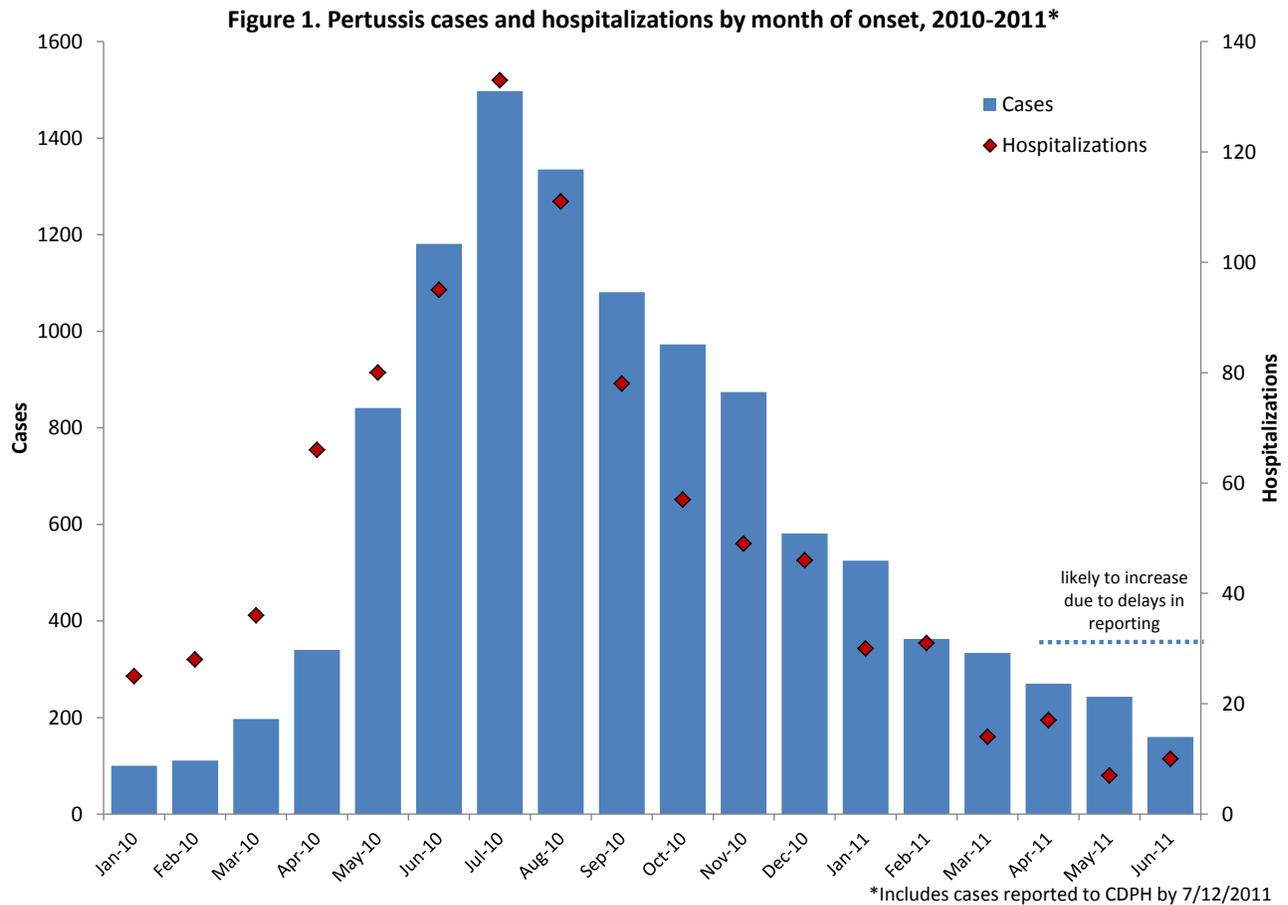
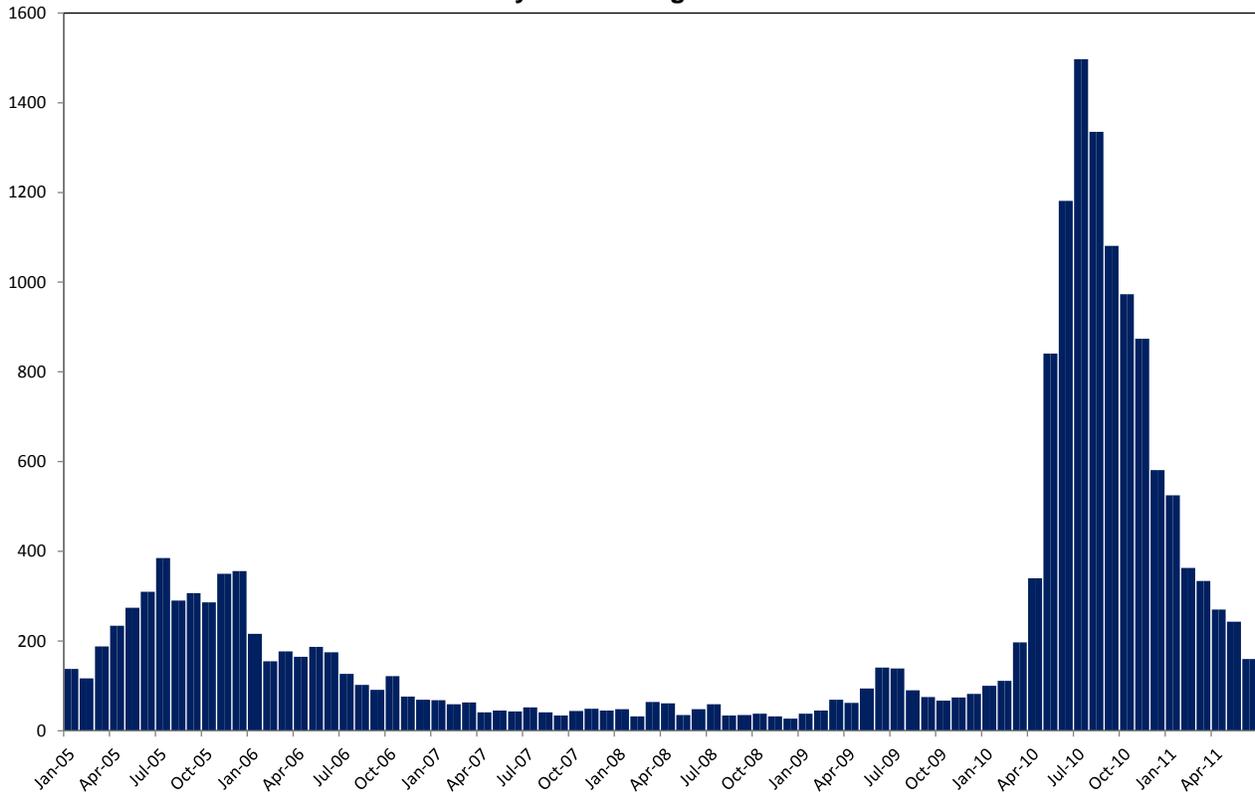
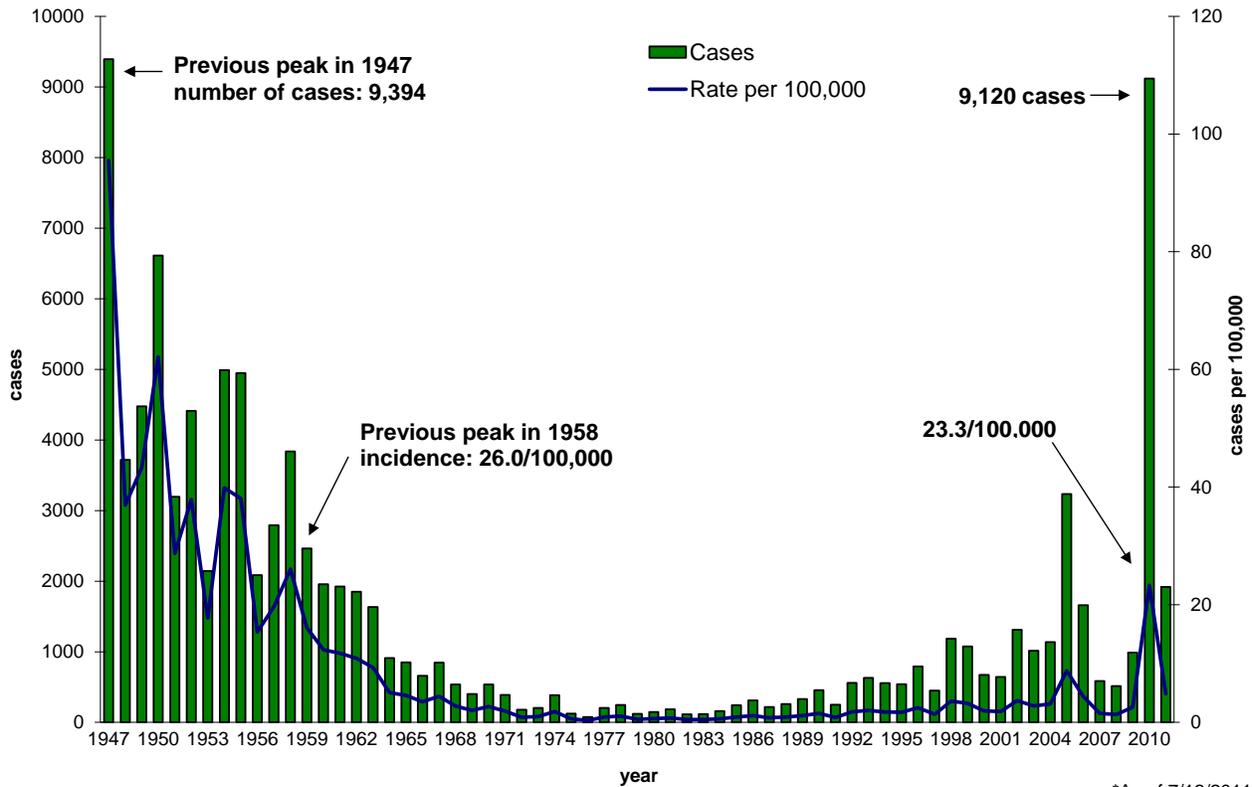


Figure 2. Pertussis cases by month of onset -- California, January 2005 through June 2011*



*Includes cases with onset through 6/30/2011 and reported to CDPH by 7/12/2011

Figure 3. Number of reported pertussis cases by year of onset -- California, 1947-2011*



*As of 7/12/2011

Figure 4. Infant pertussis cases by age in months -- California, 2010

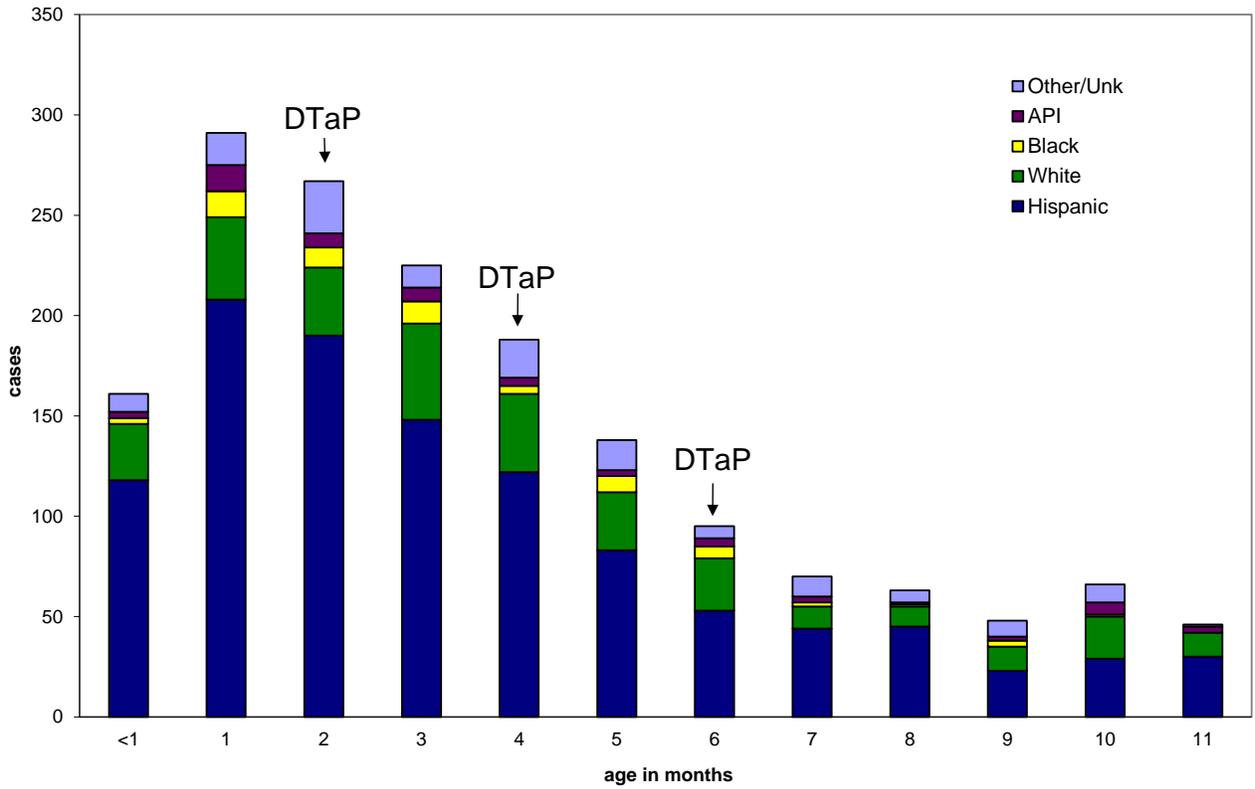


Figure 5. Pertussis cases by age and race/ethnicity -- California, 2010

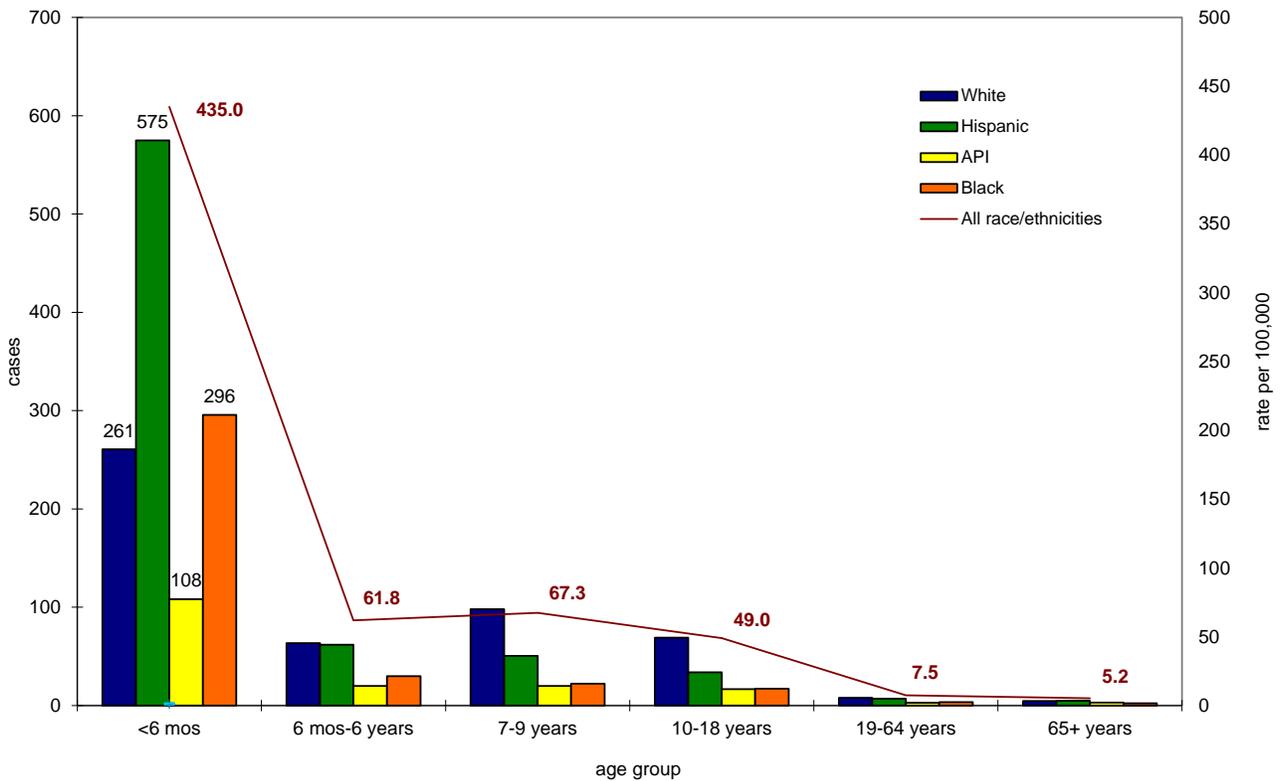
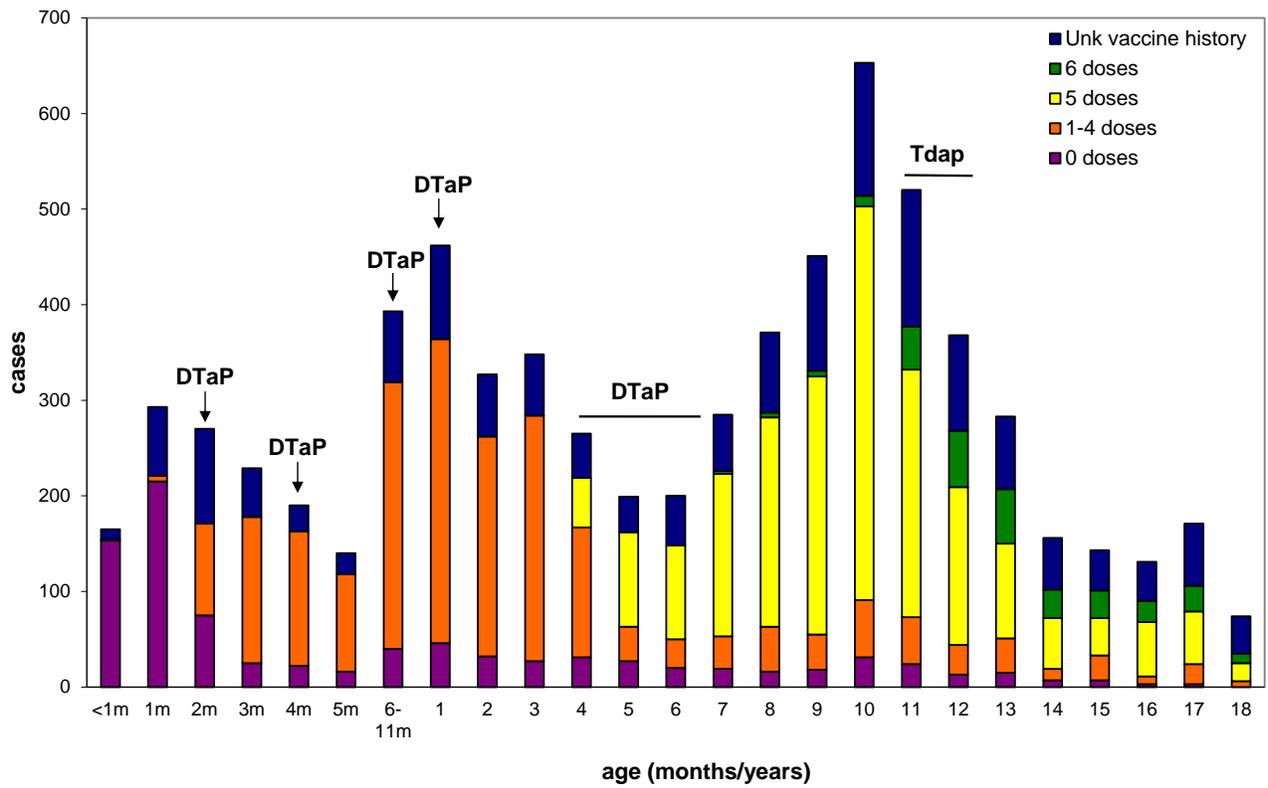


Figure 6. Pertussis cases in children and adolescents aged 0-18 years, by vaccine history -- California, 2010



**Figure 7. Pertussis rates by county – California, January 1, 2010- December 31, 2010
(updated 5/16/2011)**

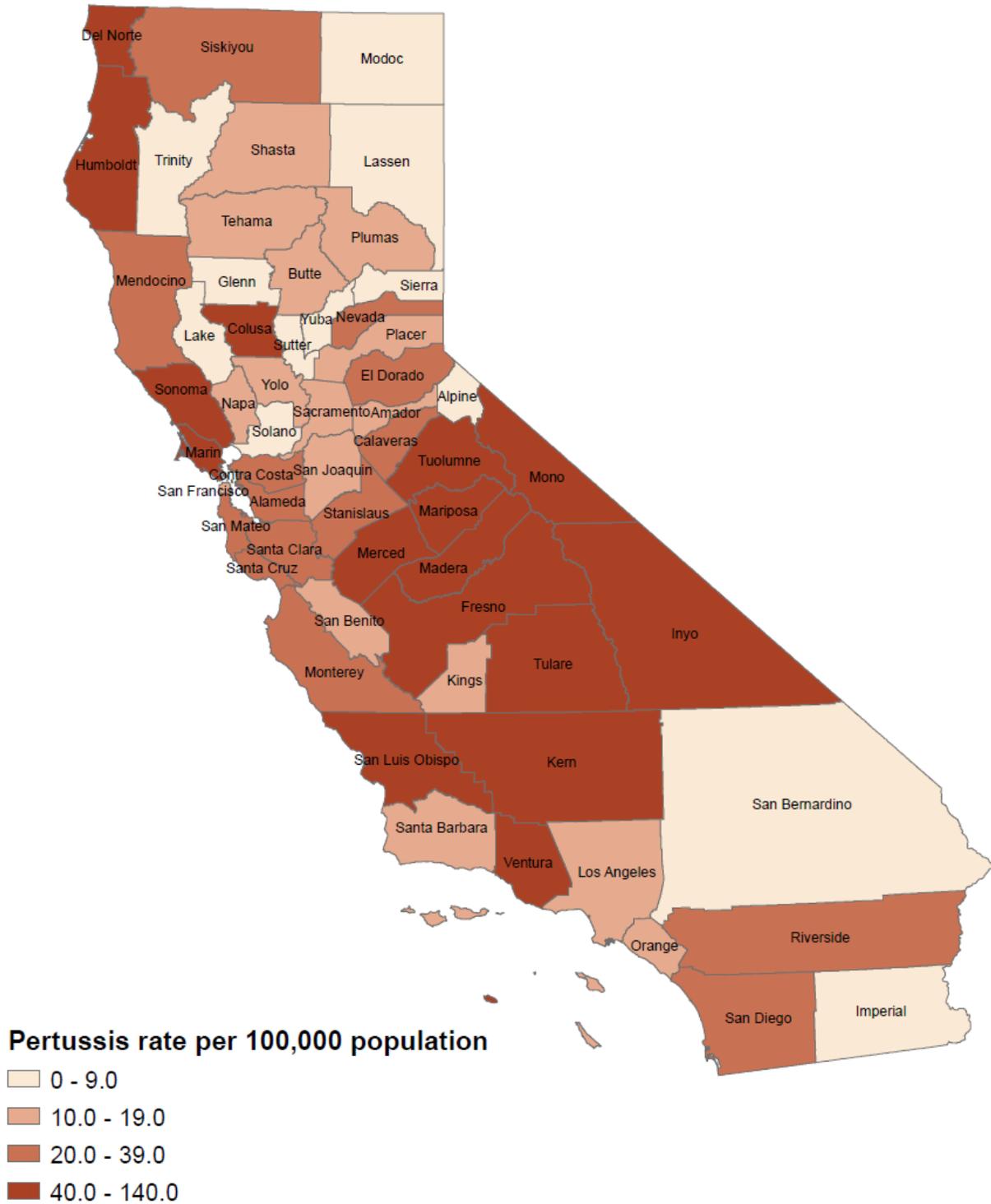


Figure 8. Pertussis rates (person days) by county – California, January 1, 2011- July 12, 2011

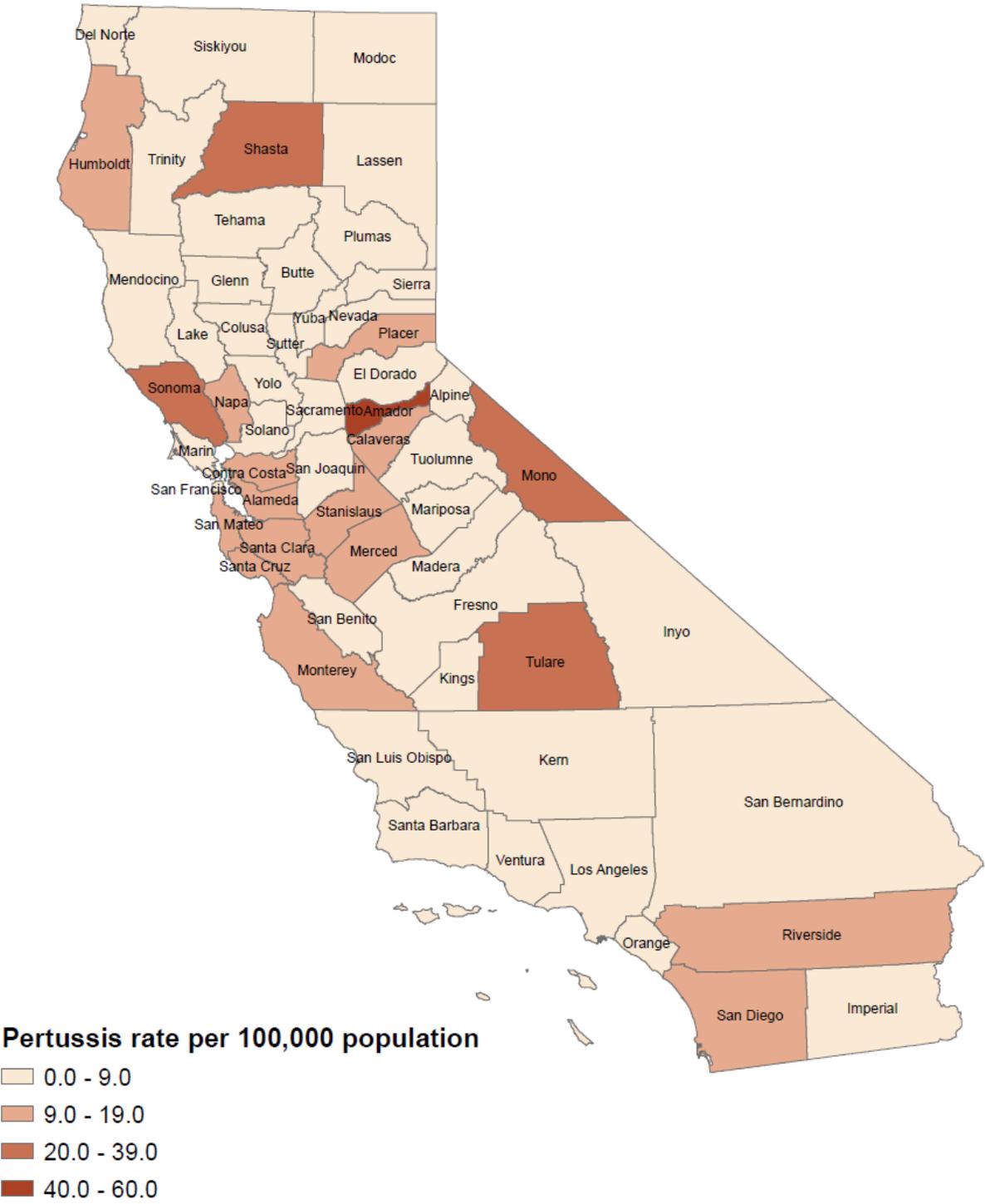


Table 1. Pertussis cases reported to CDPH by local health jurisdiction -- California, 2010-2011

	2010		2011*	
	Cases	Rate	Cases	Rate**
CALIFORNIA	9120	23.30	1918	9.13
ALAMEDA	422	29.25	115	14.91
City of Berkeley†	12	11.20	4	7.04
ALPINE	0	0.00	0	0.00
AMADOR	4	9.92	13	59.70
BUTTE	32	13.91	11	8.83
CALAVERAS	9	18.85	4	15.52
COLUSA	11	46.24	0	0.00
CONTRA COSTA	206	19.15	79	13.66
DEL NORTE	16	51.64	0	0.00
EL DORADO	55	29.05	5	4.90
FRESNO	555	56.43	40	7.51
GLENN	1	3.24	1	5.98
HUMBOLDT	59	43.77	9	12.52
IMPERIAL	9	4.74	3	2.91
INYO	8	41.70	0	0.00
KERN	375	43.02	39	8.24
KINGS	26	15.80	8	8.96
LAKE	5	7.40	1	2.75
LASSEN	1	2.64	0	0.00
LOS ANGELES	1302	13.19	420	7.98
City of Long Beach†	69	14.00	6	2.30
City of Pasadena†	21	13.98	2	2.51
MADERA	120	74.02	5	5.64
MARIN	348	137.18	10	7.42
MARIPOSA	10	52.33	0	0.00
MENDOCINO	27	28.98	2	4.01
MERCED	132	48.19	22	14.77
MODOC	0	0.00	0	0.00
MONO	19	128.09	2	24.93
MONTEREY	118	27.23	22	9.49
NAPA	25	17.51	9	11.73
NEVADA	23	22.41	2	3.63
ORANGE	501	15.52	74	4.28
PLACER	50	14.39	17	9.03
PLUMAS	2	9.16	1	8.60
RIVERSIDE	469	20.95	124	10.16
SACRAMENTO	188	12.95	40	5.14
SAN BENITO	7	10.90	3	8.57
SAN BERNARDINO	181	8.31	62	5.27
SAN DIEGO	1146	35.82	233	13.59
SAN FRANCISCO	143	17.48	36	8.26
SAN JOAQUIN	85	11.46	16	3.96
SAN LUIS OBISPO	375	139.03	9	6.24
SAN MATEO	189	25.66	40	10.20
SANTA BARBARA	64	14.73	12	5.18
SANTA CLARA	473	25.74	163	16.59
SANTA CRUZ	87	32.46	13	9.08
SHASTA	32	16.69	22	21.29
SIERRA	0	0.00	0	0.00
SISKIYOU	10	21.23	0	0.00
SOLANO	37	8.39	2	0.84
SONOMA	246	49.66	92	34.72
STANISLAUS	164	29.30	28	9.22
SUTTER	5	4.89	1	1.78
TEHAMA	10	15.25	2	5.64
TRINITY	0	0.00	0	0.00
TULARE	233	49.90	55	21.64
TUOLUMNE	32	54.49	0	0.00
VENTURA	346	40.43	35	7.63
YOLO	20	9.70	4	3.59
YUBA	5	6.22	0	0.00

*Data are preliminary and include cases reported to CDPH as of 7/12/2011

**Rate calculated using observed person-days

†City health jurisdictions not included in county total